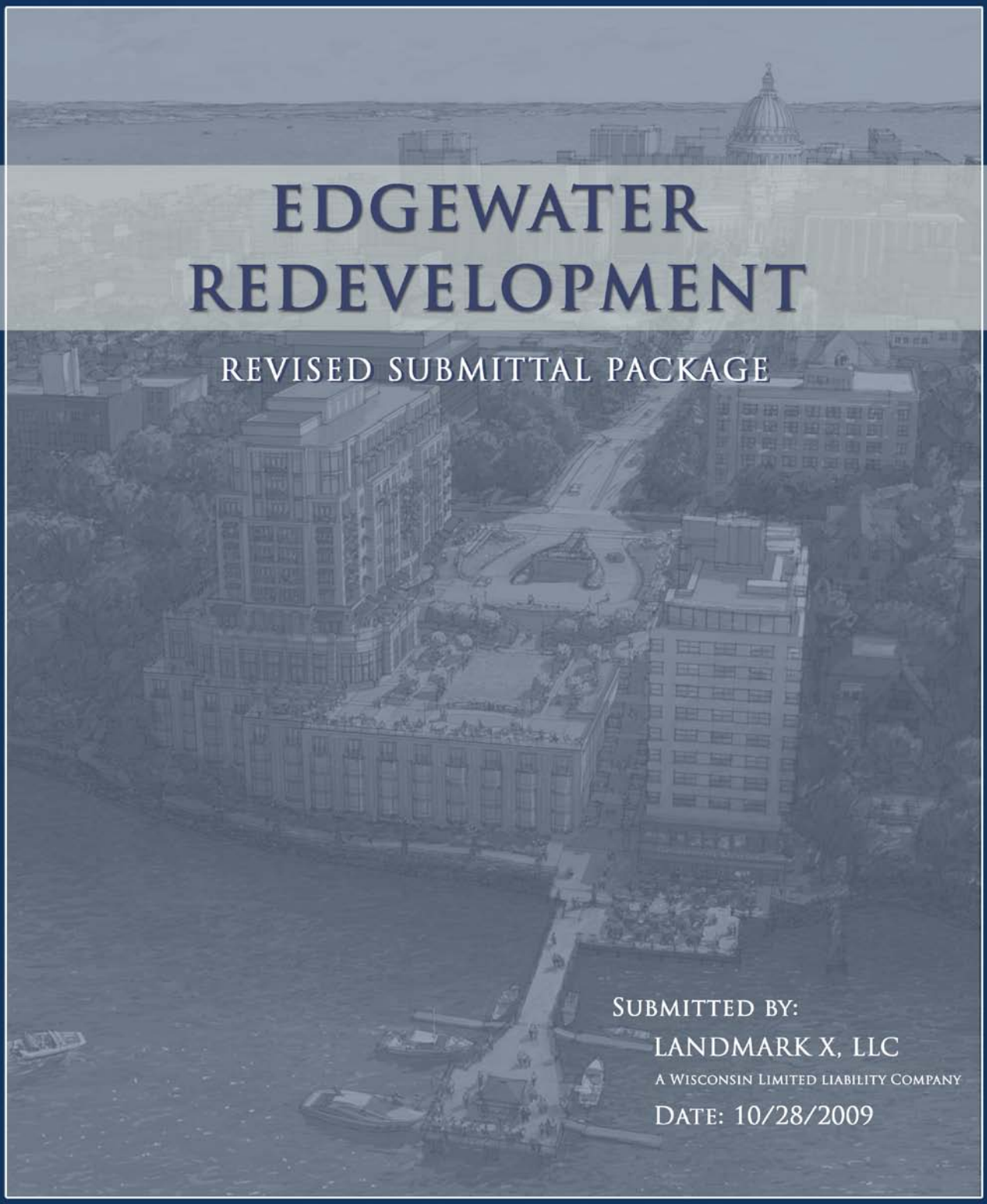


EDGEWATER REDEVELOPMENT

REVISED SUBMITTAL PACKAGE

SUBMITTED BY:

LANDMARK X, LLC

A WISCONSIN LIMITED LIABILITY COMPANY

DATE: 10/28/2009

Hammes Company

22 East Mifflin Street, Suite 800
Madison, Wisconsin 53703
Tel: 608 274 7447 Fax: 608 274 7442

October 28, 2009

Mr. Brad Murphy
City of Madison
Planning and Development Department
215 Martin Luther King Jr. Boulevard
PO Box 2985
Madison, WI 53701

RE: UPDATED PUD SUBMITTAL PACKAGE FOR
EDGEWATER HOTEL REDEVELOPMENT, 666 WISCONSIN AVENUE, MADISON, WI 53703

Dear Mr. Murphy,

On behalf of Landmark X, LLC, a Wisconsin Limited Liability Company ("Landmark"), I am pleased to submit the following updated/revised plans for the proposed Edgewater Redevelopment.

These plans reflect the culmination of efforts over the last several months to respond to the feedback, input and concerns that we have received during the first phase of the public entitlements process. We have worked diligently to find good, creative solutions to address the primary concerns and challenges of the Project. We have met several times with members of Capitol Neighborhoods Inc, other neighborhood residents/property owners, City staff and other stakeholders to receive feedback on the revisions as they have advanced. We have scheduled a listening session on November 5, 2009 to engage in a public dialog related to the revisions.

The attached includes a summary of the primary changes to the Project, an updated copy of the Zoning Text and an updated version of the architectural and civil planning documents.

We look forward to the opportunity to discuss the Project with you in more detail.

Thank you.

Sincerely,
HAMMES COMPANY

Amy Supple
Development Director

Executive Summary

Attached with this outline are updated conceptual plans and renderings of the planned redevelopment of the Edgewater Hotel. These plans have been revised to respond to the feedback, questions and concerns that have been received on the Project during the public entitlements process. A list of key changes to the design is included below. A more detailed outline of each of these points follows:

Primary Revisions to Edgewater Redevelopment Plan:

- Reduced height of expansion tower by 3 stories/30 feet;
- Reduced penthouse structure, no encroachment on Capitol View Limit;
- Height is compatible to National Guardian Life Building and Kennedy Manor;
- Removed top level of 1970's low-rise building;
- More than 20 feet of height (2 stories) and 380,000 cubic feet of volume has been removed from the previous proposed design;
- Plaza is terraced, vehicular traffic is removed from view corridor;
- Enhanced configuration and flexibility of public spaces;
- Significantly enhanced experience on Grand Stair to the waterfront;
- The 1940's building becomes a feature of the development;
- Total program of the building has been reduced by nearly 100,000 SF;
- The new podium building is setback 35 feet from shoreline;
- The hotel program has been reduced from 228 to 180 – 192 rooms;
- Added potential to include 8-10 high-end residential units;
- Reduced program from 364 to 226 stalls;
- Architecture has been advanced to incorporate signature design elements.

Figures 1.0 - 1.2 provide illustrations of the proposed plan revisions. The pages that follow provide a more detailed summary of each of the above referenced changes.

Reduced Height By 3 Stories / 30 Feet

The proposed expansion tower has been reduced by 3 stories and a total of 30 feet in height. The last occupied floor of the expansion tower has been lowered from 187'-2" (the Capitol Height Limit) to 157'-1" which is equivalent to the height of the last occupied floor of the adjacent National Guardian Life building. Figure 1.3 illustrates the height of the proposed tower in relation to the previously proposed design.

Reduced Penthouse Structure / No Encroachment on Capitol View Limit

Two significant concerns of the previous plan were the size of the proposed penthouse and the proposed Conditional Use Permit that would have been required to allow for this structure to pierce the Capitol Height Limit in accordance with the provisions of the Madison General Ordinances.

The revised plan has reduced the size and profile of the penthouse structure. The height of the penthouse no longer penetrates the Capitol Height Limit and will not require the additional approval for a Conditional Use Permit.

Height Compatible with National Guardian Life and Kennedy Manor

The proposed expansion has been designed so that the last occupied floor is equal in height to the National Guardian Life Building. Additionally, the top two-floors of the building have been set back from the lower floors and this setback has been established to be generally consistent with the height of Kennedy Manor, which sits on the opposite street corner from the proposed expansion. Figure 1.3 illustrates the relationship of height of the building in the revised plan as compared to these surrounding structures. Figure 1.4 provides an aerial of the site and images of the surrounding buildings.

Removed Top Level of 1970's Expansion / Height and Volume Reduction in Right-of-Way

Landmark has proposed to remove the top level (20+ feet) of height and 295,000 cubic feet of volume from the 1970's expansion which was built in the vacated Wisconsin Avenue right-of-way. This change will not only result in an enhanced terrace and public space at the water, but will also restore one of Madison's most important street-end views.

This change has significant impacts for the public view from the street to the lake and from the lake back to the State Capitol. Additionally, the removal of this existing structure will transform this corridor from a solid structure to an open, active public terrace at the lakefront. Figure 1.5 provides a sectional illustration of the existing and proposed conditions for the terrace.

Plaza Terrace, Vehicular Traffic Removed from View Corridor

The removal of the 1970's building has allowed the Terrace at Mansion Hill to be reconfigured and the vehicular drive/hotel drop off to be lowered below the street-end view. Cars will now enter the site and circulate down to the parking entrance/hotel drop-off.

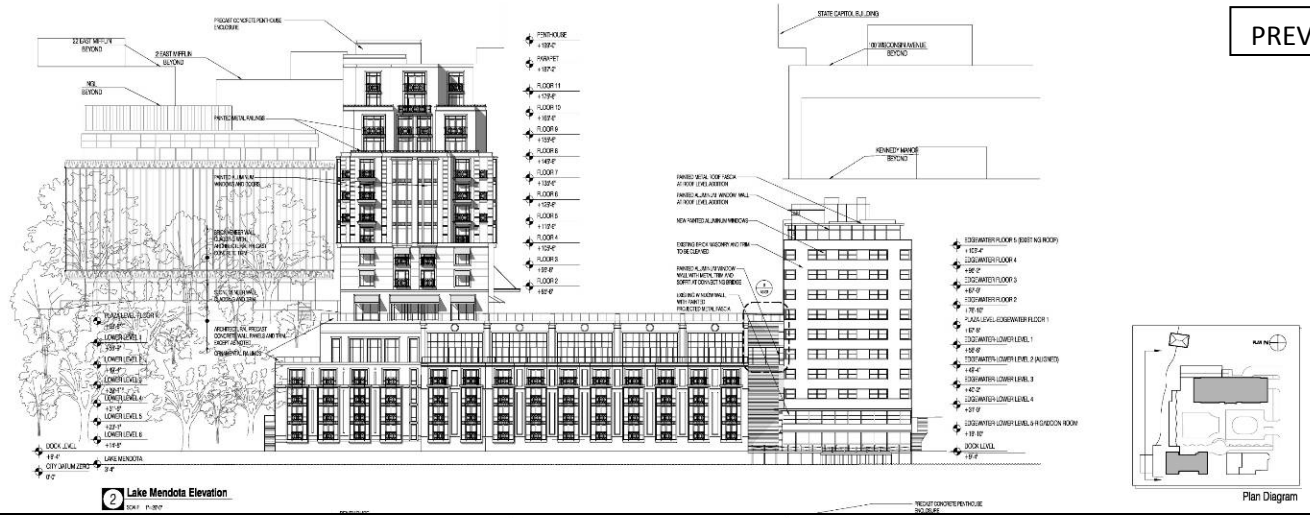
Additionally, we have re-oriented the bus drop off and loading dock so as to provide an enclosed dock/staging area at the Northeast side of the building. Buses dropping off guests, vans and taxis will also be able to stage in a drop-off area which is outside of the view corridor along the private drive on Langdon Street.

Figure 1.0 Aerial Rendering

Figure 1.1 Existing View

Figure 1.2 Opened View Over Terrace

PREVIOUS PLAN



REVISED PLAN

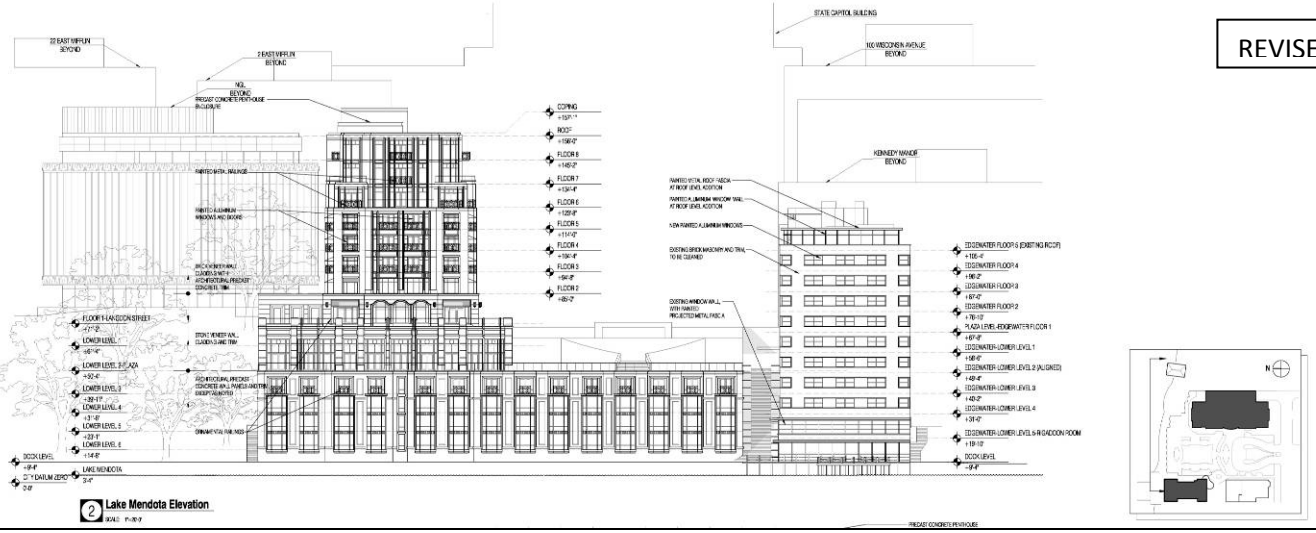
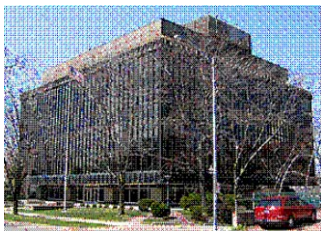
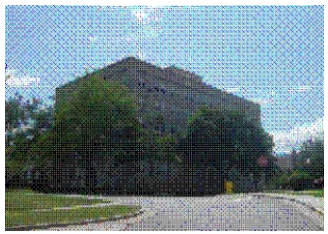
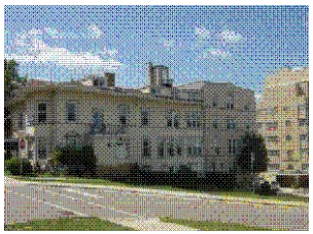


Figure 1.3 Previous Lakefront Elevation as Compared to Revised Lakefront Elevation


NGL Building


Kennedy Manor


2 Langdon Street


10 Langdon Street


12 Langdon Street


Ambassador

Figure 1.4 Summary of Existing Building

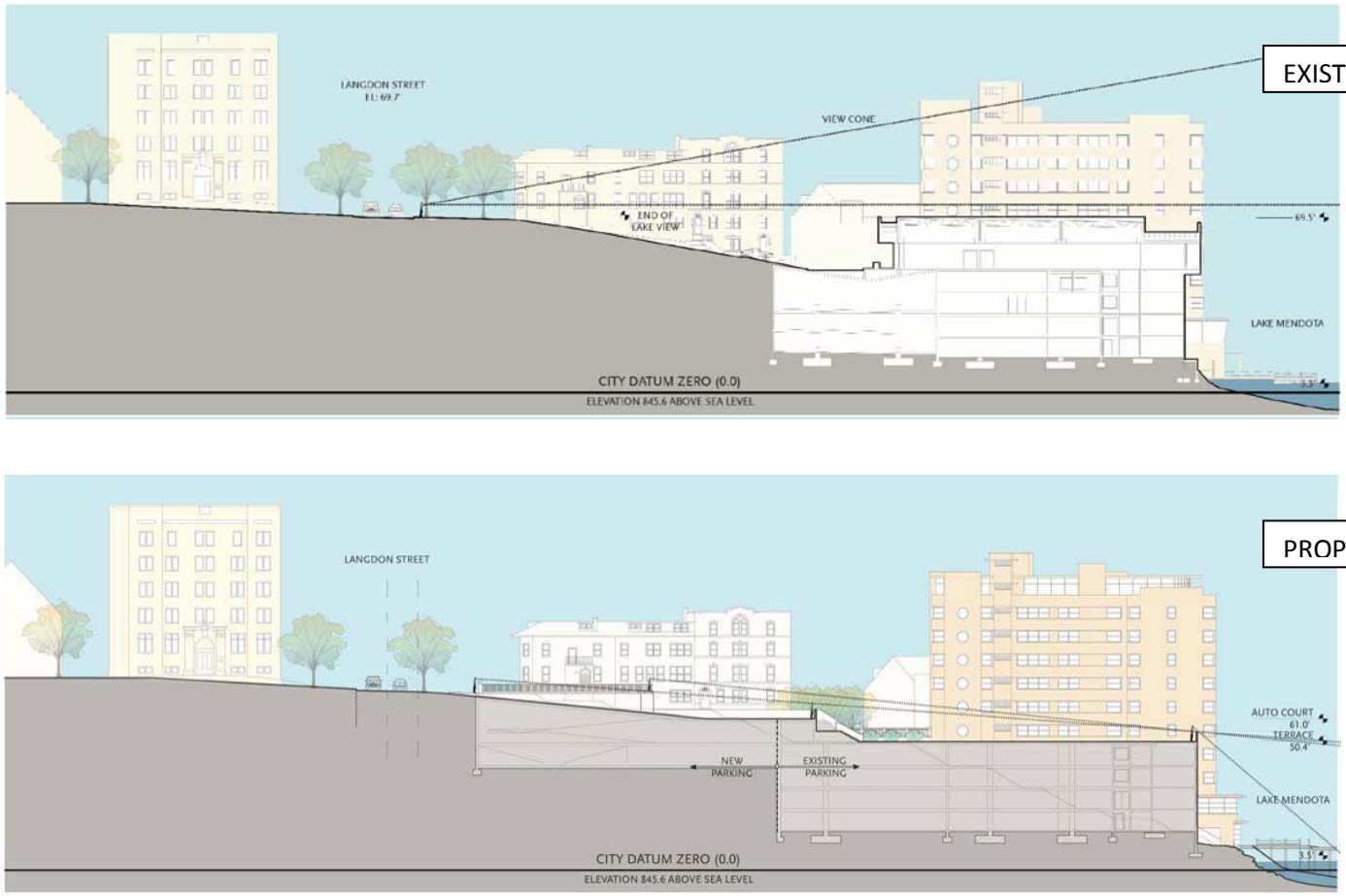


Figure 1.5 Sectional Comparison Existing vs. Revised

Figure 1.6 Site Plan

Enhanced Configuration and Flexibility of Public Spaces:

While the program of the building has been significantly reduced, the public outdoor space has been maintained and enhanced under the revised design.

The space is configured in a series of terraces that extend from Langdon Street to the waters edge. Although a significant amount of program has been cut from the building, we have maintained the public outdoor space and reduced those spaces dedicated solely to hotel use.

Furthermore, the configuration of the plaza has been significantly enhanced with the main terrace being reconfigured to provide more flexibility in the space that will allow programming / events to occur while maintaining significant areas that the public can access on an on-going basis. A summary of the square footage of outdoor areas is included below.

	Previous Design	Revised Design
Outdoor Plaza / Public Spaces	47,210 SF	47,240 SF
Dedicated Hotel Spaces	3,996 SF	3,683 SF
Total Without Dock	51,206 SF	50,923 SF

Significantly Enhanced Grand Stair:

The public experience on the Grand Stair has also been significantly enhanced by the proposed changes to the terrace. The revised configuration of the auto-court will allow the top level of the stair to be completely open with a low berm/knee wall along the site as the stair descends from Langdon Street to the mid-level terrace. The pedestrian walking down the stair will have an unobstructed view over the terrace out to the lakeshore. This configuration has an added benefit to the 2 Langdon building in that it not only enhances access to that building but also open lake views for the lowest units.

The stair has also been enhanced on the second run that extends from the mid-level terrace to the lake. By removing more than 20+ feet of structure along the north wall, the stair has become much more open and accessible to daylight. Additionally, by removing the bridge structures the design will now provide an unobstructed view to the water.

1940's Building Becomes a Feature:

A primary benefit of removing the top level of the 1970's building is that it will expose significantly more of the original 1940's hotel tower. The original Edgewater is designated as a "Priority Building" in the 1975 Historic District plan and these proposed changes will restore the prominence of the building both from the street and lakeside elevations.

As part of the changes to the façade we have re-oriented the connection between the low-rise building and the 1940's tower to a tunnel which will slip under the Grand Stair. This prevents the need to punch openings in the 1940's façade to accommodate the bridge connections that were previously proposed.

An important element of the proposed design is that we would like to incorporate some of the specialized design features that were shown in the original rendering to provide a more iconic entrance and presence for the building on the terrace.

Total Program Reduced by Nearly 100,000 Square Feet Gross Square Footage – Building:

The estimated gross square footage of the building has been reduced by nearly 100,000 square feet. A summary of the program changes is provided below:

	Previous Proposal	Revised Proposal
Guest Rooms/Living Areas	140,868 SF	118,724 SF
Circulation	57,188 SF	57,533 SF
Function Space	13,772 SF	9,542 SF
Restaurant / Bar/Café Areas	13,805 SF	11,745 SF
Spa/Health/Fitness	10,177 SF	10,400 SF
Office/Administrative	8,561 SF	5,125 SF
Back of House/Mechanical:	45,097 SF	36,460 SF
Parking	168,397 SF	115,092 SF
Total Gross Building Area	457,865 SF	364,621 SF

New Podium Building is Setback from the Shoreline:

The proposed podium building has been pulled back from the shoreline in a series of step backs which provide a minimum 30 foot buffer between the edge of the building and the shore of Lake Mendota. This change has softened the edge of the building at the shoreline, allowed the plan to incorporate a small public green space along the waterfront and provides the opportunity for vegetation and trees to wrap the side of the new building along the lakefront.

Reduced Program from 228 Rooms to 180-192 Rooms:

The proposed expansion of hotel rooms has been reduced by approximately 40 rooms. This reduction is a result of lowering the height of the expansion tower but will also result in a reduction of traffic, parking and operational concerns that have been raised by the neighborhood.

Potential Addition of 8-10 Residential Units:

The plan incorporates the ability to incorporate 8-10 residential units as part of the proposed development. While the condominium market in downtown Madison has been suppressed by the recent economy, there has been a significant amount of interest in the potential for units that are located on the waterfront and which are part of a quality hotel environment.

The addition of owner-occupied residential units speaks directly to one of the primary goals stated by Capitol Neighborhoods, Inc. and the City of Madison for the Mansion Hill Historic District.

Reduced Parking Program from 364 to 226 Stalls:

With the reduction of room, restaurant and banquet program we have also been able to reduce the amount of structured parking that is incorporated into the Project. Our parking ratios are at 1.3 to 1.5 per room, well above the City's required ratio of 1 per room. Additionally, enhancements have been made to improve the ability to valet park on remote lots around the site which will significantly mitigate the impact from large events at the hotel.

Refinement of Architecture:

Detailed architectural plans are included in the attached package. While still consistent to the design philosophy of the original plan, the architecture has been refined to incorporate more articulation and variation in the pattern of windows, opening and balconies along the façade. We have varied the design on the upper floors and lakefront to provide a more transparent facade and to blend elements of more modern architecture with classic design elements. We have also added round windows, canopy elements and signage that will relate to the proposed restoration of the original Edgewater hotel tower.

EDGEWATER HOTEL PLANNED UNIT DEVELOPMENT DISTRICT
666 WISCONSIN AVENUE
MADISON, WISCONSIN

ZONING TEXT

The following Zoning Text (the "Zoning Text") has been prepared on behalf of Midwest Realty and Investment Corporation (the "Owner"), for the Edgewater Hotel Planned Unit Development District (the "District"), located at 666 Wisconsin Avenue in Madison, Wisconsin as more particularly described on the attached Legal Description incorporated herein by reference as **Exhibit I**.

WHEREAS, the District has been established to allow for the redevelopment and expansion of the existing Edgewater Hotel, located at 666 Wisconsin Avenue in Madison, Wisconsin and related property as more definitively described in **Exhibit 1** attached hereto.

WHEREAS, the approval of this District is occurring simultaneously with the approval of other specific documents and / or agreements to be executed between the City of Madison (the "City") and the Owner as more particularly described herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the Zoning Text for the Edgewater Hotel Planned Unit Development District shall contain the following:

Legal Description of Site:
The site (the "Site") includes approximately 1.64 acres of land in four (4) separate parcels as are more particularly described in **Exhibit I** attached hereto. Parcel 1 includes the land area that encompasses the original 1948 hotel tower. Parcels 2 and 3 include the land area that encompasses the low-rise addition of the hotel that was constructed in the early 1970's. Parcel 2 defines the boundaries of that portion of the site that was previously the Wisconsin Avenue right-of-way. The area included as Parcel 2 was vacated by Ordinance No 1761, File No. 4600 adopted in 1965 and amended thereafter as described later in this Zoning Text. Parcel 3 includes the balance of the land area on which the 1970's addition is located. Parcel 4 includes land area that will be purchased from National Guardian Life and incorporated as part of the Site. For the purpose of this Zoning Text the Site shall define the boundaries of the District.

Additional Leased Area:
In addition to the Site, the Owner shall lease approximately .38 acres of land located within the Wisconsin Avenue right-of-way immediately adjacent to the Site and as is further described in **Exhibit II** attached hereto (the "Additional Leased Area").

The surface of the Additional Leased Area shall remain part of Wisconsin Avenue and shall serve as a public plaza, pedestrian pathway and vehicular turn-around and drop off area in a manner similar to the way the street-end functions as of the date this District is approved. For the purpose of this Zoning Text the surface area shall be considered part of the Wisconsin Avenue right-of-way and shall be subject to the provisions of Section 10 of the Madison General Ordinances governing Streets, Alleys, Sidewalks and Gutters, except that the operation and maintenance of this area shall become the responsibility of the

Owner as is more particularly described in a Management Agreement to be executed between the City and the Owner.

The City and Owner shall enter into a subterranean ground lease (the "Ground Lease") which shall dictate the terms and conditions under which improvements will be made, used and maintained within the Additional Leased Area. The terms and conditions of the Ground Lease shall be consistent with the terms of this Zoning Text to allow for the seamless use, operation and maintenance of the Project within the Project Area as defined below. Approval of the Ground Lease shall be a condition of approval of the District and such approvals shall occur simultaneously.

Project Area:
Collectively, the Site and the Additional Leased Area shall be defined as the project area (the "Project Area"). The Project Area includes approximately 2.02 acres of land.

Permitted Uses:
The following describes the permitted uses within the District and Project Area:

1. Those uses permitted and allowed in OR-Office Residence District, and;
2. Uses related to the operation of a high-quality hotel, involving amenities and guest services comparable with industry standards for similar hotels in similar markets and which may include guest rooms, guest suites, extended stay suites, bars, restaurants, spa, fitness facilities, limited retail uses, offices, underground parking areas, public plazas and terraces, and;
3. Lodging rooms, and;
4. Multi-family residential uses, and;
5. Uses accessory to the permitted uses as listed above, and;
6. Above grade vehicular drop off area;
7. Below-grade parking structure, and;
8. Bicycle parking areas;
9. Public/urban open spaces including outdoor plazas, stairways, terraces, etc, and;
10. Outdoor seating for eating and recreational uses in areas associated with the hotel, restaurant(s) and / or other uses that serve both alcoholic and non-alcoholic beverages, and;
11. Pier and dock structures;
12. Rooftop Installations, and;
13. Other uses as described herein.

Hours of Operation:
The hours of operation ("Hours of Operation") of the occupied spaces will be varied. It is anticipated that activity will occur within portions of the District on a twenty-four (24) hour basis. The Hours of Operation of the Outdoor Areas/Public Spaces will be described in a Management Agreement to be executed between the City and the Owner.

Floor Area Ratio/ Building Height:
The Project floor area ratio (FAR) is calculated by taking the total gross area of the building less the below grade parking area to get the total occupied gross building area. The total occupied gross building area is then divided by the Project Area to define the FAR. The calculated FAR based on the Project Area is 2.81. The calculated FAR based on the Site Area (exclusive of the Wisconsin Avenue right-of-way) is 3.44.

Yard Area Requirements:
Yard areas will be provided as shown on the attached planning documents included in **Exhibit II** attached hereto.

Bulk Contingency:
The bulk standards for the Project shall be established based on provisions outlined in this Zoning Text. So as to specifically restrict the Project from setting a precedent for development in the City of Madison, the Project shall be required to meet the following conditions in order to receive approval for the Bulk Standards outlined herein:

1. The Project shall be located on a lot or collective lots of not less than 1.0 acre;
2. The Project shall have vehicular access directly onto, or across a private drive, to at least one (1) street with a right-of-way width of not less than 80 feet;
3. There shall be not less than 15,000 square feet of open space in the Project;
4. Public access to said open space shall be granted in accordance with an agreement(s) with the City of Madison;
5. As a development along the waterfront, a path of public access across the Project Area to the waterfront shall be constructed and maintained as part of the Project in accordance with an agreement(s) with the City of Madison;
6. As a waterfront development, the Project shall include the construction and maintenance of a public walkway of not less than six (6) feet in depth parallel to the waterfront. Said walkway shall connect to any adjacent waterfront walkways to the extent such walkways exist at the time of said development.

Amendment to Existing Ordinance Number 1761, File Number 4600-41:
The above referenced ordinance was adopted on January 28, 1965 and provided for the vacation of a portion of Wisconsin Avenue to allow for the expansion of the Edgewater Hotel within said vacated right-of-way. The Ordinance was further amended on November 10, 1966, September 20, 1967, September 28, 1967 and November 9, 1971. Copies of the existing Ordinance and amendments thereto is attached hereto as **Exhibit IV-A** of this Zoning Text.

The Ordinance shall be further amended under terms and conditions agreed to by the City of Madison and the Owner. A copy of the amendment to the Ordinance is attached hereto as **Exhibit IV-B** to this Zoning Text. Approval of the amendment shall be a condition of approval of the District and such approvals shall occur simultaneously.

Landscaping:
Site landscaping will be included in the areas shown on the attached site plans included in **Exhibit II** attached hereto. Site landscape areas shall include areas on public plazas, external stairways, along the façade of buildings and along public walkways at the waterfront. Decorative flower boxes will be included on certain balconies and railings on the building.

Accessory Off-Street Parking and Loading:
The District shall include a minimum of 226 below-grade parking stalls. Approximately 154 of these stalls are part of the existing below grade parking structure. The remaining stalls shall be constructed in the Additional Leased Area as further described in this Zoning Text.

The Project shall include a loading dock and service area which has room to store trash and recycling bins in an interior loading dock area. The design and exterior appearance of the entrance to such parking stalls and loading berths shall be consistent with the architecture of the building and will be generally consistent with the elevations attached hereto in **Exhibit II**.

The Owner shall submit for separately a plan for the redevelopment of the two surface parking lots and a connecting driveway on two separate parcels owned by National Guardian Life Insurance Company. As part of the conditions of the sale of parcel 4 to the Owner, the Owner has agreed that it will re-build/expand the two surface parking areas to replace the existing surface parking which is displaced by the Project. The total number of stalls to be constructed is 39 stalls. The existing surface lots hold 34 stalls. The replacement parking areas are identified in the Site Plan attached as part of **Exhibit II**.

Lighting:
Electrical reflectors, spotlights, floodlights and other sources of illumination may be used to illuminate buildings, landscaping, street graphics, signage, parking and loading areas and public areas within the District. Such lighting shall be equipped with lenses or other devices which concentrate the illumination upon such buildings, landscaping, street graphics, signage, parking areas, loading areas and outdoor public areas as required. All lighting shall be reflected away from any residential uses adjacent to the District.

Signage:
Signage will be allowed as per Chapter 31 of the Madison General Ordinances and/or as outlined in the future submittals for the proposed development.

Open Space (On Site):
The Site, which comprises the areas not included in the Wisconsin Avenue right-of-way, includes approximately 34,833 square feet of Open Space as part of the Project. For the purpose of this Zoning Text, Open Space shall include: 1) those areas defined as Outdoor Plazas/Public Spaces which shall be accessible to the general public under the terms and conditions of a Management Agreement and; 2) those areas which are dedicated solely to the use of the hotel, restaurants or other uses within the Project and which are consistent with the definition of Open Space in the Section 28 of the Madison General Ordinances but which are not part of the Outdoor Plazas/Public Spaces as defined in this Zoning Text (the "Dedicated Spaces"). By way of reference, some of the Open Space areas that are Dedicated Spaces to the Hotel include, but are not limited to, the rooftop balcony on the 1940's building which is part of the meeting/function spaces on that level of the hotel and the outdoor terrace outside of the ballrooms on Level 5 of the Project.

Outdoor Plazas / Public Space (In Total Project Area):
The Project Area, which encompasses both the Site and the Additional Leased Area within the Wisconsin Avenue right-of-way, includes approximately 47,600 square feet of outdoor plazas and public space. These areas include the Terrace at Mansion Hill (The "Terrace at Mansion Hill") leading from the corner of Wisconsin Avenue and Langdon Street to the waterfront, the Gardens on Mansion Hill (The "Gardens on Mansion Hill"), and the grand stair ("Grand Stair") leading to the waterfront from Langdon Street, the skywalk and elevators connecting the plaza to the waterfront, the waterfront path. Once the configuration is determined the pier/dock structures will add additional square footage to the Outdoor Plaza/Public Space. The Outdoor Plazas/Public Spaces will be identified in the Management Agreement.

Areas internal to the hotel (e.g. guest accommodations, ballrooms, spa/fitness areas, offices, restaurants, etc.) and Dedicated Spaces shall not be included as part of the Outdoor Plaza/Public Space as defined in this Zoning Text.

Rooftop Installations:
The Owner shall be permitted to add rooftop installations including, but not limited to, elevator equipment, cellular equipment, satellite equipment and mechanical equipment in the locations designated on the approved plans attached hereto as **Exhibit II**.

Alterations and Revisions:
No alteration or revision of this planned unit development shall be permitted unless approved by the City Plan Commission, however, the Zoning Administrator may issue permits for minor alterations or additions which are approved by the Director of Planning and Development and the Alderperson of the district and which are compatible with the concept approved by the City Plan Commission.

EXHIBIT I
LEGAL DESCRIPTION

PARCEL DESCRIPTIONS:

PARCEL 1
All that part of Lot Five (5), lying Northwest of the Southeast 126 feet thereof, in Block Seventy-eight (78), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin.

PARCEL 2
All of that portion of vacated Wisconsin Avenue, in the City of Madison. Dane County. Wisconsin, lying Northwesterly of a line parallel to the Northwesterly line of Langdon Street extended Northeasterly and 126 feet Northwesterly from such extended line of Langdon Street.

PARCEL 3
Part of Block Two Hundred Sixty-three (263), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin, described as follows: Beginning at the most southerly corner of Block 94, said point being the point of intersection of the Northwest line of East Gilman Street with the Northeast line of Wisconsin Avenue; thence Northwesterly along said Northeasterly line of Wisconsin Avenue 383.6 feet to the point of beginning of this description; thence Northeasterly at right angles to last described line 45.0 feet; thence Northwesterly parallel with the Northeast line of Wisconsin Avenue (now vacated) 186.4 feet to an iron stake, on a meander line, which is 36.0 feet more or less Southeasterly from the low water mark of Lake Mendota; thence Southwesterly along said meander line 45.0 feet to an iron stake on the Northeast line of Wisconsin Avenue which is 48.6 feet Southeasterly from the low water mark of Lake Mendota and also 186.4 feet Northwesterly from the point of beginning; thence Southeasterly along said line 186.4 feet to the point of beginning. Also, all land lying northwesterly of above described meander line to the low water mark of Lake Mendota.

PARCEL 1, 2, & 3 Contain 48,230 SQFT/ 1.O9 Acres more or less.

PARCEL 4
Part of Block Two Hundred Sixty-three (263), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin, described as follows: Beginning at the most southerly corner of Block 94, said point being the point of intersection of the Northwest line of East Gilman Street with the Northeast line of Wisconsin Avenue; thence Northwesterly along said Northeasterly line of Wisconsin Avenue 383.6 feet to the point of beginning of this description; thence N44°54'28"E, 45.32 feet; thence N44°12'40"W, 234.4 feet more or less to the shore of Lake Mendota; thence Northeasterly, 65 feet more or less, along the shore of Lake Mendota; thence S44°12'40"E, 313' feet more or less; thence S45°40'16"W, 105.00 feet; thence N44°47'55"W, 102.70 feet to the point of beginning.

PARCEL 4 Contains 24,140 SQFT/ 0.55 Acres more or less.

EXHIBIT II
PLANS AND SPECIFICATIONS

A copy of the approved plans and specifications are attached as Exhibit II to the Zoning Text for the Edgewater Hotel Planned Unit Development District for the Project Area located in the 2nd Aldermanic District at 666 Wisconsin Avenue, Madison Wisconsin.

[TO BE INSERTED UPON COMPLETION]

EXHIBIT III-A
CITY OF MADISON ORDINANCE
ORDINANCE NO. 1761, FILE NO. 4600-41

A copy of Madison City Ordinance No. 1761 is attached herein as Exhibit VI-A to the Zoning Text for the Edgewater Hotel Planned Unit Development District for the Project Area located in the 2nd Aldermanic District at 666 Wisconsin Avenue, Madison Wisconsin.

[TO BE INSERTED UPON COMPLETION]

EXHIBIT III-B
CITY OF MADISON ORDINANCE
ORDINANCE NO. 1761, FILE NO. 4600-41 – AMENDMENT

A copy of Madison City Ordinance No. 1761 – Amendment is attached herein as Exhibit VI-B to the Zoning Text for the Edgewater Hotel Planned Unit Development District for the Project Area located in the 2nd Aldermanic District at 666 Wisconsin Avenue, Madison Wisconsin.

[TO BE INSERTED UPON COMPLETION]

MEMORANDUM

DATE: October 28, 2009

TO: Amy Supple, Landmark X, LLC

FROM: Betsy Powers and Mark Huber

SUBJECT: Stormwater Management for Proposed Edgewater Hotel Development

An expansion of the Edgewater Hotel is in the planning stages. BT Squared has prepared a preliminary plan for managing stormwater runoff from the proposed development. The conceptual-level design was prepared with the requirements of Ch. 37, City of Madison Ordinances, in mind. Because runoff from the site will be directed to Lake Mendota, water quality, rather than water quantity, is the main concern. Therefore, the key concept for the proposed development is treating runoff from private drive and parking areas prior to discharging to Lake Mendota. The conceptual-level stormwater management plan is shown on **Drawing C1.03** and further described below.

The conceptual stormwater management plan includes grading the auto court, private drive (Langdon Avenue extension), and National Guardian Life (NGL) parking lot to drain to storm inlets. Inlets associated with the auto court and loading dock areas will divert runoff to a treatment device. Inlets associated with the private drive and NGL parking lot will divert runoff to a separate treatment device. The stormwater treatment devices promote the settling of particulates and capture of oil and grease from the runoff. Preliminary sizing of the treatment devices has been performed to meet or exceed City of Madison requirements. Discharge from both treatment devices will be combined into one storm sewer discharge pipe to Lake Mendota. The storm sewer system for the private drive has been designed to accommodate the runoff from a 10-year, 24-hour storm event. The storm sewer system for the auto court area has been designed to accommodate a 100-year, 24-hour storm event, which includes high intensity rainfall over a short period of time.

An existing storm sewer currently routes city street runoff through the property and directly into the lake. The existing storm sewer through the property will be abandoned and stormwater runoff from the city streets will be routed through the new storm sewer and stormwater treatment device. Although it is not required by the City of Madison, the stormwater treatment device will be sized to treat the previously untreated city street runoff. Treated stormwater will be discharged to Lake Mendota via a relocated outfall.

Runoff from the remaining development (e.g., the plaza area and roof areas) will be directed to roof drains, ultimately discharging to the lake. Runoff from these areas is considered clean; therefore, water quality treatment is not required.

Silt fence and temporary diversion berms will be used to control sediment transport during construction. The locations of erosion control devices are shown on **Drawing C1.03**. A detailed erosion control plan will be developed during the next phase of this project.

A summary of the existing and post-development peak discharge rates based on the preliminary design is presented below.

Condition	Peak Discharge Rate (cubic feet per second)		
	2-year, 24-hour storm	10-year, 24-hour storm	100-year, 24-hour storm
Existing	6.3	10.7	16.9
Post-development	9.1	13.6	19.7

Detailed stormwater calculations are attached to this memo.

During the preliminary phase of this project, we are assuming that stormwater infiltration will not be required. Soil borings will be performed at a later date to verify this assumption.

BP/MH
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LEGEND

- EXISTING GRADE (2' CONTOUR)
- EXISTING GRADE (10' CONTOUR)
- EXISTING TREELINE/VEGETATION
- EXISTING SHORELINE
- PROPERTY LINE (SUBJECT PROPERTY)
- PROPERTY LINE/RIGHT-OF-WAY
- EXISTING FENCE
- EXISTING STORM SEWER
- EXISTING STORM INLET
- EXISTING TIME OF CONCENTRATION LINE
- EXISTING IMPERVIOUS AREA
- EXISTING IMPERVIOUS BUILDINGS
- EXISTING IMPERVIOUS DRIVE
- EXISTING PERVIOUS AREA

40 0 40

SCALE: 1" = 40'

N 45° PROJECT NORTH

LAKE MENDOTA
WATER SURFACE=4.6

WOODED

EXISTING 1" DIA. IRON PIPE

EXISTING 1" DIA. IRON PIPE

CONCRETE WALK

TRASH ENCLOSURE

NGL PARKING (ASPHALT)

STAIRS TO UNDERGROUND PARKING

ROCK SHORELINE

CONCRETE WALK

CONCRETE WALK

WOOD DECK

SLOPED ROOF LOWER LEVEL ADDITION

BRICK

BRICK PLANTER

2 LANGDON STREET

LANGDON ST

WISCONSIN AVE

PROJECT NO.	3826	DRAWN BY:	KM
DRAWN:	07/29/2009	CHECKED BY:	BP/MH
REVISED:		APPROVED BY:	

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SITE

EDGEWATER HOTEL REDEVELOPMENT

STORMWATER MANAGEMENT CALCULATIONS
EXISTING CONDITIONS

FIGURE
1 OF 2

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EDGEWATER EXISTING

TOTAL STORMWATER AREA MODELED = 103074 S.F = 2.366253 ACRES

	SQUARE FOOTAGE	ACREAGE
BUILDINGS		
EDGEWATER	27,886	0.6401745
DRIVEWAY		
DRIVE/STREET	30,590	0.7022498
MISC IMPERVIOUS		
WALK/DECK	3,468	0.0796143
DECK	1,644	0.037741
CONCRETE STAIRS	1,779	0.0408402
WALK	1,189	0.0272957
WALK	1,507	0.034596
GARAGE STAIRS	159	0.0036501
PLANTER EDGE	265	0.0060836
CONCRETE	161	0.0036961
	10,172	0.233517
TOTAL IMPERVIOUS	**68,648**	**1.5759412**
PERVIOUS		
PLANTER	1,274	0.029247
MISC PERV	33,152	0.7610652
TOTAL PERVIOUS	**34,426**	**0.7903122**

TOTAL IMPERVIOUS	**68,648**	**1.5759412**	**66.60%**
TOTAL PERVIOUS	**34,426**	**0.7903122**	**33.40%**

Summary for Subcatchment 1S: EXISTING SITE

Runoff = 16.88 cfs @ 11.98 hrs, Volume= 0.814 af, Depth> 4.13"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=6.00"

Area (ac)	CN	Description
0.640	98	Paved parking & roofs
0.702	98	Paved parking & roofs
0.790	61	>75% Grass cover, Good, HSG B
0.234	98	Paved parking & roofs
2.366	86	Weighted Average
0.790		Pervious Area
1.576		Impervious Area

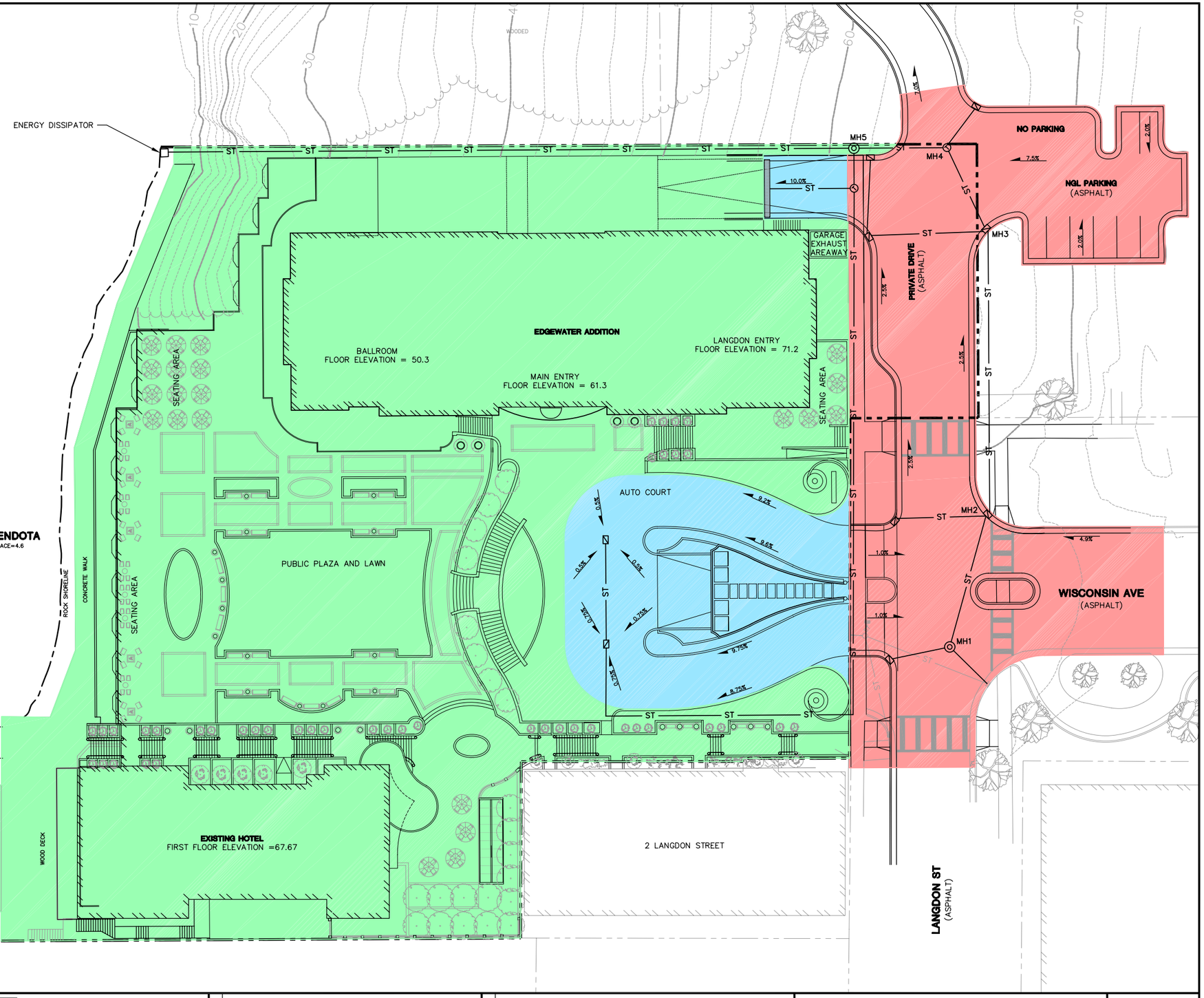
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	100	0.0800	0.28		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 2.90"
0.8	275	0.1250	5.69		**Shallow Concentrated Flow, Grass** Unpaved Kv= 16.1 fps
6.7	375	Total			

Events for Subcatchment 1S: EXISTING SITE

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 YR	5.02	0.226	1.14
2 YR	6.33	0.287	1.46
5 YR	8.68	0.400	2.03
10 YR	10.72	0.501	2.54
25 YR	12.77	0.604	3.06
50 YR	14.49	0.691	3.50
100 YR	**16.88**	**0.814**	**4.13**

LEGEND

- EXISTING GRADE (2' CONTOUR)
- EXISTING GRADE (10' CONTOUR)
- EXISTING TREELINE/VEGETATION
- EXISTING SHORELINE
- PROPERTY LINE (SUBJECT PROPERTY)
- PROPERTY LINE/RIGHT-OF-WAY
- ST — EXISTING STORM SEWER
- ST — PROPOSED STORM SEWER
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED SEDIMENT TRAP
- 1.0% — PROPOSED SLOPE
- IMPERVIOUS/PERVIOUS AREA TO DISCHARGE TO LAKE MENDOTA VIA ROOF DRAINS AND OVERLAND FLOW
- IMPERVIOUS AREA TO STORM SEWER
- IMPERVIOUS AREA TO STORM SEWER



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SCALE: 1" = 40'

N 45° PROJECT NORTH

PROJECT NO.	3826	DRAWN BY:	KM/KP
DRAWN:	07/29/09	CHECKED BY:	BP/MH
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ENGINEER

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SITE

EDGEWATER HOTEL REDEVELOPMENT

STORMWATER MANAGEMENT CALCULATIONS
PROPOSED CONDITIONS

FIGURE
2 OF 2

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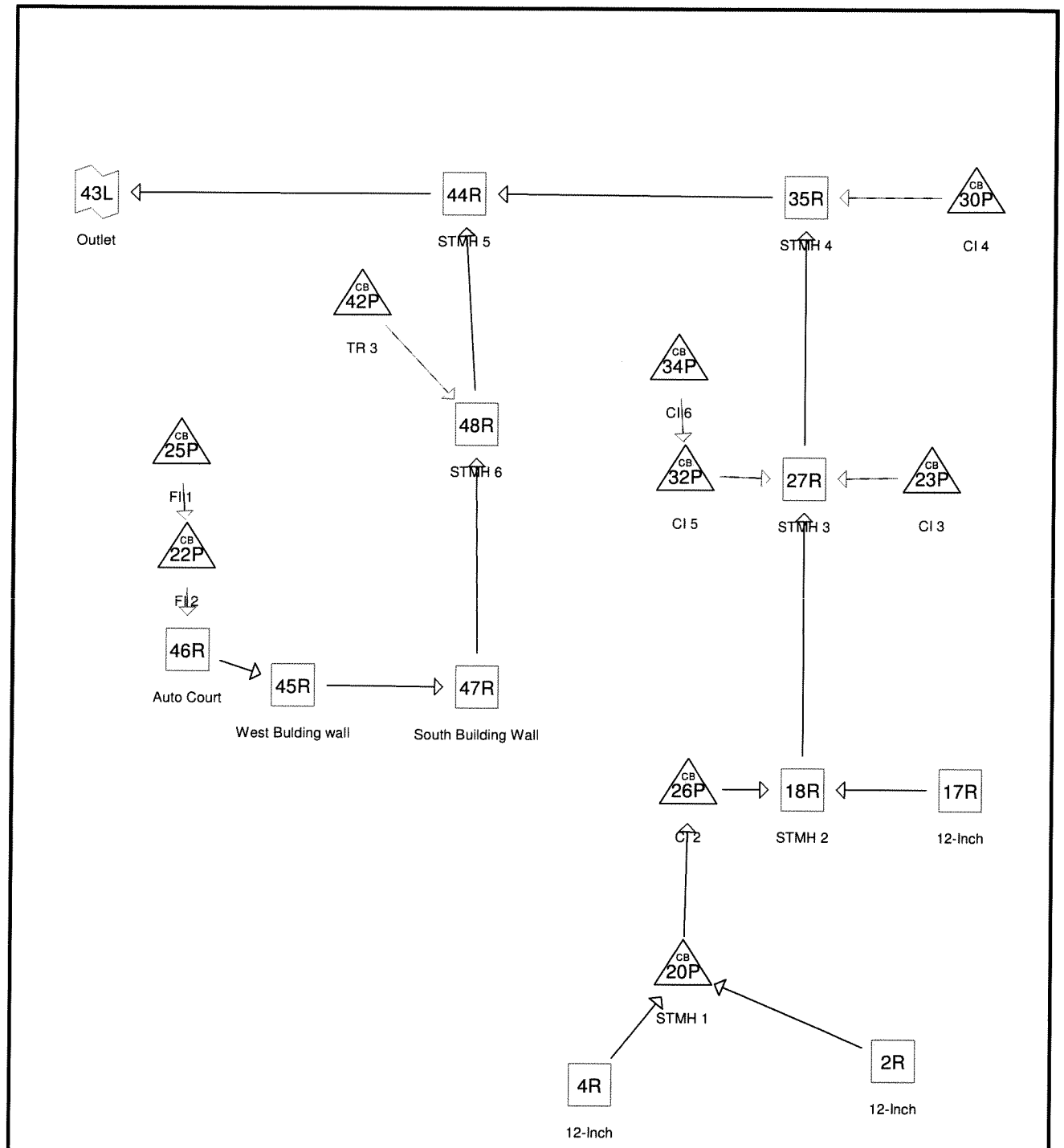


Subcat Reach Pond Link

Drainage Diagram for Edgewater 091027

Prepared by {enter your company name here}, Printed 10/28/2009

Summary for Reach 2R: 12-Inch

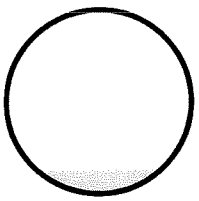
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.103 ac,100.00% Impervious, Inflow Depth > 2.67" for 2 YR event
Inflow = 0.42 cfs @ 11.97 hrs, Volume= 0.023 af
Outflow = 0.42 cfs @ 11.97 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.04 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.07 fps, Avg. Travel Time= 0.3 min

Peak Storage= 3 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.13'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 11.69 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 43.0' Slope= 0.1433 '/'
Inlet Invert= 68.16', Outlet Invert= 62.00'



Summary for Reach 4R: 12-Inch

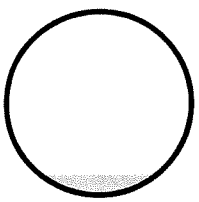
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.040 ac,100.00% Impervious, Inflow Depth > 2.67" for 2 YR event
Inflow = 0.17 cfs @ 11.97 hrs, Volume= 0.009 af
Outflow = 0.17 cfs @ 11.97 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.40 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.01 fps, Avg. Travel Time= 0.1 min

Peak Storage= 0 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.11'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.18 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 5.0' Slope= 0.0400 '/'
Inlet Invert= 65.90', Outlet Invert= 65.70'



Summary for Reach 17R: 12-Inch

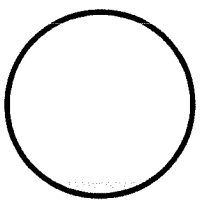
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 2.67" for 2 YR event
Inflow = 0.12 cfs @ 11.97 hrs, Volume= 0.007 af
Outflow = 0.12 cfs @ 11.97 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.42 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 0.4 min

Peak Storage= 1 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 10.24 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 30.0' Slope= 0.1100 '/'
Inlet Invert= 64.60', Outlet Invert= 61.30'



Summary for Reach 18R: STMH 2

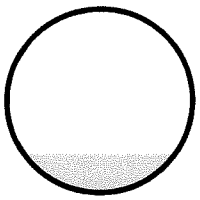
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 17R OUTLET depth by 0.24' @ 11.98 hrs
[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 0.12'

Inflow Area = 0.220 ac,100.00% Impervious, Inflow Depth > 2.67" for 2 YR event
Inflow = 0.90 cfs @ 11.97 hrs, Volume= 0.049 af
Outflow = 0.90 cfs @ 11.99 hrs, Volume= 0.049 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.28 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 0.95 fps, Avg. Travel Time= 2.1 min

Peak Storage= 33 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.50', Capacity at Bank-Full= 9.10 cfs

18.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 120.0' Slope= 0.0100 '/'
Inlet Invert= 61.30', Outlet Invert= 60.10'



Summary for Reach 27R: STMH 3

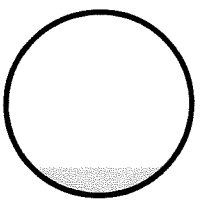
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 18R outlet invert by 0.31' @ 11.98 hrs
[79] Warning: Submerged Pond 23P Secondary device # 2 OUTLET by 0.31'
[79] Warning: Submerged Pond 32P Secondary device # 2 OUTLET by 0.31'

Inflow Area = 0.357 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event
Inflow = 1.45 cfs @ 11.98 hrs, Volume= 0.079 af
Outflow = 1.44 cfs @ 11.98 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.66 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.36 fps, Avg. Travel Time= 0.2 min

Peak Storage= 6 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.31'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 27.73 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 20.0' Slope= 0.0200 '/'
Inlet Invert= 60.10', Outlet Invert= 59.70'



Summary for Reach 35R: STMH 4

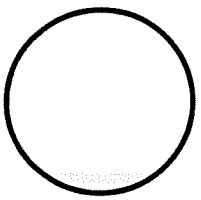
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 27R outlet invert by 0.22' @ 11.98 hrs
[79] Warning: Submerged Pond 30P Secondary device # 2 OUTLET by 0.22'

Inflow Area = 0.403 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event
Inflow = 1.63 cfs @ 11.98 hrs, Volume= 0.089 af
Outflow = 1.63 cfs @ 11.98 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.68 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.58 fps, Avg. Travel Time= 0.2 min

Peak Storage= 6 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.22'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 64.03 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 30.0' Slope= 0.1067 '/'
Inlet Invert= 59.70', Outlet Invert= 56.50'



Summary for Reach 44R: STMH 5

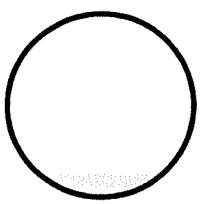
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 48R outlet invert by 0.25' @ 11.99 hrs

Inflow Area =	0.701 ac,100.00% Impervious,	Inflow Depth >	2.66"	for 2 YR event
Inflow =	2.78 cfs @ 11.99 hrs,	Volume=	0.156 af	
Outflow =	2.77 cfs @ 12.00 hrs,	Volume=	0.155 af,	Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 12.22 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 3.63 fps, Avg. Travel Time= 1.2 min

Peak Storage= 61 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.25'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 82.92 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 270.0' Slope= 0.1789 '/'
Inlet Invert= 52.90', Outlet Invert= 4.60'



Summary for Reach 45R: West Bulding wall

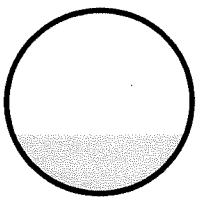
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 46R outlet invert by 0.32' @ 11.98 hrs

Inflow Area =	0.206 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.84 cfs @ 11.97 hrs,	Volume=	0.046 af	
Outflow =	0.84 cfs @ 11.98 hrs,	Volume=	0.046 af,	Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.79 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.11 fps, Avg. Travel Time= 1.1 min

Peak Storage= 17 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.68 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 75.0' Slope= 0.0107 '/'
Inlet Invert= 56.00', Outlet Invert= 55.20'



Summary for Reach 46R: Auto Court

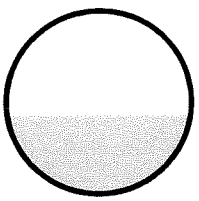
[52] Hint: Inlet/Outlet conditions not evaluated
[81] Warning: Exceeded Pond 22P by 0.01' @ 2.16 hrs

Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 2.67" for 2 YR event
Inflow = 0.84 cfs @ 11.97 hrs, Volume= 0.046 af
Outflow = 0.84 cfs @ 11.97 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.75 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.11 fps, Avg. Travel Time= 0.8 min

Peak Storage= 11 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 0.83', Capacity at Bank-Full= 2.19 cfs

10.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 56.50', Outlet Invert= 56.00'



Summary for Reach 47R: South Building Wall

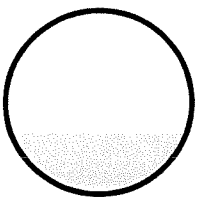
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 45R OUTLET depth by 0.03' @ 12.08 hrs

Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event
Inflow = 0.84 cfs @ 11.98 hrs, Volume= 0.046 af
Outflow = 0.83 cfs @ 12.01 hrs, Volume= 0.046 af, Atten= 1%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.70 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.08 fps, Avg. Travel Time= 2.9 min

Peak Storage= 43 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.56 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 190.0' Slope= 0.0100 '/'
Inlet Invert= 55.20', Outlet Invert= 53.30'



Summary for Reach 48R: STMH 6

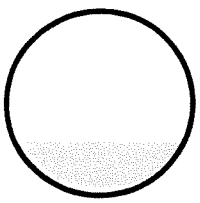
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 47R OUTLET depth by 0.04' @ 12.06 hrs
[79] Warning: Submerged Pond 42P Secondary device # 2 OUTLET by 0.36'

Inflow Area = 0.298 ac,100.00% Impervious, Inflow Depth > 2.66" for 2 YR event
Inflow = 1.17 cfs @ 11.99 hrs, Volume= 0.066 af
Outflow = 1.17 cfs @ 12.00 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.99 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.17 fps, Avg. Travel Time= 0.6 min

Peak Storage= 12 cf @ 12.00 hrs, Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 1.25', Capacity at Bank-Full= 6.46 cfs

15.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 40.0' Slope= 0.0100 '/'
Inlet Invert= 53.30', Outlet Invert= 52.90'



Summary for Pond 20P: STMH 1

[57] Hint: Peaked at 62.38' (Flood elevation advised)
[62] Warning: Exceeded Reach 2R OUTLET depth by 0.25' @ 11.97 hrs

Inflow Area =	0.144 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.59 cfs @	11.97 hrs, Volume=	0.032 af	
Outflow =	0.59 cfs @	11.97 hrs, Volume=	0.032 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.59 cfs @	11.97 hrs, Volume=	0.032 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 62.38' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**15.0" x 50.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 61.50' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.59 cfs @ 11.97 hrs HW=62.38' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.59 cfs @ 2.77 fps)

Summary for Pond 22P: FI 2

[57] Hint: Peaked at 57.00' (Flood elevation advised)
[79] Warning: Submerged Pond 25P Secondary device # 2 INLET by 0.25'

Inflow Area =	0.206 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.84 cfs @	11.97 hrs, Volume=	0.046 af	
Outflow =	0.84 cfs @	11.97 hrs, Volume=	0.046 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.84 cfs @	11.97 hrs, Volume=	0.046 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 57.00' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	56.50'	**12.0" x 30.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 56.20' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.50' (Free Discharge)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.84 cfs @ 11.97 hrs HW=57.00' (Free Discharge)
↑**2=Culvert** (Barrel Controls 0.84 cfs @ 3.15 fps)

Summary for Pond 23P: CI 3

[57] Hint: Peaked at 61.29' (Flood elevation advised)

Inflow Area =	0.083 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.34 cfs @ 11.97 hrs,	Volume=	0.018 af	
Outflow =	0.34 cfs @ 11.97 hrs,	Volume=	0.018 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.34 cfs @ 11.97 hrs,	Volume=	0.018 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 61.29' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	61.00'	**12.0" x 10.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.10' S= 0.0900 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.00' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.34 cfs @ 11.97 hrs HW=61.29' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.34 cfs @ 1.82 fps)

Summary for Pond 25P: FI 1

[57] Hint: Peaked at 57.11' (Flood elevation advised)

Inflow Area =	0.103 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.42 cfs @ 11.97 hrs,	Volume=	0.023 af	
Outflow =	0.42 cfs @ 11.97 hrs,	Volume=	0.023 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.42 cfs @ 11.97 hrs,	Volume=	0.023 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 57.11' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	56.75'	**10.0" x 25.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 56.50' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.75' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.42 cfs @ 11.97 hrs HW=57.11' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 0.42 cfs @ 2.70 fps)

Summary for Pond 26P: CI 2

[57] Hint: Peaked at 62.01' (Flood elevation advised)
[79] Warning: Submerged Pond 20P Primary device # 1 OUTLET by 0.50'

Inflow Area =	0.190 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.78 cfs @ 11.97 hrs,	Volume=	0.042 af	
Outflow =	0.78 cfs @ 11.97 hrs,	Volume=	0.042 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.78 cfs @ 11.97 hrs,	Volume=	0.042 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 62.01' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.50'	**12.0" x 20.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 61.30' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.78 cfs @ 11.97 hrs HW=62.00' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.78 cfs @ 2.85 fps)

Summary for Pond 30P: CI 4

[57] Hint: Peaked at 60.29' (Flood elevation advised)

Inflow Area =	0.046 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.19 cfs @ 11.97 hrs,	Volume=	0.010 af	
Outflow =	0.19 cfs @ 11.97 hrs,	Volume=	0.010 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.19 cfs @ 11.97 hrs,	Volume=	0.010 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 60.29' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	60.10'	**15.0" x 20.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 59.70' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.10' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.18 cfs @ 11.97 hrs HW=60.29' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.18 cfs @ 1.50 fps)

Summary for Pond 32P: CI 5

[57] Hint: Peaked at 60.81' (Flood elevation advised)
[79] Warning: Submerged Pond 34P Secondary device # 2 OUTLET by 0.21'

Inflow Area =	0.054 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.22 cfs @ 11.97 hrs,	Volume=	0.012 af	
Outflow =	0.22 cfs @ 11.97 hrs,	Volume=	0.012 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.22 cfs @ 11.97 hrs,	Volume=	0.012 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 60.81' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	60.60'	**15.0" x 25.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.10' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.60' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.22 cfs @ 11.97 hrs HW=60.81' (Free Discharge)
2=Culvert (Inlet Controls 0.22 cfs @ 1.57 fps)

Summary for Pond 34P: CI 6

[57] Hint: Peaked at 61.29' (Flood elevation advised)

Inflow Area =	0.010 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event
Inflow =	0.04 cfs @ 11.97 hrs,	Volume=	0.002 af	
Outflow =	0.04 cfs @ 11.97 hrs,	Volume=	0.002 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.04 cfs @ 11.97 hrs,	Volume=	0.002 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 61.29' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	61.20'	**12.0" x 30.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.60' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.20' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.04 cfs @ 11.97 hrs HW=61.29' (Free Discharge)
2=Culvert (Inlet Controls 0.04 cfs @ 1.04 fps)

Summary for Pond 42P: TR 3

[57] Hint: Peaked at 54.80' (Flood elevation advised)

Inflow Area =	0.092 ac,100.00% Impervious,	Inflow Depth >	2.67"	for 2 YR event	
Inflow =	0.38 cfs @	11.97 hrs, Volume=	0.020 af		
Outflow =	0.38 cfs @	11.97 hrs, Volume=	0.020 af,	Atten= 0%,	Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af		
Secondary =	0.38 cfs @	11.97 hrs, Volume=	0.020 af		

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 54.80' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	54.50'	**12.0" x 110.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 53.30' S= 0.0109 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.50' (Free Discharge)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.37 cfs @ 11.97 hrs HW=54.80' (Free Discharge)
↑**2=Culvert** (Inlet Controls 0.37 cfs @ 1.87 fps)

Summary for Link 43L: Outlet

Inflow Area =	0.701 ac,100.00% Impervious,	Inflow Depth >	2.66"	for 2 YR event	
Inflow =	2.77 cfs @	12.00 hrs, Volume=	0.155 af		
Primary =	2.77 cfs @	12.00 hrs, Volume=	0.155 af,	Atten= 0%,	Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: 12-Inch

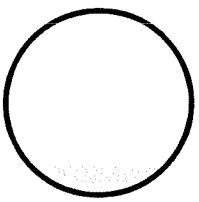
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.103 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 0.62 cfs @ 11.97 hrs, Volume= 0.034 af
Outflow = 0.62 cfs @ 11.97 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.88 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.31 fps, Avg. Travel Time= 0.3 min

Peak Storage= 3 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.16'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 11.69 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 43.0' Slope= 0.1433 '/'
Inlet Invert= 68.16', Outlet Invert= 62.00'



Summary for Reach 4R: 12-Inch

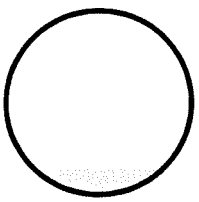
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.040 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 0.24 cfs @ 11.97 hrs, Volume= 0.013 af
Outflow = 0.24 cfs @ 11.97 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.81 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.12 fps, Avg. Travel Time= 0.1 min

Peak Storage= 0 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.13'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.18 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 5.0' Slope= 0.0400 '/'
Inlet Invert= 65.90', Outlet Invert= 65.70'



Summary for Reach 17R: 12-Inch

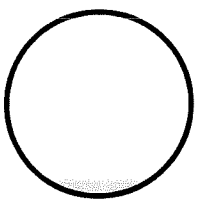
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 0.18 cfs @ 11.97 hrs, Volume= 0.010 af
Outflow = 0.18 cfs @ 11.97 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.95 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.48 fps, Avg. Travel Time= 0.3 min

Peak Storage= 1 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.09'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 10.24 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 30.0' Slope= 0.1100 '/'
Inlet Invert= 64.60', Outlet Invert= 61.30'



Summary for Reach 18R: STMH 2

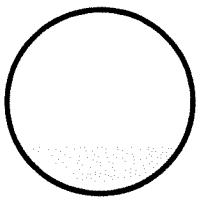
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 17R OUTLET depth by 0.29' @ 11.98 hrs
[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 0.18'

Inflow Area = 0.220 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 1.31 cfs @ 11.97 hrs, Volume= 0.073 af
Outflow = 1.31 cfs @ 11.98 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.66 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.07 fps, Avg. Travel Time= 1.9 min

Peak Storage= 43 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.38'
Bank-Full Depth= 1.50', Capacity at Bank-Full= 9.10 cfs

18.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 120.0' Slope= 0.0100 '/'
Inlet Invert= 61.30', Outlet Invert= 60.10'



Summary for Reach 27R: STMH 3

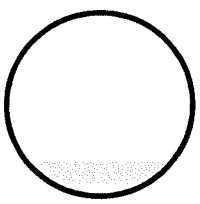
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 18R outlet invert by 0.37' @ 11.98 hrs
[79] Warning: Submerged Pond 23P Secondary device # 2 OUTLET by 0.37'
[79] Warning: Submerged Pond 32P Secondary device # 2 OUTLET by 0.37'

Inflow Area = 0.357 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 2.11 cfs @ 11.98 hrs, Volume= 0.118 af
Outflow = 2.11 cfs @ 11.98 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.21 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.52 fps, Avg. Travel Time= 0.2 min

Peak Storage= 8 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 27.73 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 20.0' Slope= 0.0200 '/'
Inlet Invert= 60.10', Outlet Invert= 59.70'



Summary for Reach 35R: STMH 4

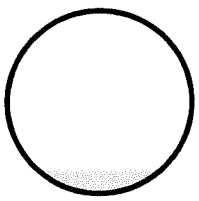
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 27R outlet invert by 0.26' @ 11.98 hrs
[79] Warning: Submerged Pond 30P Secondary device # 2 OUTLET by 0.26'

Inflow Area = 0.403 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 2.38 cfs @ 11.98 hrs, Volume= 0.133 af
Outflow = 2.38 cfs @ 11.98 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.73 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.88 fps, Avg. Travel Time= 0.2 min

Peak Storage= 7 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 64.03 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 30.0' Slope= 0.1067 '/'
Inlet Invert= 59.70', Outlet Invert= 56.50'



Summary for Reach 44R: STMH 5

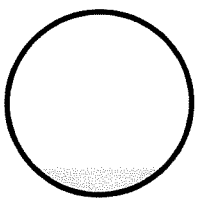
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 48R outlet invert by 0.30' @ 11.99 hrs

Inflow Area =	0.701 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	4.08 cfs @ 11.98 hrs,	Volume=	0.231 af	
Outflow =	4.06 cfs @ 11.99 hrs,	Volume=	0.231 af,	Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 13.68 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 4.04 fps, Avg. Travel Time= 1.1 min

Peak Storage= 80 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.30'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 82.92 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 270.0' Slope= 0.1789 '/'
Inlet Invert= 52.90', Outlet Invert= 4.60'



Summary for Reach 45R: West Bulding wall

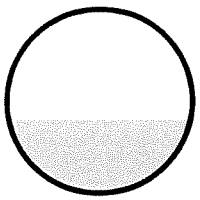
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 46R outlet invert by 0.40' @ 11.98 hrs

Inflow Area =	0.206 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	1.22 cfs @ 11.97 hrs,	Volume=	0.068 af	
Outflow =	1.22 cfs @ 11.98 hrs,	Volume=	0.068 af,	Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.21 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 1.0 min

Peak Storage= 22 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.68 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 75.0' Slope= 0.0107 '/'
Inlet Invert= 56.00', Outlet Invert= 55.20'



Summary for Reach 46R: Auto Court

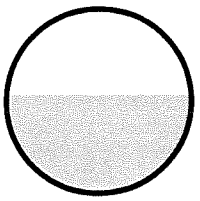
[52] Hint: Inlet/Outlet conditions not evaluated
[81] Warning: Exceeded Pond 22P by 0.01' @ 1.41 hrs

Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 1.23 cfs @ 11.97 hrs, Volume= 0.068 af
Outflow = 1.22 cfs @ 11.97 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.13 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.7 min

Peak Storage= 15 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 0.83', Capacity at Bank-Full= 2.19 cfs

10.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 56.50', Outlet Invert= 56.00'



Summary for Reach 47R: South Building Wall

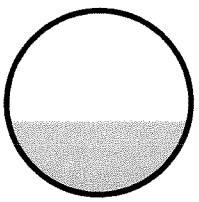
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 45R OUTLET depth by 0.04' @ 12.07 hrs

Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 1.22 cfs @ 11.98 hrs, Volume= 0.068 af
Outflow = 1.21 cfs @ 12.00 hrs, Volume= 0.068 af, Atten= 1%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.10 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.22 fps, Avg. Travel Time= 2.6 min

Peak Storage= 56 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.56 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 190.0' Slope= 0.0100 '/'
Inlet Invert= 55.20', Outlet Invert= 53.30'



Summary for Reach 48R: STMH 6

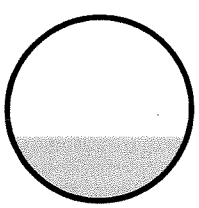
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 47R OUTLET depth by 0.04' @ 12.05 hrs
[79] Warning: Submerged Pond 42P Secondary device # 2 OUTLET by 0.44'

Inflow Area = 0.298 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 1.72 cfs @ 11.99 hrs, Volume= 0.098 af
Outflow = 1.72 cfs @ 11.99 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.45 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.32 fps, Avg. Travel Time= 0.5 min

Peak Storage= 15 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.44'
Bank-Full Depth= 1.25', Capacity at Bank-Full= 6.46 cfs

15.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 40.0' Slope= 0.0100 '/'
Inlet Invert= 53.30', Outlet Invert= 52.90'



Summary for Pond 20P: STMH 1

[57] Hint: Peaked at 62.47' (Flood elevation advised)
[62] Warning: Exceeded Reach 2R OUTLET depth by 0.31' @ 11.97 hrs

Inflow Area =	0.144 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	0.86 cfs @ 11.97 hrs,	Volume=	0.047 af	
Outflow =	0.86 cfs @ 11.97 hrs,	Volume=	0.047 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.86 cfs @ 11.97 hrs,	Volume=	0.047 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 62.47' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**15.0" x 50.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 61.50' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.86 cfs @ 11.97 hrs HW=62.47' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.86 cfs @ 3.05 fps)

Summary for Pond 22P: FI 2

[57] Hint: Peaked at 57.12' (Flood elevation advised)
[79] Warning: Submerged Pond 25P Secondary device # 2 INLET by 0.37'

Inflow Area =	0.206 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	1.23 cfs @ 11.97 hrs,	Volume=	0.068 af	
Outflow =	1.23 cfs @ 11.97 hrs,	Volume=	0.068 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	1.23 cfs @ 11.97 hrs,	Volume=	0.068 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 57.12' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	56.50'	**12.0" x 30.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 56.20' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.50' (Free Discharge)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=1.22 cfs @ 11.97 hrs HW=57.12' (Free Discharge)
↑**2=Culvert** (Barrel Controls 1.22 cfs @ 3.42 fps)

Summary for Pond 23P: CI 3

[57] Hint: Peaked at 61.35' (Flood elevation advised)

Inflow Area =	0.083 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	0.49 cfs @	11.97 hrs, Volume=	0.027 af	
Outflow =	0.49 cfs @	11.97 hrs, Volume=	0.027 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.49 cfs @	11.97 hrs, Volume=	0.027 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 61.35' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	61.00'	**12.0" x 10.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.10' S= 0.0900 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.00' (Free Discharge)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.49 cfs @ 11.97 hrs HW=61.35' (Free Discharge)
↑**2=Culvert** (Inlet Controls 0.49 cfs @ 2.01 fps)

Summary for Pond 25P: FI 1

[57] Hint: Peaked at 57.20' (Flood elevation advised)

Inflow Area =	0.103 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	0.61 cfs @	11.97 hrs, Volume=	0.034 af	
Outflow =	0.61 cfs @	11.97 hrs, Volume=	0.034 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.61 cfs @	11.97 hrs, Volume=	0.034 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 57.20' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	56.75'	**10.0" x 25.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 56.50' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.75' (Free Discharge)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.61 cfs @ 11.97 hrs HW=57.20' (Free Discharge)
↑**2=Culvert** (Barrel Controls 0.61 cfs @ 2.94 fps)

Summary for Pond 26P: CI 2

[57] Hint: Peaked at 62.13' (Flood elevation advised)
[79] Warning: Submerged Pond 20P Primary device # 1 INLET by 0.13'

Inflow Area = 0.190 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 1.13 cfs @ 11.97 hrs, Volume= 0.063 af
Outflow = 1.13 cfs @ 11.97 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.0 min
Primary = 1.13 cfs @ 11.97 hrs, Volume= 0.063 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 62.13' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.50'	**12.0" x 20.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 61.30' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=1.13 cfs @ 11.97 hrs HW=62.13' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.13 cfs @ 3.11 fps)

Summary for Pond 30P: CI 4

[57] Hint: Peaked at 60.34' (Flood elevation advised)

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth > 3.96" for 10 YR event
Inflow = 0.27 cfs @ 11.97 hrs, Volume= 0.015 af
Outflow = 0.27 cfs @ 11.97 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Secondary = 0.27 cfs @ 11.97 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 60.34' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	60.10'	**15.0" x 20.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 59.70' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.10' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.27 cfs @ 11.97 hrs HW=60.34' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.27 cfs @ 1.66 fps)

Summary for Pond 32P: CI 5

[57] Hint: Peaked at 60.86' (Flood elevation advised)
[79] Warning: Submerged Pond 34P Secondary device # 2 OUTLET by 0.26'

Inflow Area =	0.054 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	0.32 cfs @ 11.97 hrs,	Volume=	0.018 af	
Outflow =	0.32 cfs @ 11.97 hrs,	Volume=	0.018 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.32 cfs @ 11.97 hrs,	Volume=	0.018 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 60.86' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	60.60'	**15.0" x 25.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.10' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.60' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.32 cfs @ 11.97 hrs HW=60.86' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.32 cfs @ 1.73 fps)

Summary for Pond 34P: CI 6

[57] Hint: Peaked at 61.32' (Flood elevation advised)

Inflow Area =	0.010 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	0.06 cfs @ 11.97 hrs,	Volume=	0.003 af	
Outflow =	0.06 cfs @ 11.97 hrs,	Volume=	0.003 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.06 cfs @ 11.97 hrs,	Volume=	0.003 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 61.32' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	61.20'	**12.0" x 30.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.60' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.20' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.06 cfs @ 11.97 hrs HW=61.32' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.06 cfs @ 1.17 fps)

Summary for Pond 42P: TR 3

[57] Hint: Peaked at 54.87' (Flood elevation advised)

Inflow Area =	0.092 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	0.55 cfs @ 11.97 hrs,	Volume=	0.030 af	
Outflow =	0.55 cfs @ 11.97 hrs,	Volume=	0.030 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	0.55 cfs @ 11.97 hrs,	Volume=	0.030 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 54.87' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	54.50'	**12.0" x 110.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 53.30' S= 0.0109 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.50' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.54 cfs @ 11.97 hrs HW=54.87' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.54 cfs @ 2.07 fps)

Summary for Link 43L: Outlet

Inflow Area =	0.701 ac,100.00% Impervious,	Inflow Depth >	3.96"	for 10 YR event
Inflow =	4.06 cfs @ 11.99 hrs,	Volume=	0.231 af	
Primary =	4.06 cfs @ 11.99 hrs,	Volume=	0.231 af,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: 12-Inch

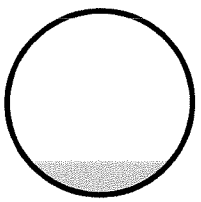
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.103 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event
Inflow = 0.88 cfs @ 11.97 hrs, Volume= 0.050 af
Outflow = 0.88 cfs @ 11.97 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.77 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.56 fps, Avg. Travel Time= 0.3 min

Peak Storage= 4 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.19'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 11.69 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 43.0' Slope= 0.1433 '/'
Inlet Invert= 68.16', Outlet Invert= 62.00'



Summary for Reach 4R: 12-Inch

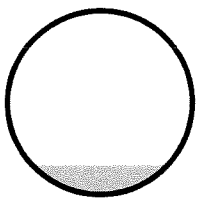
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.040 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event
Inflow = 0.35 cfs @ 11.97 hrs, Volume= 0.019 af
Outflow = 0.35 cfs @ 11.97 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.24 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.1 min

Peak Storage= 0 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.16'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 6.18 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 5.0' Slope= 0.0400 '/'
Inlet Invert= 65.90', Outlet Invert= 65.70'



Summary for Reach 17R: 12-Inch

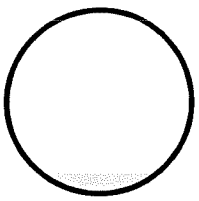
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event
Inflow = 0.26 cfs @ 11.97 hrs, Volume= 0.014 af
Outflow = 0.25 cfs @ 11.97 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.52 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 0.3 min

Peak Storage= 1 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.11'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 10.24 cfs

12.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 30.0' Slope= 0.1100 '/'
Inlet Invert= 64.60', Outlet Invert= 61.30'



Summary for Reach 18R: STMH 2

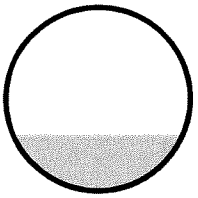
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 17R OUTLET depth by 0.35' @ 11.98 hrs
[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 0.26'

Inflow Area = 0.220 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event
Inflow = 1.88 cfs @ 11.97 hrs, Volume= 0.106 af
Outflow = 1.87 cfs @ 11.98 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.05 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.20 fps, Avg. Travel Time= 1.7 min

Peak Storage= 55 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 1.50', Capacity at Bank-Full= 9.10 cfs

18.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 120.0' Slope= 0.0100 '/'
Inlet Invert= 61.30', Outlet Invert= 60.10'



Summary for Reach 27R: STMH 3

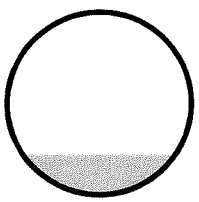
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 18R outlet invert by 0.45' @ 11.98 hrs
[79] Warning: Submerged Pond 23P Secondary device # 2 OUTLET by 0.45'
[79] Warning: Submerged Pond 32P Secondary device # 2 OUTLET by 0.45'

Inflow Area = 0.357 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event
Inflow = 3.03 cfs @ 11.98 hrs, Volume= 0.171 af
Outflow = 3.03 cfs @ 11.98 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.79 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.70 fps, Avg. Travel Time= 0.2 min

Peak Storage= 10 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 27.73 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 20.0' Slope= 0.0200 '/'
Inlet Invert= 60.10', Outlet Invert= 59.70'



Summary for Reach 35R: STMH 4

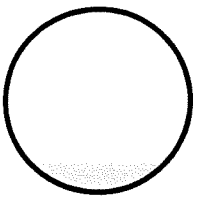
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 27R outlet invert by 0.31' @ 11.98 hrs
[79] Warning: Submerged Pond 30P Secondary device # 2 OUTLET by 0.31'

Inflow Area = 0.403 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event
Inflow = 3.42 cfs @ 11.98 hrs, Volume= 0.193 af
Outflow = 3.42 cfs @ 11.98 hrs, Volume= 0.193 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.83 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 3.19 fps, Avg. Travel Time= 0.2 min

Peak Storage= 9 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.31'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 64.03 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 30.0' Slope= 0.1067 '/'
Inlet Invert= 59.70', Outlet Invert= 56.50'



Summary for Reach 44R: STMH 5

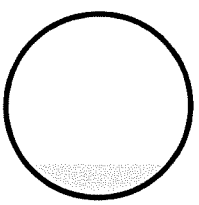
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 48R outlet invert by 0.36' @ 11.99 hrs

Inflow Area =	0.701 ac,100.00% Impervious,	Inflow Depth >	5.75"	for 100 YR event
Inflow =	5.86 cfs @ 11.98 hrs,	Volume=	0.336 af	
Outflow =	5.85 cfs @ 11.99 hrs,	Volume=	0.336 af,	Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 15.24 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 4.49 fps, Avg. Travel Time= 1.0 min

Peak Storage= 104 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 82.92 cfs

24.0" Diameter Pipe, n= 0.015 Concrete sewer w/manholes & inlets
Length= 270.0' Slope= 0.1789 '/'
Inlet Invert= 52.90', Outlet Invert= 4.60'



Summary for Reach 45R: West Bulding wall

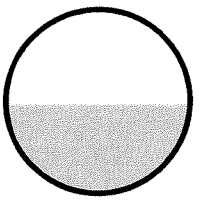
[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 46R outlet invert by 0.49' @ 11.98 hrs

Inflow Area =	0.206 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	1.76 cfs @ 11.97 hrs,	Volume=	0.099 af	
Outflow =	1.75 cfs @ 11.98 hrs,	Volume=	0.099 af,	Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.63 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.40 fps, Avg. Travel Time= 0.9 min

Peak Storage= 28 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.49'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.68 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 75.0' Slope= 0.0107 '/'
Inlet Invert= 56.00', Outlet Invert= 55.20'



Summary for Reach 46R: Auto Court

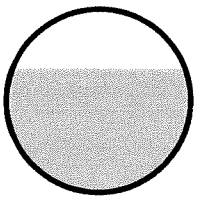
[52] Hint: Inlet/Outlet conditions not evaluated
[81] Warning: Exceeded Pond 22P by 0.01' @ 0.96 hrs

Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event
Inflow = 1.76 cfs @ 11.97 hrs, Volume= 0.099 af
Outflow = 1.76 cfs @ 11.97 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.47 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.40 fps, Avg. Travel Time= 0.6 min

Peak Storage= 20 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 0.83', Capacity at Bank-Full= 2.19 cfs

10.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 56.50', Outlet Invert= 56.00'



Summary for Reach 47R: South Building Wall

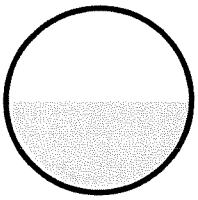
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 45R OUTLET depth by 0.04' @ 12.07 hrs

Inflow Area = 0.206 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event
Inflow = 1.75 cfs @ 11.98 hrs, Volume= 0.099 af
Outflow = 1.74 cfs @ 12.00 hrs, Volume= 0.099 af, Atten= 1%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.51 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 2.3 min

Peak Storage= 73 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.49'
Bank-Full Depth= 1.00', Capacity at Bank-Full= 3.56 cfs

12.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 190.0' Slope= 0.0100 '/'
Inlet Invert= 55.20', Outlet Invert= 53.30'



Summary for Reach 48R: STMH 6

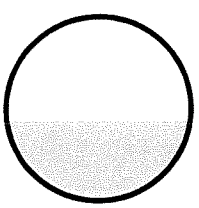
[52] Hint: Inlet/Outlet conditions not evaluated
[62] Warning: Exceeded Reach 47R OUTLET depth by 0.05' @ 12.05 hrs
[79] Warning: Submerged Pond 42P Secondary device # 2 OUTLET by 0.54'

Inflow Area = 0.298 ac,100.00% Impervious, Inflow Depth > 5.75" for 100 YR event
Inflow = 2.47 cfs @ 11.99 hrs, Volume= 0.143 af
Outflow = 2.47 cfs @ 11.99 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.91 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.48 fps, Avg. Travel Time= 0.5 min

Peak Storage= 20 cf @ 11.99 hrs, Average Depth at Peak Storage= 0.54'
Bank-Full Depth= 1.25', Capacity at Bank-Full= 6.46 cfs

15.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 40.0' Slope= 0.0100 '/'
Inlet Invert= 53.30', Outlet Invert= 52.90'



Summary for Pond 20P: STMH 1

[57] Hint: Peaked at 62.57' (Flood elevation advised)
[62] Warning: Exceeded Reach 2R OUTLET depth by 0.38' @ 11.97 hrs

Inflow Area =	0.144 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	1.23 cfs @ 11.97 hrs,	Volume=	0.069 af	
Outflow =	1.23 cfs @ 11.97 hrs,	Volume=	0.069 af,	Atten= 0%, Lag= 0.0 min
Primary =	1.23 cfs @ 11.97 hrs,	Volume=	0.069 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 62.57' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**15.0" x 50.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 61.50' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=1.23 cfs @ 11.97 hrs HW=62.57' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.23 cfs @ 3.32 fps)

Summary for Pond 22P: FI 2

[57] Hint: Peaked at 57.28' (Flood elevation advised)
[79] Warning: Submerged Pond 25P Secondary device # 2 INLET by 0.53'

Inflow Area =	0.206 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	1.76 cfs @ 11.97 hrs,	Volume=	0.099 af	
Outflow =	1.76 cfs @ 11.97 hrs,	Volume=	0.099 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs,	Volume=	0.000 af	
Secondary =	1.76 cfs @ 11.97 hrs,	Volume=	0.099 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 57.28' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	56.50'	**12.0" x 30.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 56.20' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.50' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=1.76 cfs @ 11.97 hrs HW=57.28' (Free Discharge)
↑—**2=Culvert** (Barrel Controls 1.76 cfs @ 3.69 fps)

Summary for Pond 23P: CI 3

[57] Hint: Peaked at 61.43' (Flood elevation advised)

Inflow Area =	0.083 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	0.71 cfs @	11.97 hrs, Volume=	0.040 af	
Outflow =	0.71 cfs @	11.97 hrs, Volume=	0.040 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.71 cfs @	11.97 hrs, Volume=	0.040 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 61.43' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	61.00'	**12.0" x 10.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.10' S= 0.0900 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.00' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.70 cfs @ 11.97 hrs HW=61.42' (Free Discharge)
2=Culvert (Inlet Controls 0.70 cfs @ 2.22 fps)

Summary for Pond 25P: FI 1

[57] Hint: Peaked at 57.31' (Flood elevation advised)

Inflow Area =	0.103 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	0.88 cfs @	11.97 hrs, Volume=	0.049 af	
Outflow =	0.88 cfs @	11.97 hrs, Volume=	0.049 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.88 cfs @	11.97 hrs, Volume=	0.049 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 57.31' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	56.75'	**10.0" x 25.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 56.50' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.75' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.88 cfs @ 11.97 hrs HW=57.31' (Free Discharge)
2=Culvert (Barrel Controls 0.88 cfs @ 3.18 fps)

Summary for Pond 26P: CI 2

[57] Hint: Peaked at 62.29' (Flood elevation advised)
[79] Warning: Submerged Pond 20P Primary device # 1 INLET by 0.29'

Inflow Area = 0.190 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event
Inflow = 1.63 cfs @ 11.97 hrs, Volume= 0.091 af
Outflow = 1.63 cfs @ 11.97 hrs, Volume= 0.091 af, Atten= 0%, Lag= 0.0 min
Primary = 1.63 cfs @ 11.97 hrs, Volume= 0.091 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 62.29' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.50'	**12.0" x 20.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 61.30' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=1.62 cfs @ 11.97 hrs HW=62.28' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.62 cfs @ 3.38 fps)

Summary for Pond 30P: CI 4

[57] Hint: Peaked at 60.39' (Flood elevation advised)

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth > 5.76" for 100 YR event
Inflow = 0.39 cfs @ 11.97 hrs, Volume= 0.022 af
Outflow = 0.39 cfs @ 11.97 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Secondary = 0.39 cfs @ 11.97 hrs, Volume= 0.022 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 60.39' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	60.10'	**15.0" x 20.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 59.70' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.10' (Free Discharge)
↑—**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.39 cfs @ 11.97 hrs HW=60.39' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.39 cfs @ 1.83 fps)

Summary for Pond 32P: CI 5

[57] Hint: Peaked at 60.91' (Flood elevation advised)
[79] Warning: Submerged Pond 34P Secondary device # 2 OUTLET by 0.31'

Inflow Area =	0.054 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	0.46 cfs @	11.97 hrs, Volume=	0.026 af	
Outflow =	0.46 cfs @	11.97 hrs, Volume=	0.026 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.46 cfs @	11.97 hrs, Volume=	0.026 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 60.91' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	60.60'	**15.0" x 25.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.10' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=60.60' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.46 cfs @ 11.97 hrs HW=60.91' (Free Discharge)
2=Culvert (Inlet Controls 0.46 cfs @ 1.91 fps)

Summary for Pond 34P: CI 6

[57] Hint: Peaked at 61.34' (Flood elevation advised)

Inflow Area =	0.010 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	0.09 cfs @	11.97 hrs, Volume=	0.005 af	
Outflow =	0.09 cfs @	11.97 hrs, Volume=	0.005 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.09 cfs @	11.97 hrs, Volume=	0.005 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 61.34' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	65.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	61.20'	**12.0" x 30.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 60.60' S= 0.0200 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=61.20' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.09 cfs @ 11.97 hrs HW=61.34' (Free Discharge)
2=Culvert (Inlet Controls 0.09 cfs @ 1.27 fps)

Summary for Pond 42P: TR 3

[57] Hint: Peaked at 54.95' (Flood elevation advised)

Inflow Area =	0.092 ac,100.00% Impervious,	Inflow Depth >	5.76"	for 100 YR event
Inflow =	0.79 cfs @	11.97 hrs, Volume=	0.044 af	
Outflow =	0.79 cfs @	11.97 hrs, Volume=	0.044 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Secondary =	0.79 cfs @	11.97 hrs, Volume=	0.044 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 54.95' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	54.50'	**12.0" x 110.0' long Culvert** CPP, square edge headwall, Ke= 0.500 Outlet Invert= 53.30' S= 0.0109 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.50' (Free Discharge)
└**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.78 cfs @ 11.97 hrs HW=54.95' (Free Discharge)
└**2=Culvert** (Inlet Controls 0.78 cfs @ 2.28 fps)

Summary for Link 43L: Outlet

Inflow Area =	0.701 ac,100.00% Impervious,	Inflow Depth >	5.75"	for 100 YR event
Inflow =	5.85 cfs @	11.99 hrs, Volume=	0.336 af	
Primary =	5.85 cfs @	11.99 hrs, Volume=	0.336 af,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Events for Subcatchment 1S: Non-storm sewer areas

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2 yr	6.35	0.312	2.21
10 yr	9.53	0.481	3.39
100 yr	**13.88**	**0.713**	**5.03**

Stormceptor®

Stormceptor Design Summary

PCSWMM for Stormceptor

Project Information

Date	10/27/2009
Project Name	Edgewater
Project Number	3826
Location	Madison WI

Designer Information

Company	BT Squared
Contact	Besty Powers

Notes

Private Drive

Drainage Area

Total Area (ac)	0.55
Imperviousness (%)	100

The Stormceptor System model STC 900 achieves the water quality objective removing 86% TSS for a NJDEP (clay, silt, sand) particle size distribution.

Rainfall

Name	MADISON DANE COUNTY AP
State	WI
ID	4961
Years of Records	1948 to 2005
Latitude	43°8'26"N
Longitude	89°20'43"W

Water Quality Objective

TSS Removal (%)	80

Upstream Storage

Storage (ac-ft)	Discharge (cfs)
0	0

Stormceptor Sizing Summary

Stormceptor Model	TSS Removal %
STC 450i	79
STC 900	**86**
STC 1200	86
STC 1800	86
STC 2400	89
STC 3600	90
STC 4800	92
STC 6000	93
STC 7200	94
STC 11000	96
STC 13000	96
STC 16000	97

Rinker MATERIALS™

Stormceptor®

Particle Size Distribution

Removing silt particles from runoff ensures that the majority of the pollutants, such as hydrocarbons and heavy metals that adhere to fine particles, are not discharged into our natural water courses. The table below lists the particle size distribution used to define the annual TSS removal.

NJDEP (clay, silt, sand)

Particle Size µm	Distribution %	Specific Gravity	Settling Velocity ft/s		Particle Size µm	Distribution %	Specific Gravity	Settling Velocity ft/s
1	5	2.65	0.0012					
4	15	2.65	0.0012					
29	25	2.65	0.0025					
75	15	2.65	0.0133					
175	30	2.65	0.0619					
375	5	2.65	0.1953					
750	5	2.65	0.4266					

Stormceptor Design Notes

- Stormceptor performance estimates are based on simulations using PCSWMM for Stormceptor.
- Design estimates listed are only representative of specific project requirements based on total suspended solids (TSS) removal.
- Only the STC 450i is adaptable to function with a catch basin inlet and/or inline pipes.
- Only the Stormceptor models STC 450i to STC 7200 may accommodate multiple inlet pipes.
- Inlet and outlet invert elevation differences are as follows:

Inlet and Outlet Pipe Invert Elevations Differences

Inlet Pipe Configuration	STC 450i	STC 900 to STC 7200	STC 11000 to STC 16000
Single inlet pipe	3 in.	1 in.	3 in.
Multiple inlet pipes	3 in.	3 in.	Only one inlet pipe.

- Design estimates are based on stable site conditions only, after construction is completed.
- Design estimates assume that the storm drain is not submerged during zero flows. For submerged applications, please contact your local Stormceptor representative.
- Design estimates may be modified for specific spills controls. Please contact your local Stormceptor representative for further assistance.
- For pricing inquiries or assistance, please contact Rinker Materials 1 (800) 909-7763 www.rinkerstormceptor.com

Rinker MATERIALS™

Stormceptor®

Stormceptor Design Summary

PCSWMM for Stormceptor

Project Information

Date	10/27/2009
Project Name	Edgewater
Project Number	3826
Location	Madison WI

Designer Information

Company	BT Squared
Contact	Besty Powers

Notes

Auto Court and Load Dock Only

Drainage Area

Total Area (ac)	0.3
Imperviousness (%)	100

The Stormceptor System model STC 450i achieves the water quality objective removing 84% TSS for a NJDEP (clay, silt, sand) particle size distribution.

Rainfall

Name	MADISON DANE COUNTY AP
State	WI
ID	4961
Years of Records	1948 to 2005
Latitude	43°8'26"N
Longitude	89°20'43"W

Water Quality Objective

TSS Removal (%)	80

Upstream Storage

Storage (ac-ft)	Discharge (cfs)
0	0

Stormceptor Sizing Summary

Stormceptor Model	TSS Removal %
STC 450i	**84**
STC 900	90
STC 1200	90
STC 1800	91
STC 2400	93
STC 3600	94
STC 4800	95
STC 6000	95
STC 7200	96
STC 11000	97
STC 13000	98
STC 16000	98

Rinker MATERIALS™

Stormceptor®

Particle Size Distribution

Removing silt particles from runoff ensures that the majority of the pollutants, such as hydrocarbons and heavy metals that adhere to fine particles, are not discharged into our natural water courses. The table below lists the particle size distribution used to define the annual TSS removal.

NJDEP (clay, silt, sand)

Particle Size µm	Distribution %	Specific Gravity	Settling Velocity ft/s		Particle Size µm	Distribution %	Specific Gravity	Settling Velocity ft/s
1	5	2.65	0.0012					
4	15	2.65	0.0012					
29	25	2.65	0.0025					
75	15	2.65	0.0133					
175	30	2.65	0.0619					
375	5	2.65	0.1953					
750	5	2.65	0.4266					

Stormceptor Design Notes

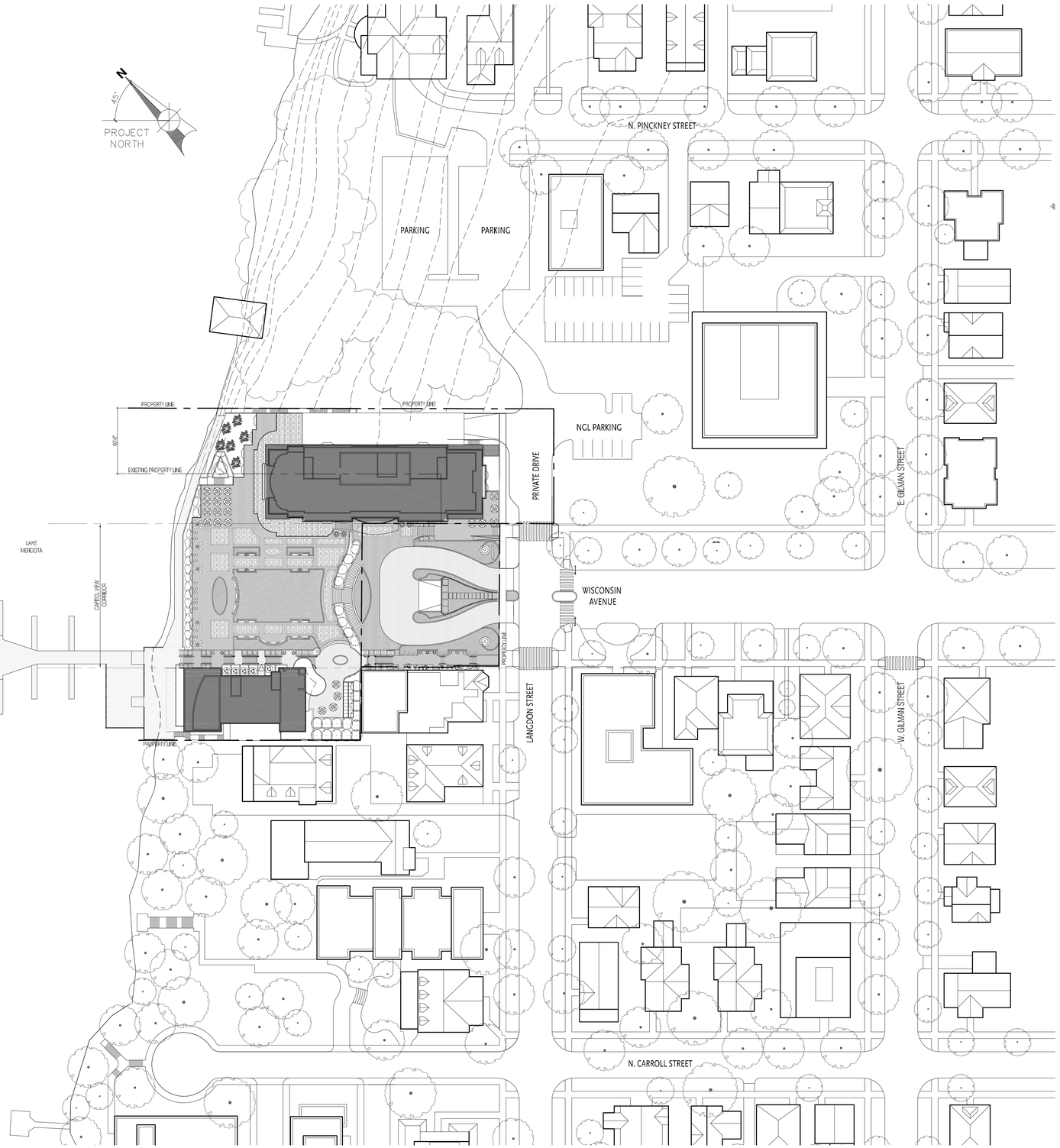
- Stormceptor performance estimates are based on simulations using PCSWMM for Stormceptor.
- Design estimates listed are only representative of specific project requirements based on total suspended solids (TSS) removal.
- Only the STC 450i is adaptable to function with a catch basin inlet and/or inline pipes.
- Only the Stormceptor models STC 450i to STC 7200 may accommodate multiple inlet pipes.
- Inlet and outlet invert elevation differences are as follows:

Inlet and Outlet Pipe Invert Elevations Differences

Inlet Pipe Configuration	STC 450i	STC 900 to STC 7200	STC 11000 to STC 16000
Single inlet pipe	3 in.	1 in.	3 in.
Multiple inlet pipes	3 in.	3 in.	Only one inlet pipe.

- Design estimates are based on stable site conditions only, after construction is completed.
- Design estimates assume that the storm drain is not submerged during zero flows. For submerged applications, please contact your local Stormceptor representative.
- Design estimates may be modified for specific spills controls. Please contact your local Stormceptor representative for further assistance.
- For pricing inquiries or assistance, please contact Rinker Materials 1 (800) 909-7763 www.rinkerstormceptor.com

Rinker MATERIALS™



The Edgewater

666 Wisconsin Avenue
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CIVIL ENGINEER

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F. 608.224.2839

DRAWING LIST:

ARCHITECTURAL

CIVIL

OCTOBER 28, 2009

PREPARED BY:
ELKUS MANFREDI ARCHITECTS

THE EDGEWATER HOTEL

MADISON, WISCONSIN
10.28.09

1940's BUILDING

FLOOR	GUEST ROOM AREA	ROOM KEYS	CIRCULATION AREA	FUNCTION	RESTAURANT/BAR	SPA / HEALTH	FITNESS CENTER/ POOL	OFFICE	BACK OF HOUSE/ MECHANICAL	PARKING AREA	CARS	TOTAL FLOOR AREA (GROSS)
DOCK LEVEL			850 SF		920 SF							1,770 SF
LOWER LEVEL 6			325 SF		2,975 SF							3,300 SF
LOWER LEVEL 5			730 SF									730 SF
LOWER LEVEL 4			850 SF					4,250 SF	1,400 SF			6,500 SF
LOWER LEVEL 3			1,150 SF			3,300 SF	5,000 SF		300 SF			9,750 SF
LOWER LEVEL 2			3,750 SF			2,100 SF			150 SF			6,000 SF
LOWER LEVEL 1	4,700 SF	6	1,100 SF									5,800 SF
LEVEL | 1	4,700 SF	6	1,100 SF									5,800 SF
2	4,700 SF	6	1,100 SF									5,800 SF
3	4,700 SF	6	1,100 SF									5,800 SF
4	4,700 SF	6	1,100 SF									5,800 SF
5 (PREVIOUSLY ROOF)			938 SF	1,952 SF					725 SF			3,615 SF
TOTAL AREA	**23,500 SF**	**30 KEYS**	**14,093 SF**	**1,952 SF**	**3,895 SF**	**5,400 SF**	**5,000 SF**	**4,250 SF**	**2,575 SF**	**- SF**	**0 CARS**	**60,665 SF**

NOTE: THE 1940'S BUILDING PLANS ARE BASED ON DRAWINGS BY LAURENCE MONBERG DATED JULY 1941; FIELD CONDITIONS HAVE NOT BEEN VERIFIED.

1970's BUILDING

FLOOR	GUEST ROOM AREA	ROOM KEYS	CIRCULATION AREA	FUNCTION	RESTAURANT/BAR	SPA / HEALTH	FITNESS CENTER/ POOL	OFFICE	BACK OF HOUSE/ MECHANICAL	PARKING AREA	CARS	TOTAL FLOOR AREA (GROSS)
LOWER LEVEL 6	4,536 SF	9	1,095 SF							11,502 SF	25	17,133 SF
LOWER LEVEL 5	4,536 SF	9	1,084 SF							19,203 SF	43	24,823 SF
LOWER LEVEL 4	4,536 SF	9	1,121 SF							19,163 SF	44	24,820 SF
LOWER LEVEL 3	4,536 SF	9	1,320 SF						1,955 SF	17,294 SF	41	25,105 SF
TOTAL AREA	**18,144 SF**	**36 KEYS**	**4,620 SF**	**- SF**	**- SF**	**- SF**	**- SF**	**- SF**	**1,955 SF**	**67,162 SF**	**153 CARS**	**91,881 SF**

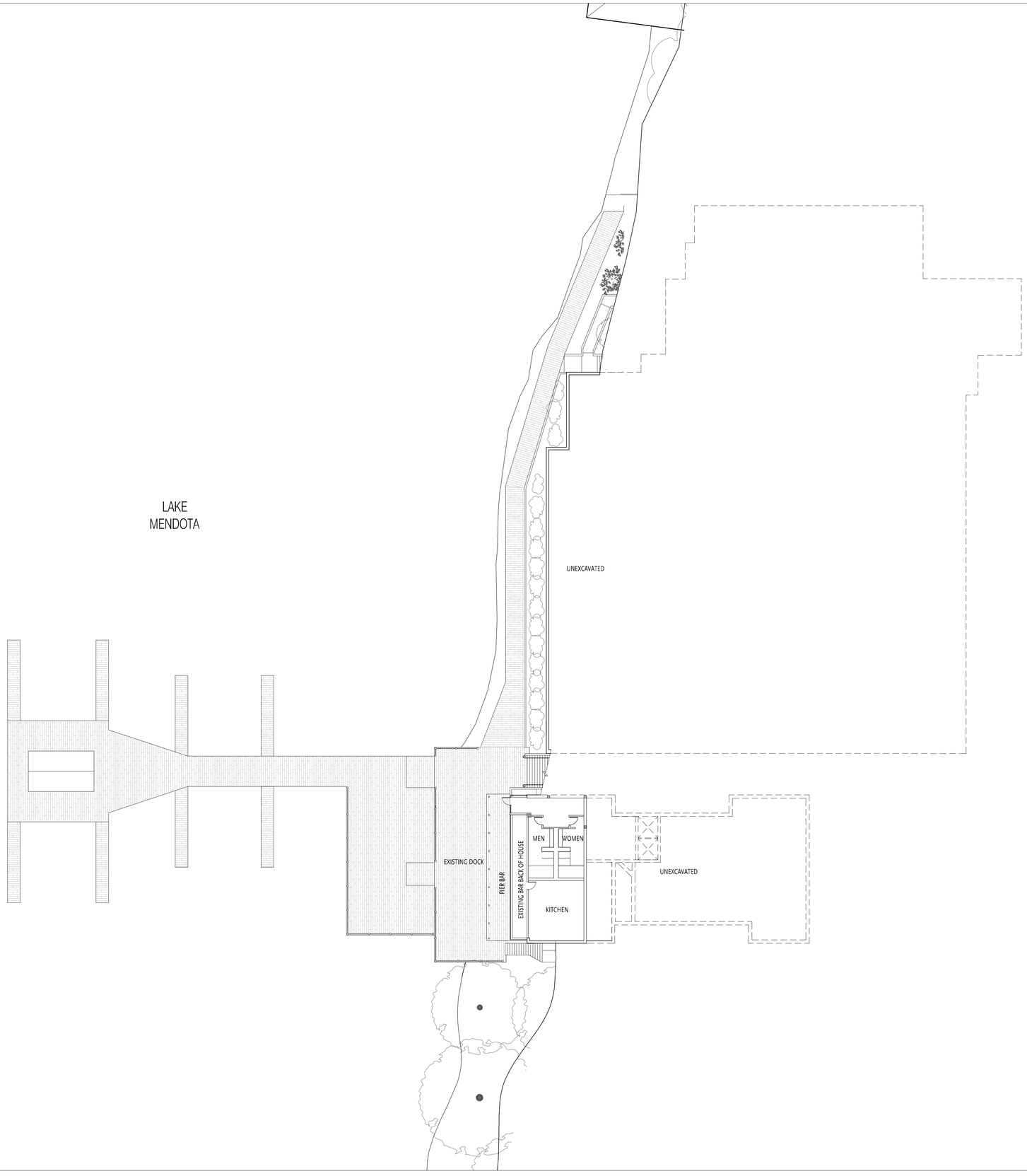
NOTE: THE 1970'S BUILDING ADDITION PLANS ARE BASED ON DRAWINGS BY LAURANCE MONBERG AND JOHN FLAD DATED DECEMBER 1971; FIELD CONDITIONS HAVE NOT BEEN VERIFIED.

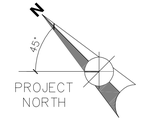
PROPOSED BUILDING

FLOOR	GUEST ROOM AREA	ROOM KEYS	CIRCULATION AREA	FUNCTION INCLUDING PRE-FUNCTION	RESTAURANT/BAR/CAFÉ INCLUDING KITCHEN	SPA / HEALTH	FITNESS CENTER/ POOL	(HOTEL) OFFICE	BACK OF HOUSE/ MECHANICAL	PARKING AREA	CARS	TOTAL FLOOR AREA (GROSS)
LOWER LEVEL 6	1,900 SF	4	2,450 SF						3,150 SF			7,500 SF
LOWER LEVEL 5	1,900 SF	4	2,450 SF						3,150 SF			7,500 SF
LOWER LEVEL 4	1,900 SF	4	2,450 SF						3,150 SF			7,500 SF
LOWER LEVEL 3	1,900 SF	4	2,450 SF						3,150 SF	25,290 SF	68	32,790 SF
PLAZA: LOWER LEVEL 2			7,330 SF	5,600 SF					7,810 SF	17,640 SF	5	38,380 SF
LOWER LEVEL 1			4,900 SF					875 SF	5,160 SF	5,000 SF		15,935 SF
LANGDON STREET: LEVEL 1			3,270 SF	1,990 SF	7,850 SF				1,240 SF			14,350 SF
2	10,150 SF	17	2,360 SF						800 SF			13,310 SF
3	10,460 SF	19	2,015 SF						825 SF			13,300 SF
4	10,460 SF	19	2,015 SF						825 SF			13,300 SF
5	10,460 SF	19	2,015 SF						825 SF			13,300 SF
6	10,190 SF	20	2,015 SF						825 SF			13,030 SF
7	8,880 SF	7	1,550 SF						510 SF			10,940 SF
8	8,880 SF	7	1,550 SF						510 SF			10,940 SF
TOTAL AREA	**77,080 SF**	**124 KEYS**	**38,820 SF**	**7,590 SF**	**7,850 SF**	**- SF**	**- SF**	**875 SF**	**31,930 SF**	**47,930 SF**	**73 CARS**	**212,075 SF**

TOTAL BUILDING AREAS

	GUEST ROOM AREA	ROOM KEYS	CIRCULATION AREA	FUNCTION	RESTAURANT/BAR	SPA / HEALTH	FITNESS CENTER/ POOL	OFFICE	BACK OF HOUSE / MECH.	PARKING AREA	CARS	TOTAL FLOOR AREA (GROSS)
TOTAL AREA	**118,724 SF**	**190 KEYS**	**57,533 SF**	**9,542 SF**	**11,745 SF**	**5,400 SF**	**5,000 SF**	**5,125 SF**	**36,460 SF**	**115,092 SF**	**226 CARS**	**364,621 SF**





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[tel] 617-426-1300

The Edgewater

666 Wisconsin Avenue
Madison, WI 53703

Owner:
Landmark X, LLC
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Madison, WI 53703

Developer:
Hammes Company
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Madison, WI 53703

Civil Engineer:
BT ^{2}, Inc.
2830 Dairy Drive
Madison, WI 53718

PROJECT NUMBER: 08105.00

DATE: October 28, 2009

REVISIONS:

1		08/18/09
2		10/28/09

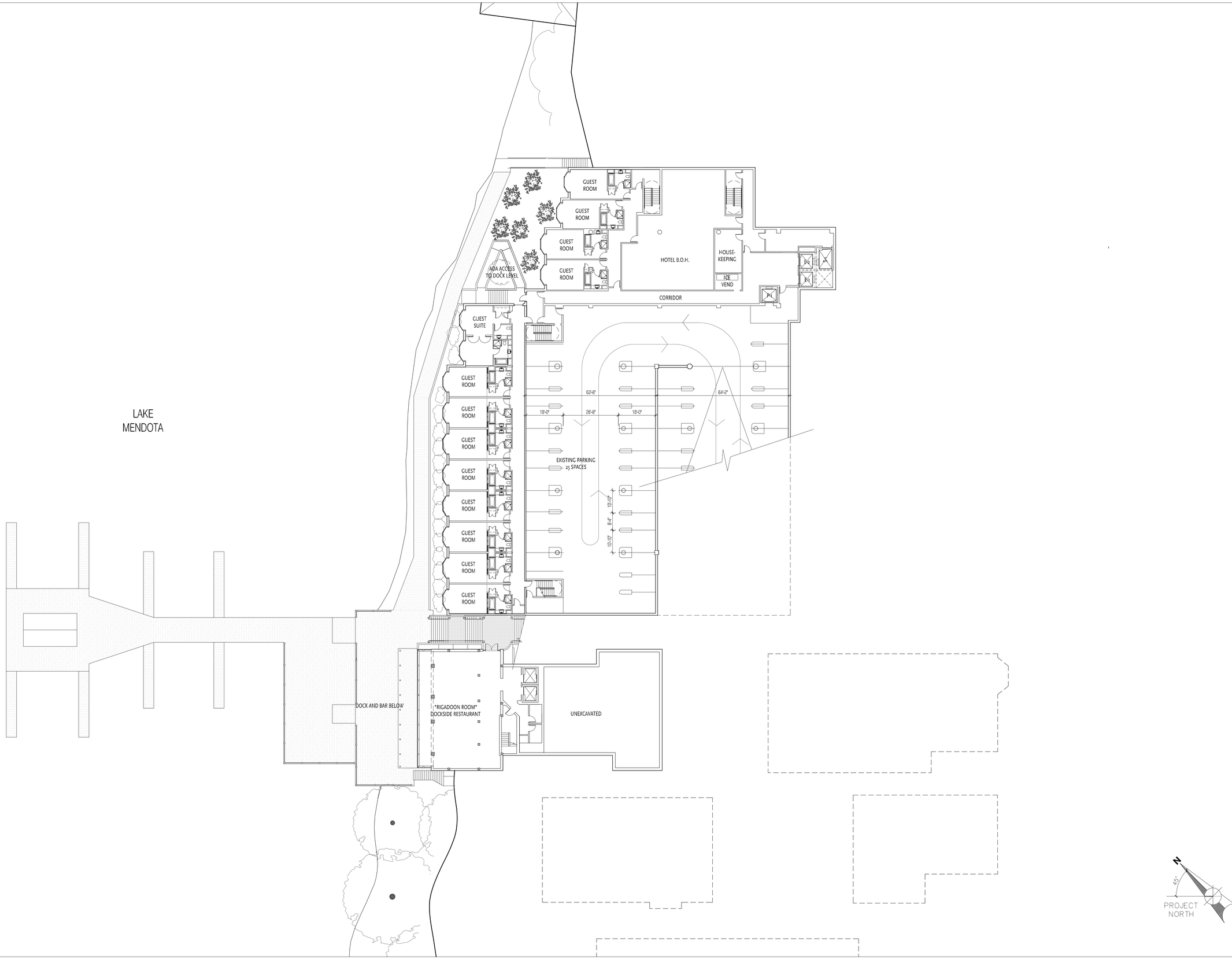
SCALE: 1"= 20'-0"

DRAWING NAME:

Dock Level Plan

DRAWING NUMBER:

A1.00



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REVISIONS:

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SCALE: 1"= 20'-0"

DRAWING NAME:

Lower Level 6

DRAWING NUMBER:

A1.01

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SCALE: 1"= 20'-0"

DRAWING NAME:

Lower Level 5

DRAWING NUMBER:

A1.02

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SCALE: 1"= 20'-0"

DRAWING NAME:
Lower Level 4

DRAWING NUMBER:

A1.03

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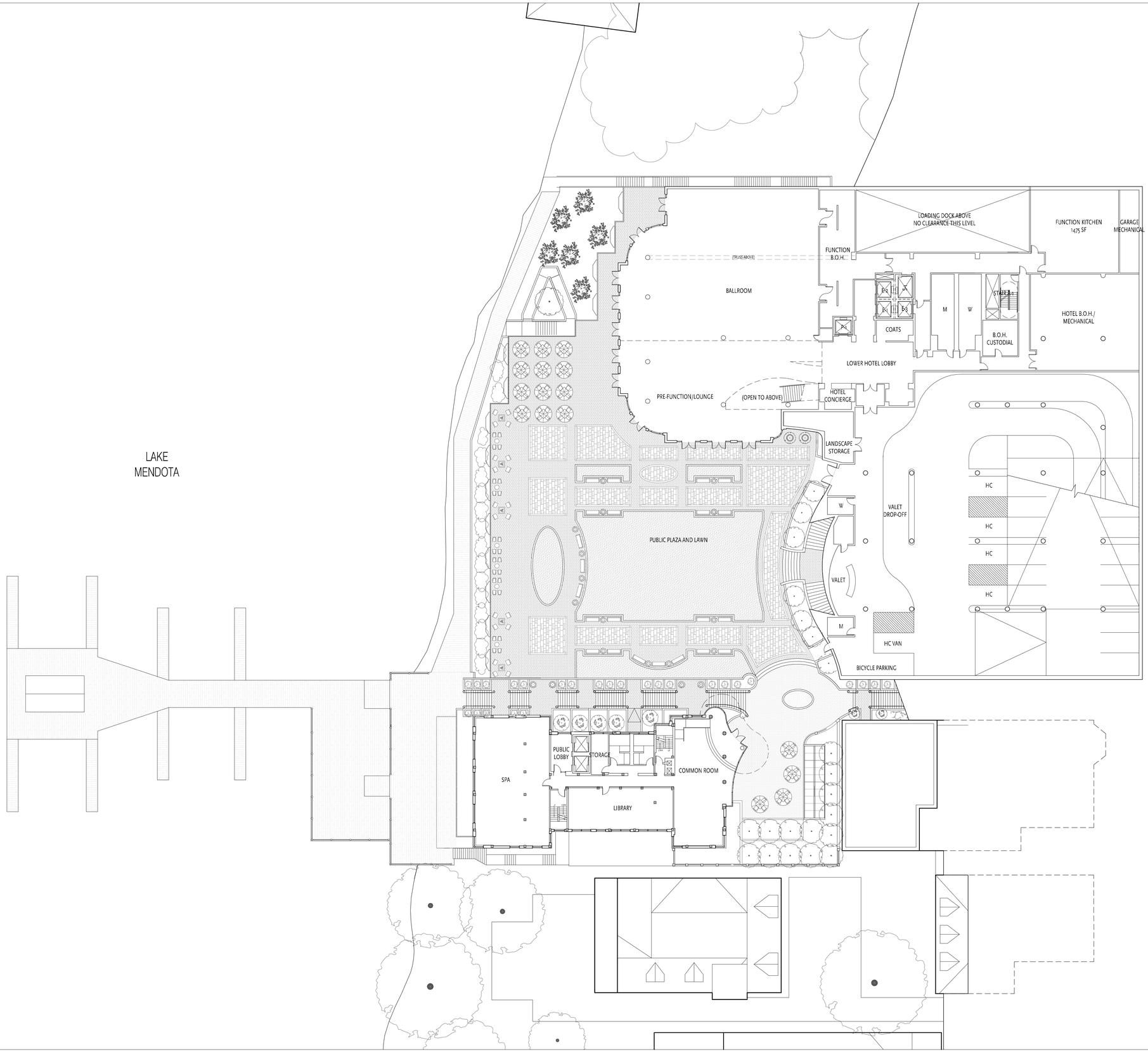
SCALE: 1"= 20'-0"

DRAWING NAME:

Lower Level 3
Plan

DRAWING NUMBER:

A1.04



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SCALE: 1"= 20'-0"

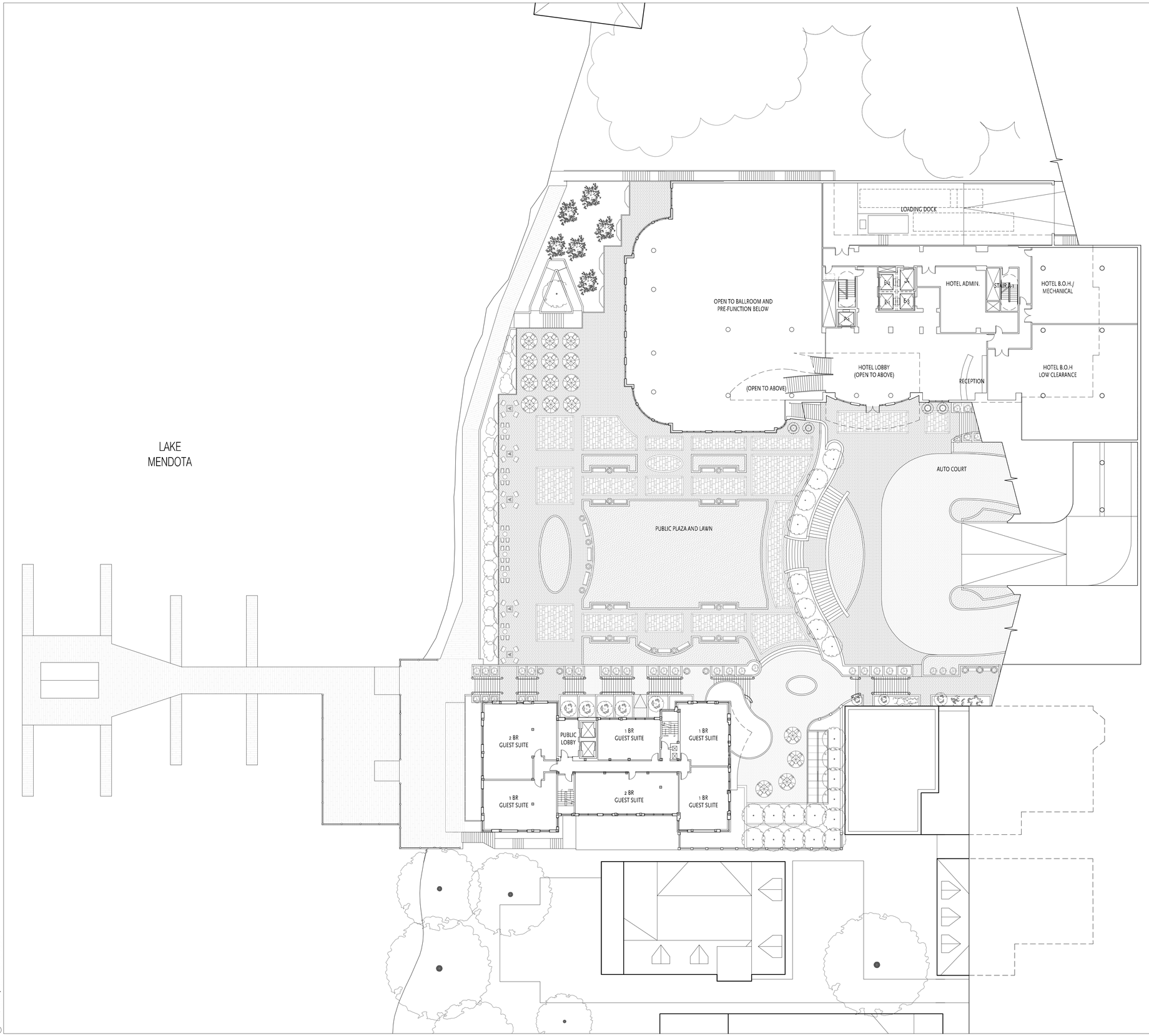
DRAWING NAME:

Lower Level 2
Plaza and Ballroom

PROJECT NORTH

DRAWING NUMBER:

A1.05



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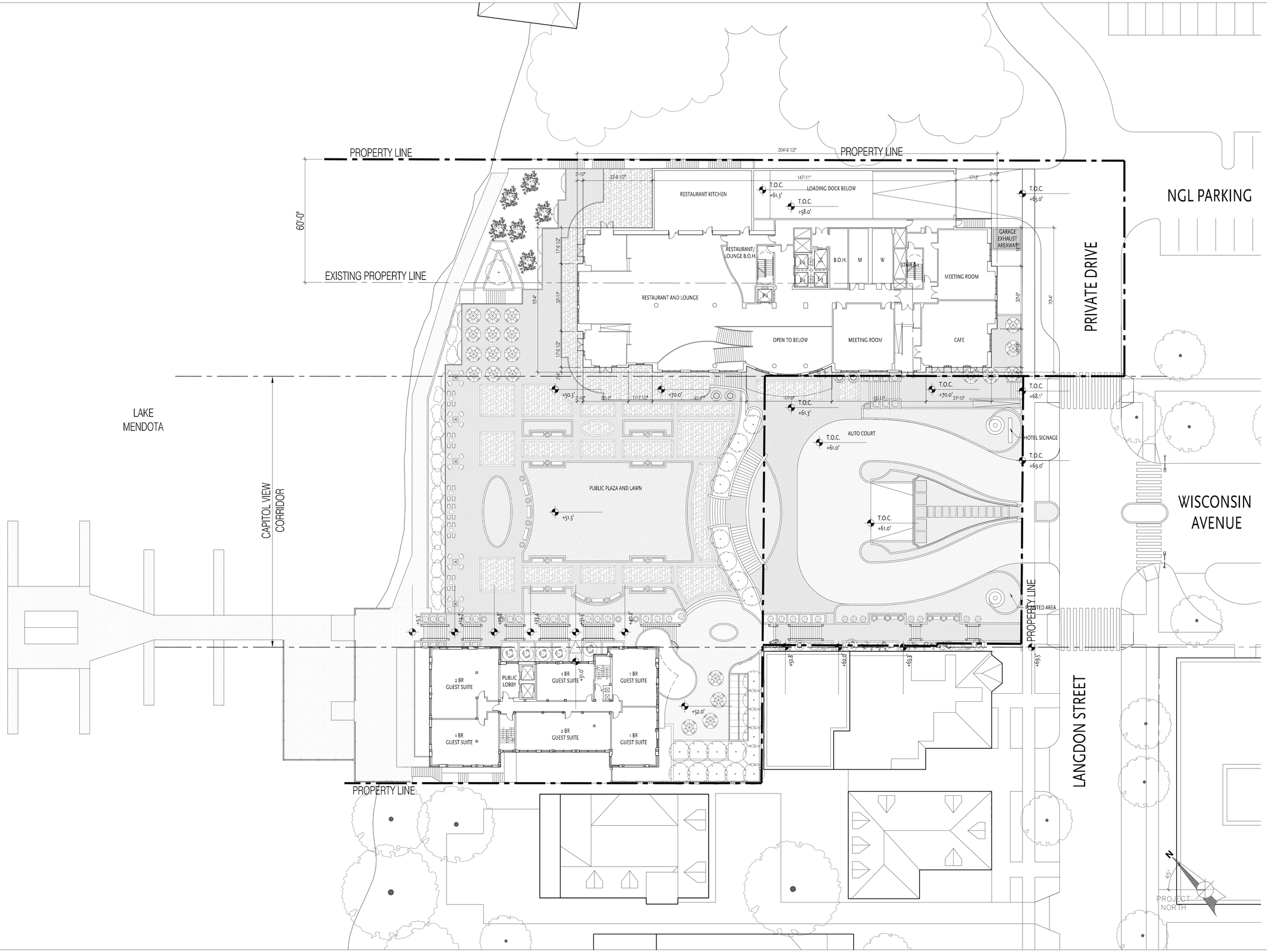
SCALE: 1"= 20'-0"

DRAWING NAME:

Lower Level 1
Auto Court

DRAWING NUMBER:

A1.06



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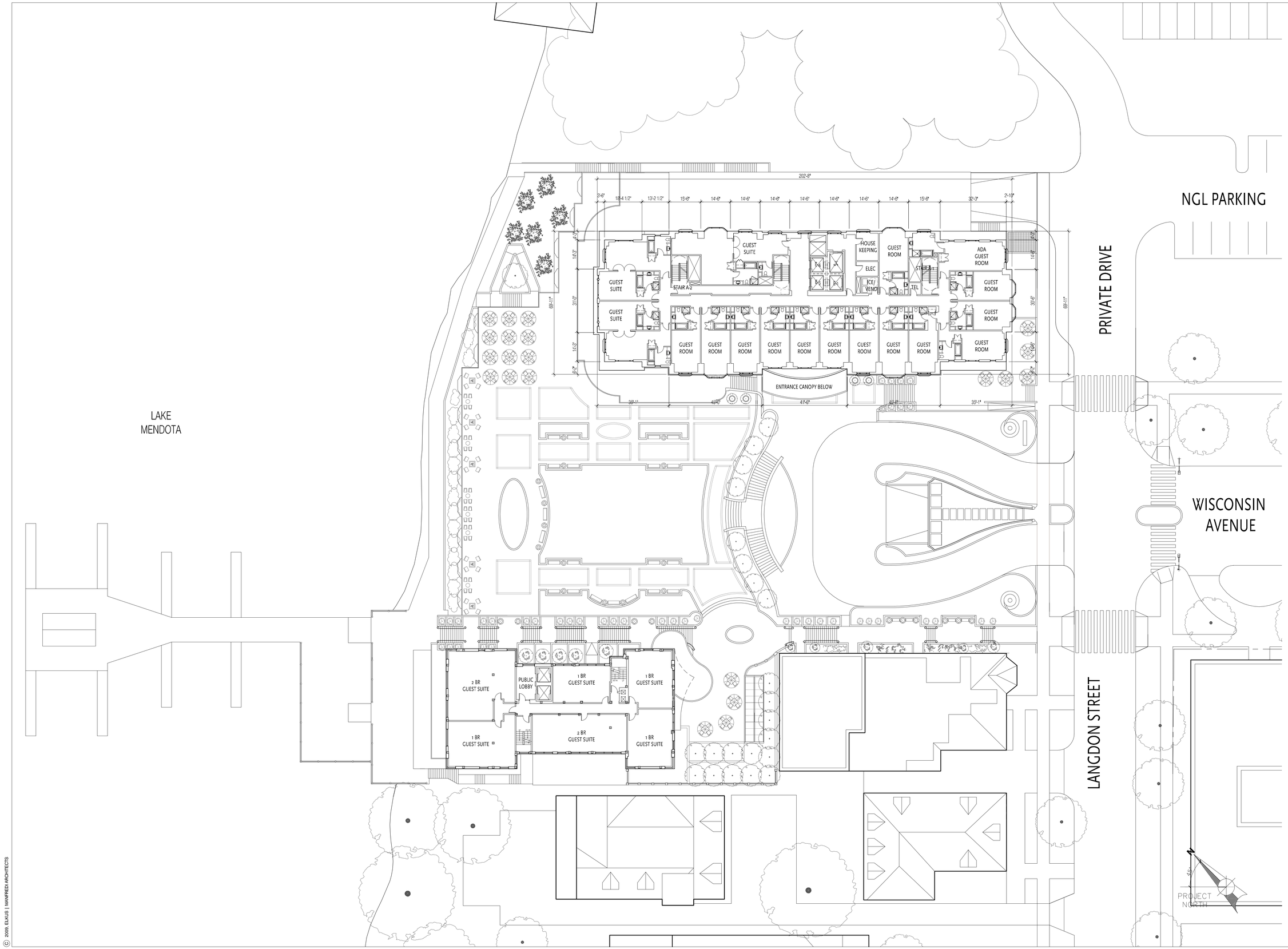
SCALE: 1"= 20'-0"

DRAWING NAME:
Floor 1
Langdon Street

DRAWING NUMBER:

A1.07



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SCALE: 1"= 20'-0"

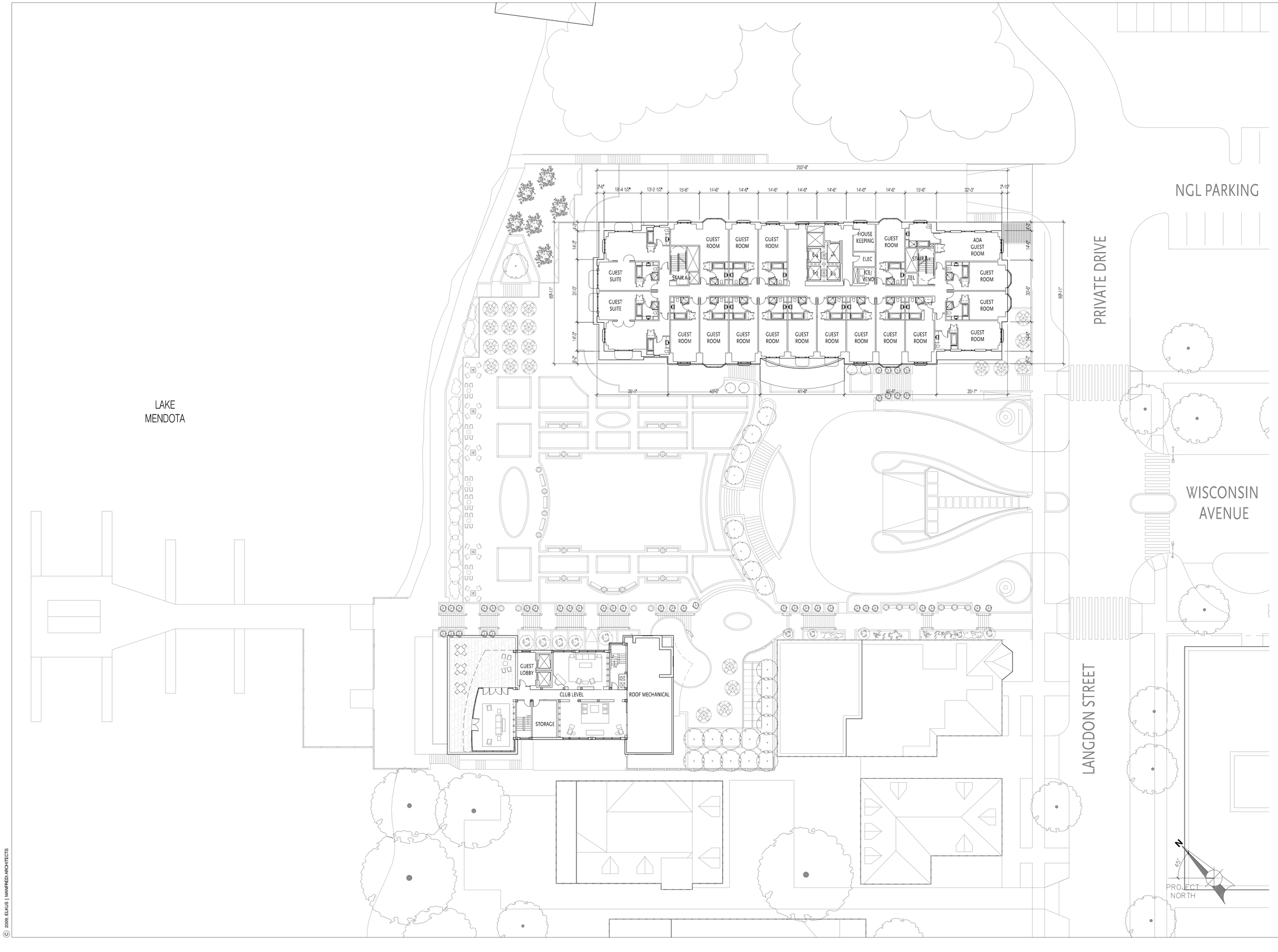
DRAWING NAME:

New Hotel Floor 2

Existing Edgewater Hotel Floors 2-4

DRAWING NUMBER:

A1.08



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SCALE: 1"= 20'-0"

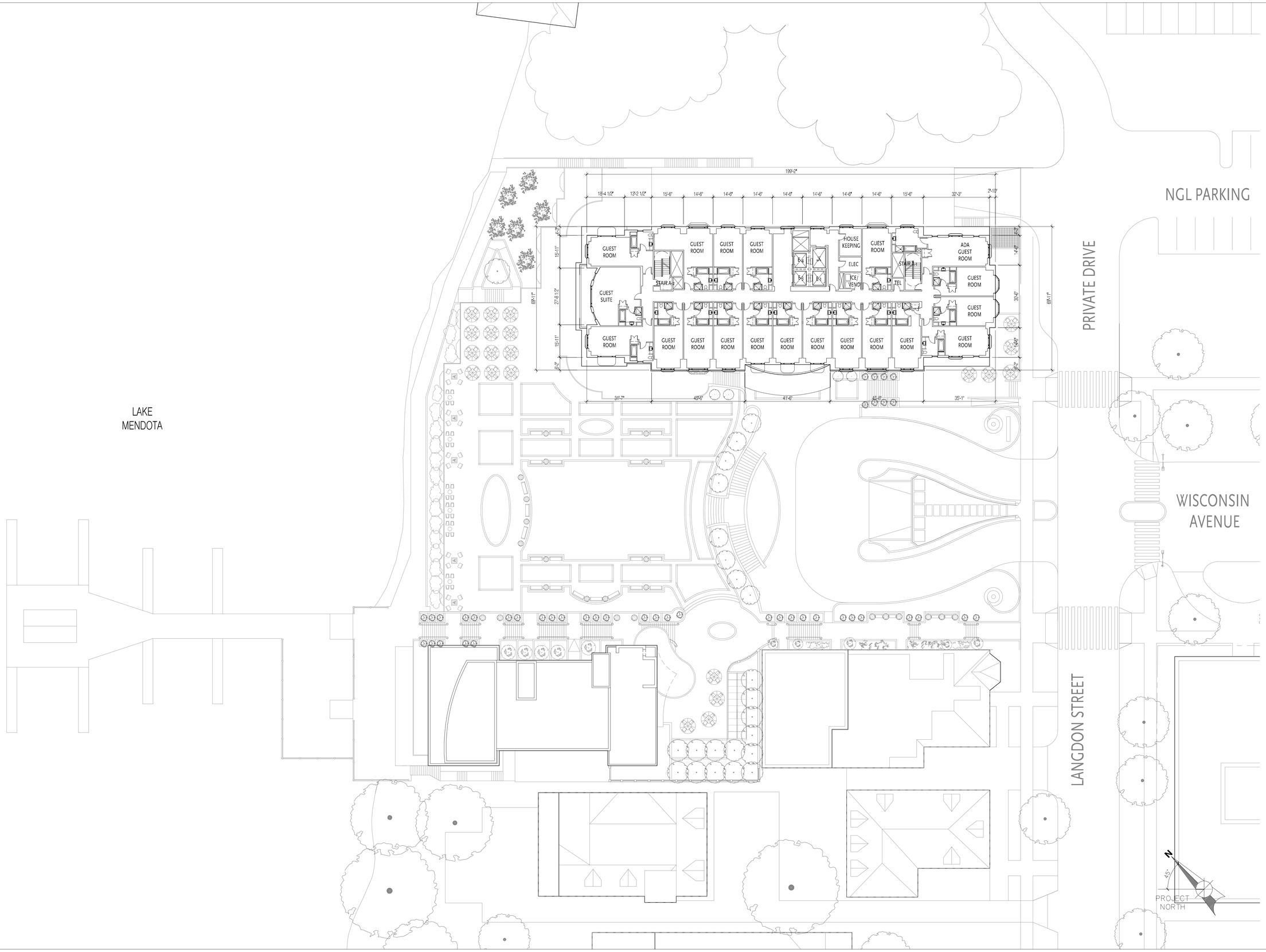
DRAWING NAME:

New Hotel Floors 3, 4, 5

Existing Edgewater Hotel Floor 5 - Previously Roof

DRAWING NUMBER:

A1.09



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SCALE: 1"= 20'-0"

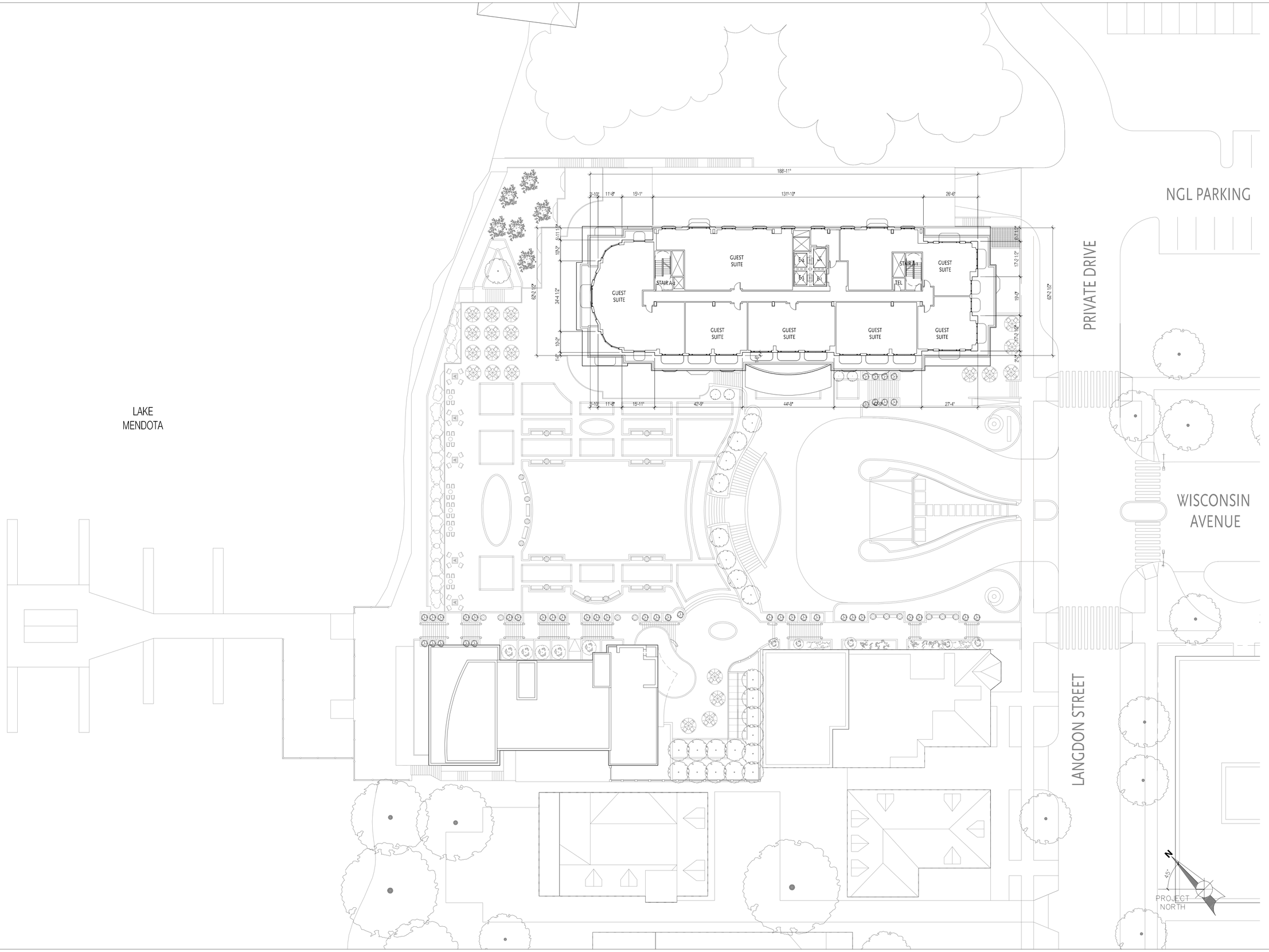
DRAWING NAME:

New Hotel Floor 6

Existing Edgewater Hotel Roof

DRAWING NUMBER:

A1.10



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SCALE: 1"= 20'-0"

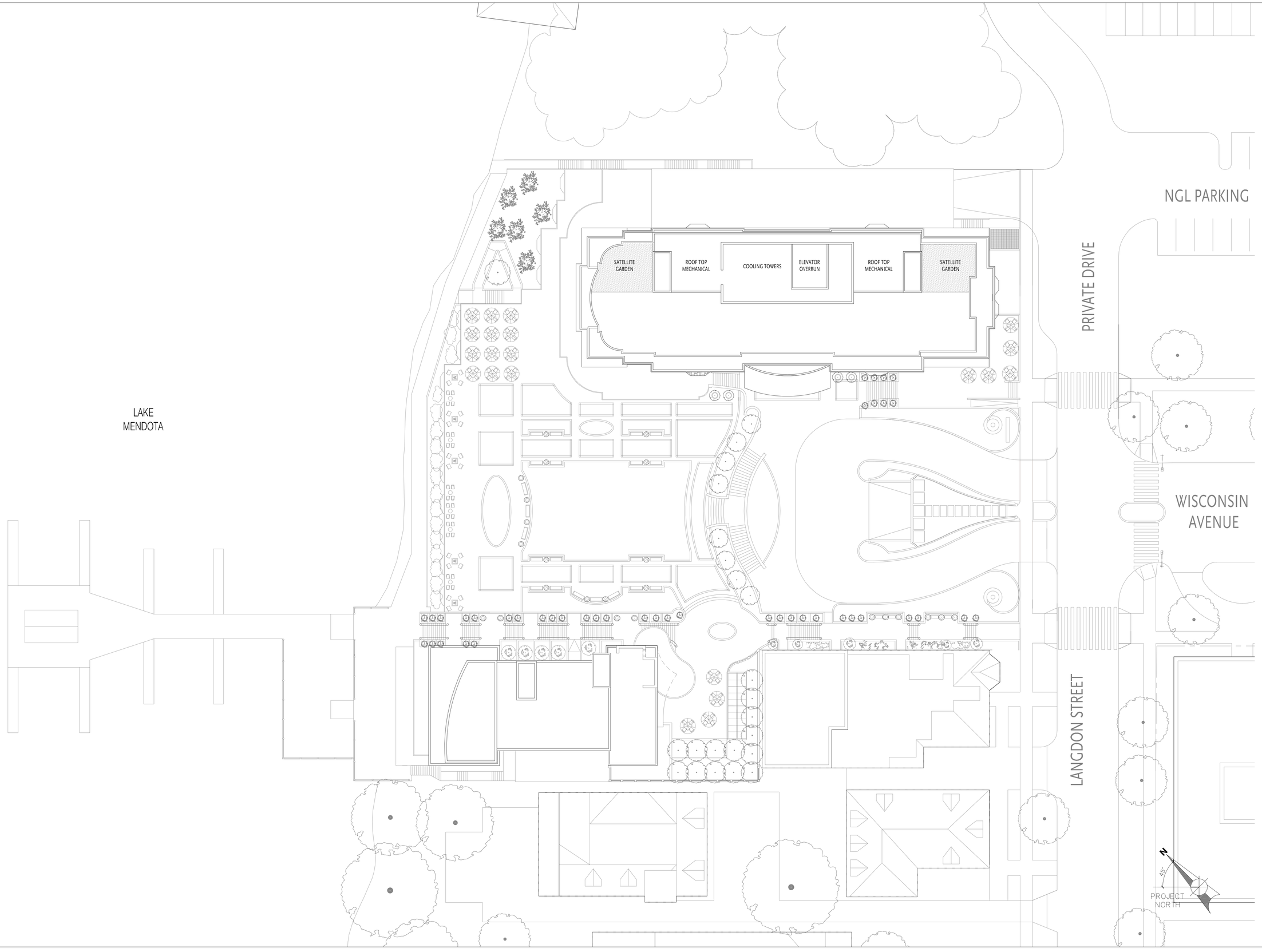
DRAWING NAME:

New Hotel Floors 7, 8

Existing Edgewater Hotel Roof

DRAWING NUMBER:

A1.11



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SCALE: 1"= 20'-0"

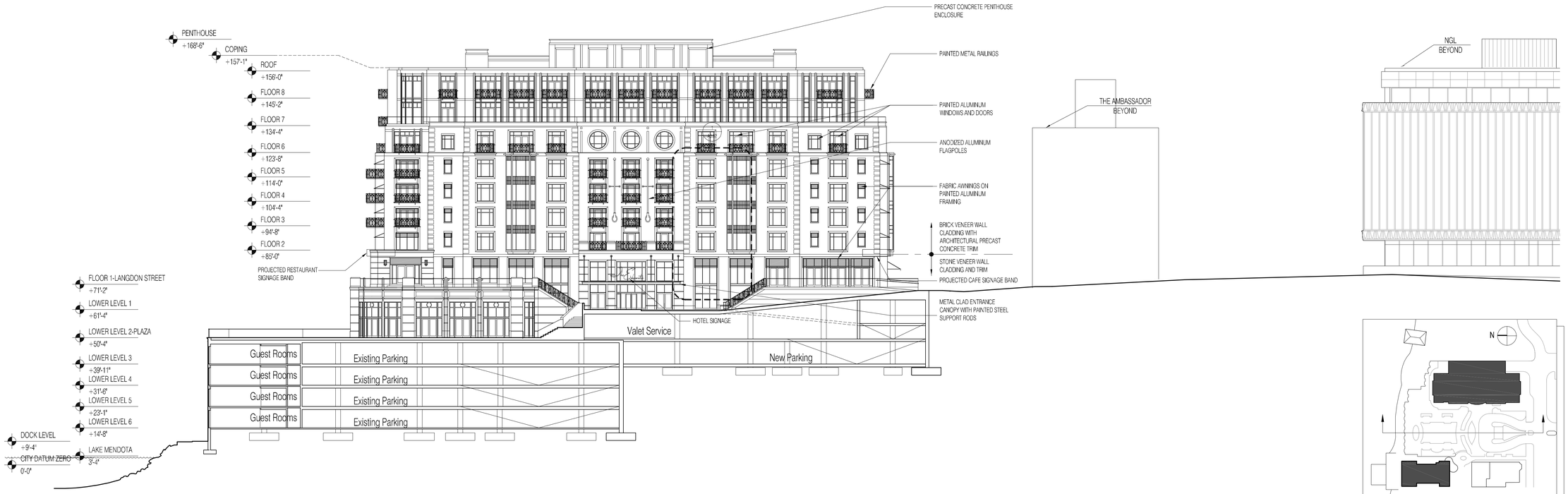
DRAWING NAME:

New Hotel Roof Plan

Existing Edgewater Hotel Roof

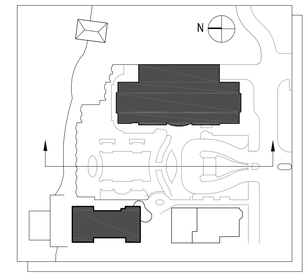
DRAWING NUMBER:

A1.12

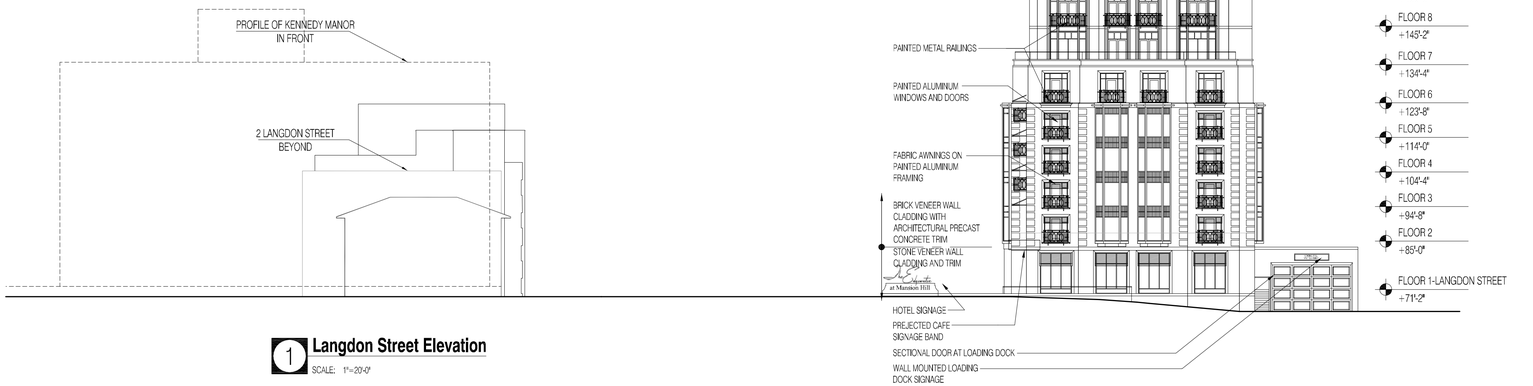


2 Section and Elevation of New Hotel at Plaza

SCALE: 1"=20'-0"

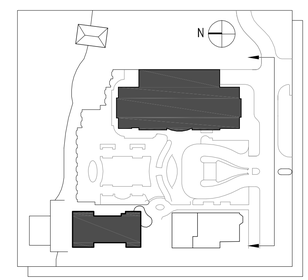


Plan Diagram



1 Langdon Street Elevation

SCALE: 1"=20'-0"



Plan Diagram

ELKUS | MANFREDI
ARCHITECTS

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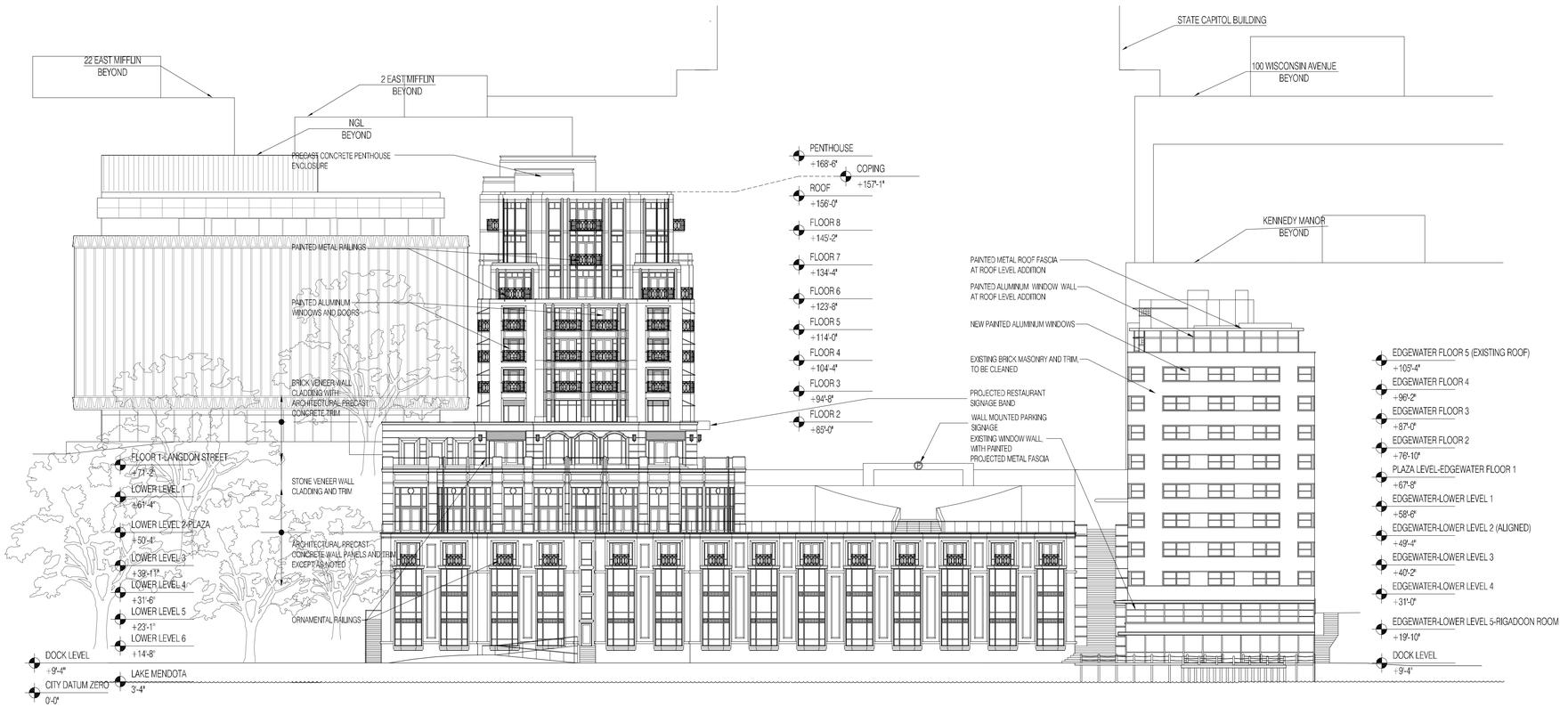
SCALE: 1"= 20'-0"

DRAWING NAME:

Elevations

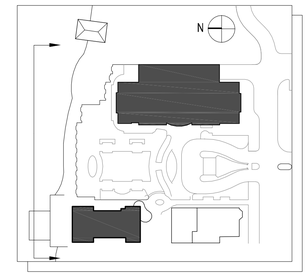
DRAWING NUMBER:

A2.01

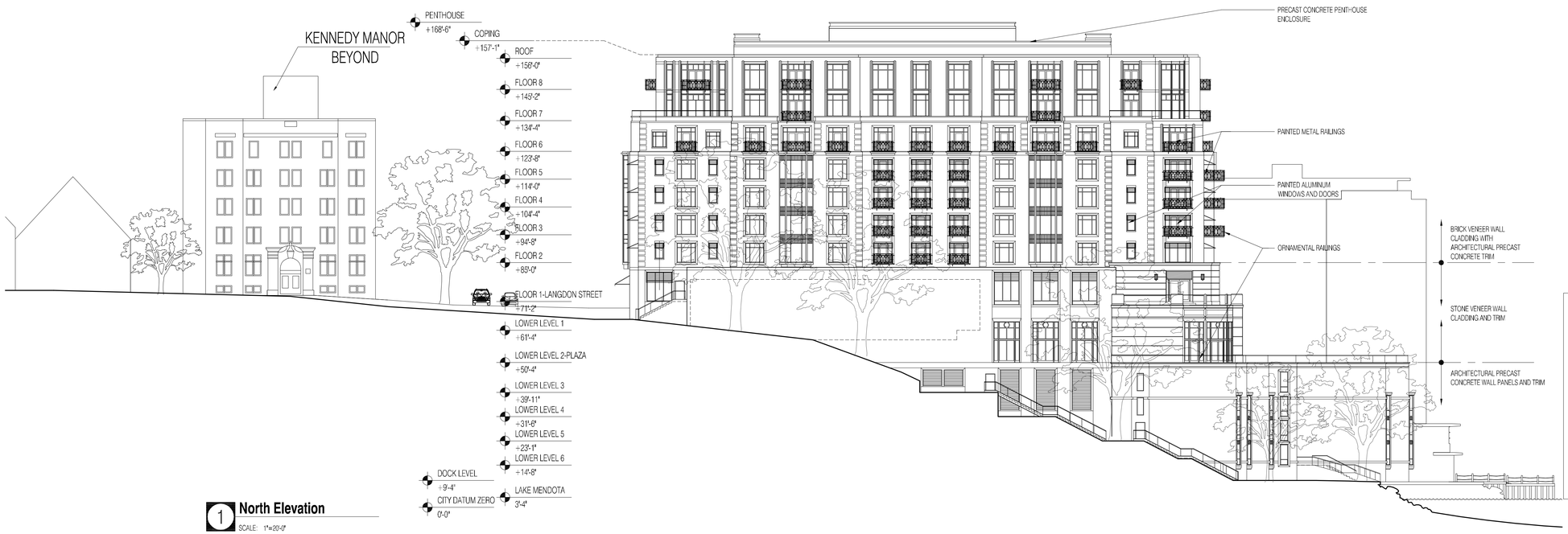


2 Lake Mendota Elevation

SCALE: 1"=20'-0"

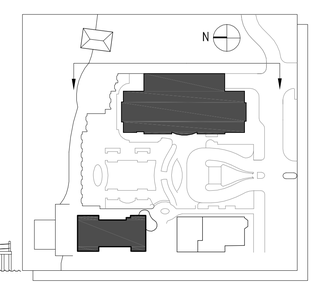


Plan Diagram



1 North Elevation

SCALE: 1"=20'-0"



Plan Diagram

ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300

The Edgewater

666 Wisconsin Avenue
Madison, WI 53703

Owner:
Landmark X, LLC
22 East Mifflin Street, Suite 800
Madison, WI 53703

Developer:
Hammes Company
22 East Mifflin Street, Suite 800
Madison, WI 53703

Civil Engineer:
BT ^{2}, Inc.
2830 Dairy Drive
Madison, WI 53718

PROJECT NUMBER: 08105.00

DATE: October 28, 2009

REVISIONS:

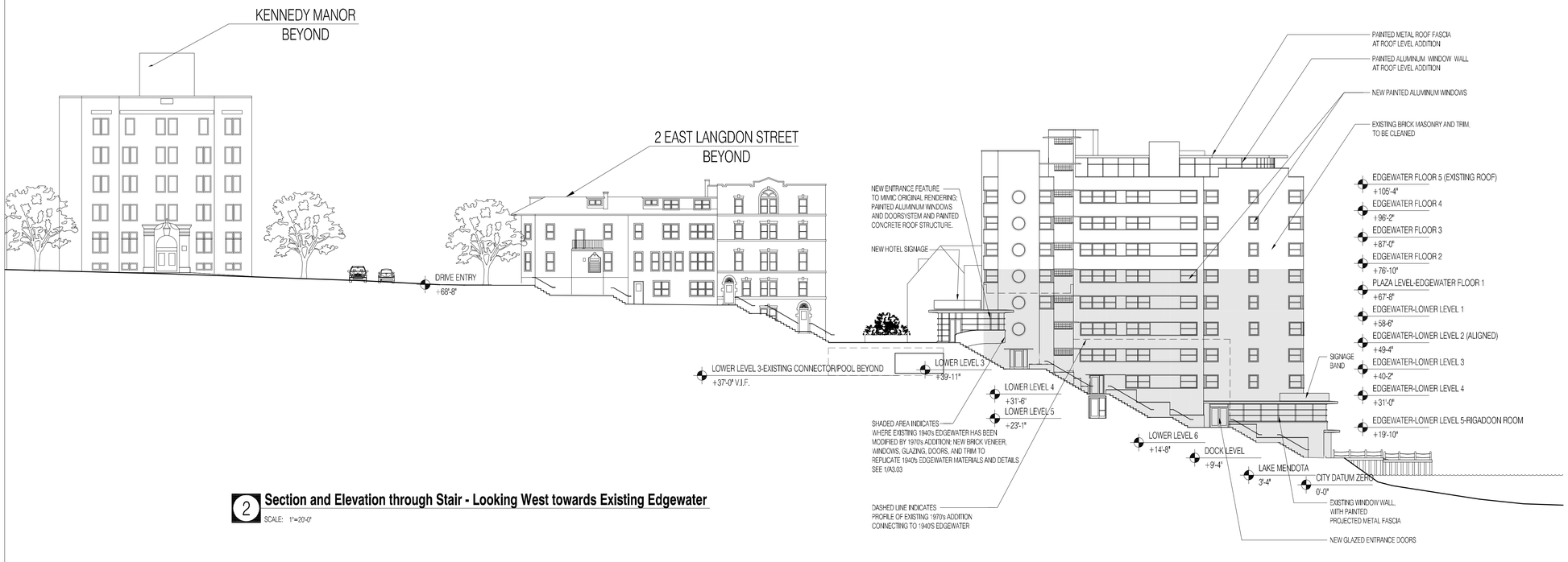
1		08/18/09
2		10/28/09

SCALE: 1"= 20'-0"

DRAWING NAME:
Elevations

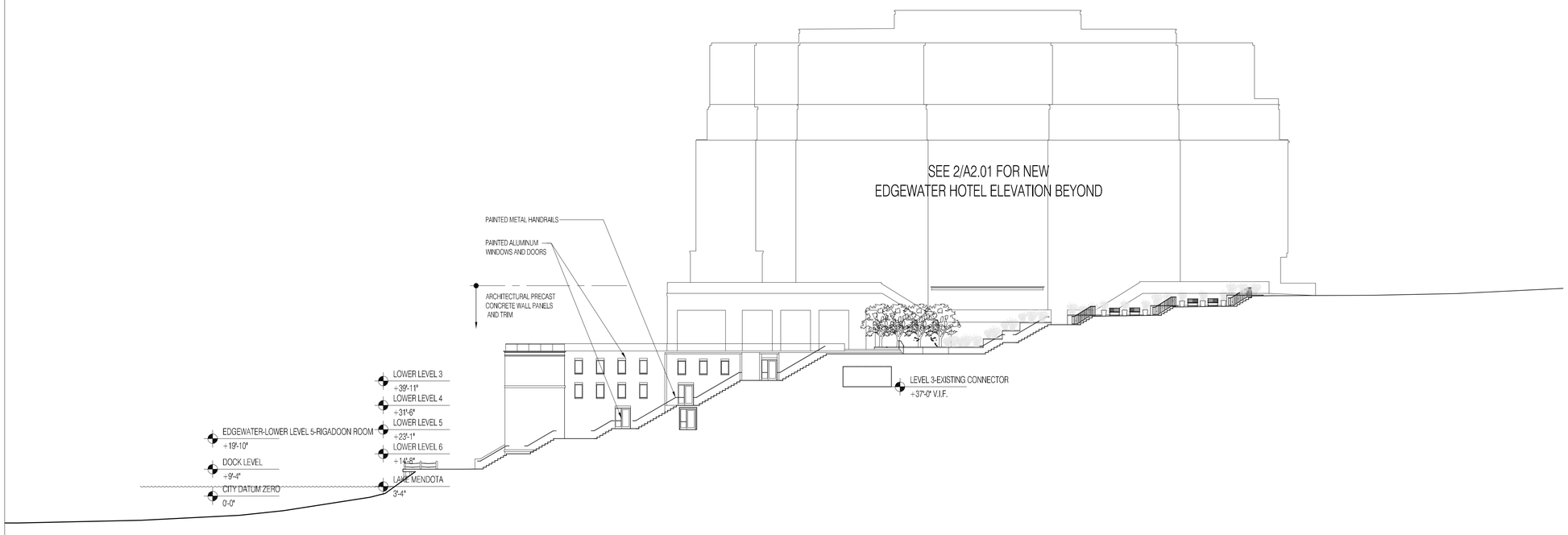
DRAWING NUMBER:

A2.02



2 Section and Elevation through Stair - Looking West towards Existing Edgewater

SCALE: 1"=20'-0"



1 Section and Elevation Through Stair - Looking East

SCALE: 1"=20'-0"

ELKUS | MANFREDI
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PROJECT NUMBER: 08105.00

DATE: October 28, 2009

REVISIONS:

1		08/18/09
2		10/23/09

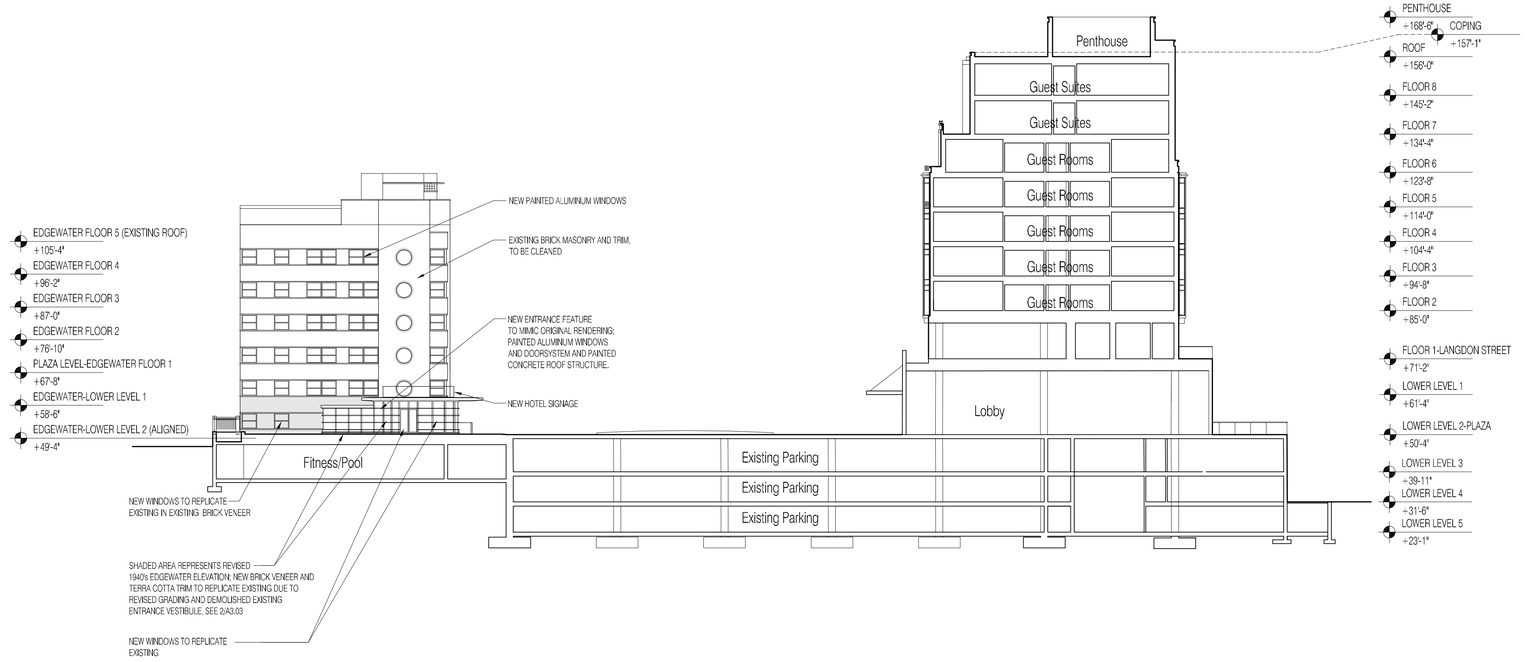
SCALE: 1"= 20'-0"

DRAWING NAME:

Elevations and Sections

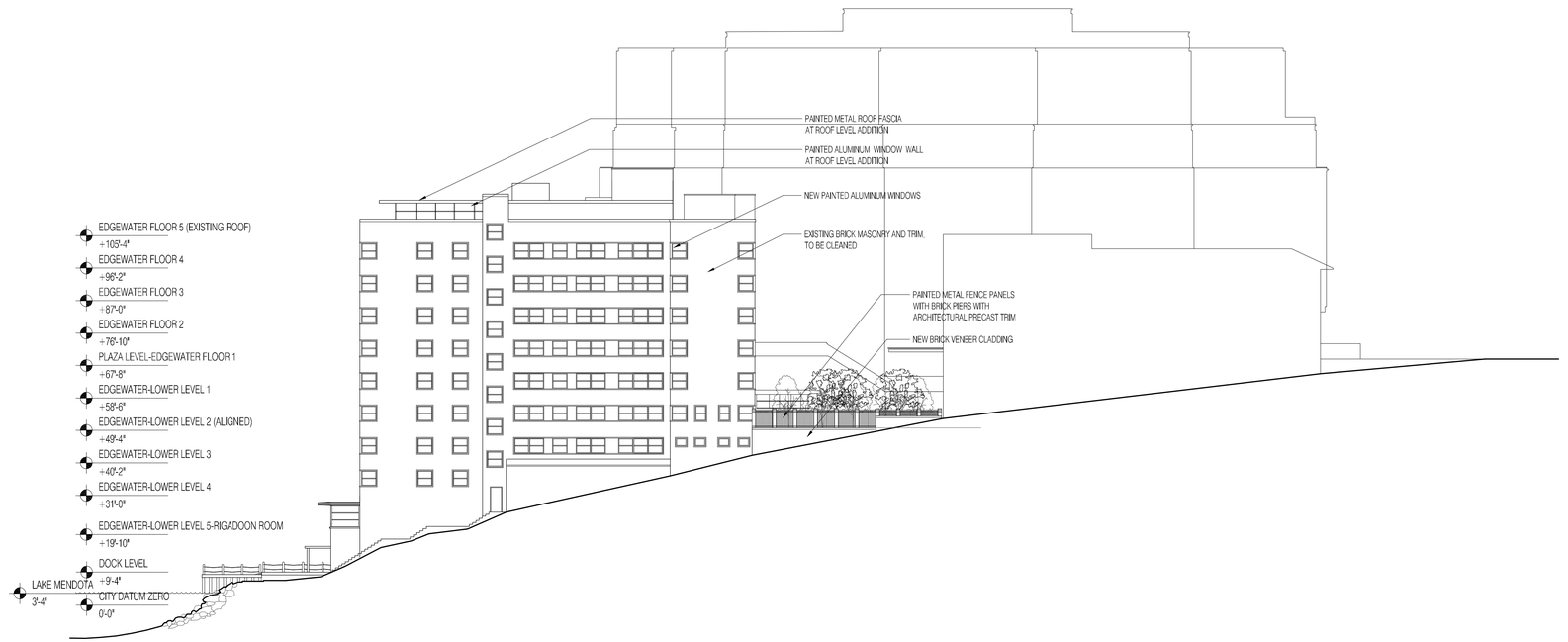
DRAWING NUMBER:

A2.03



2 Section Through New Hotel and South Elevation of Existing Edgewater Hotel

SCALE: 1"=20'-0"



1 West Elevation of Existing Edgewater Hotel

SCALE: 1"=20'-0"

ELKUS | MANFREDI
ARCHITECTS

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Madison, WI 53718

PROJECT NUMBER: 08105.00

DATE: October 28, 2009

REVISIONS:

1		08/18/09
2		10/23/09

SCALE: 1"= 20'-0"

DRAWING NAME:

Elevations and Sections

DRAWING NUMBER:

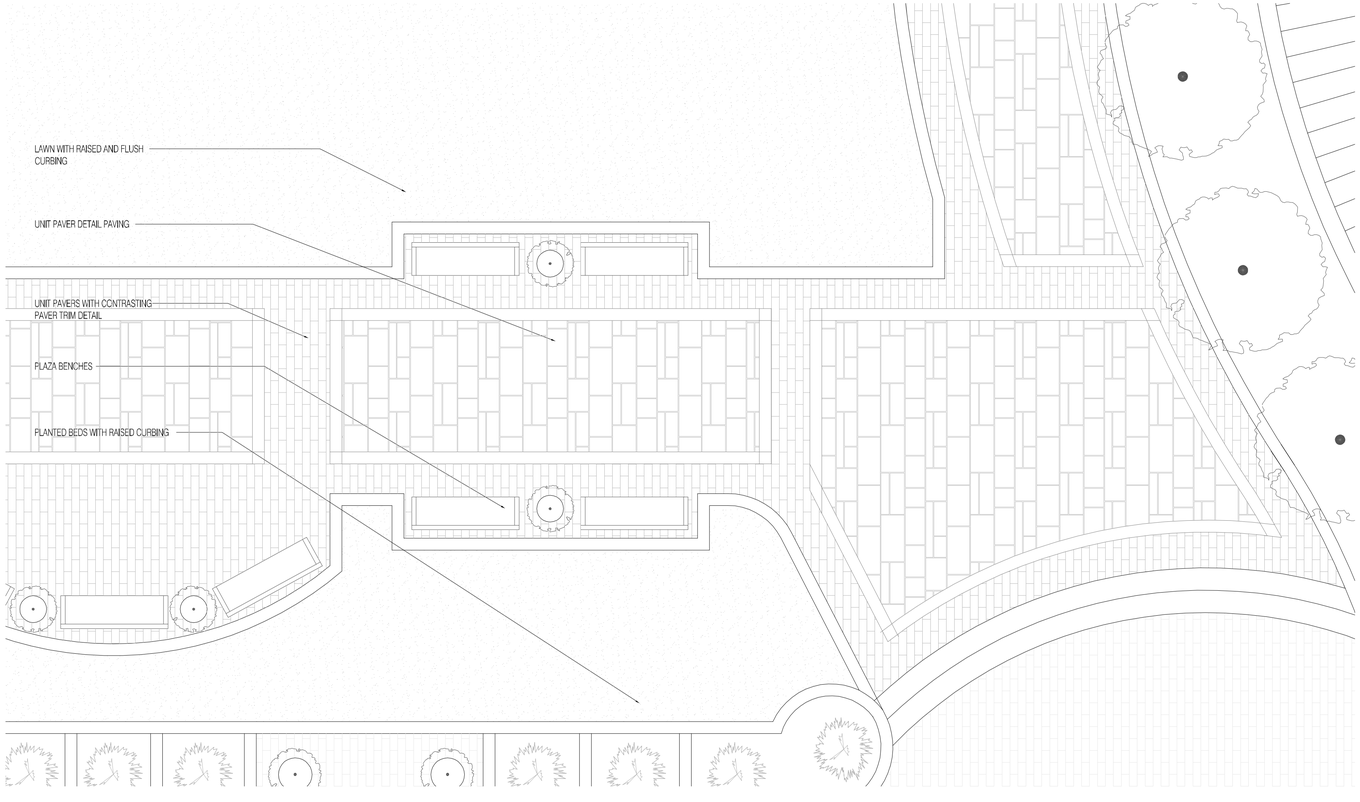
A2.04

5 **Bench Detail**
SCALE: N.T.S.

4 **Lawn with Raised and Flush Curb and Unit Pavers with Contrasting Paver Trim Details**
SCALE: N.T.S.

3 **Planted Area with Raised Curb Detail**
SCALE: N.T.S.

2 **Bicycle Rack Detail**
SCALE: N.T.S.



1 **Enlarged Plan at Plaza**
SCALE: 1/4"=1'-0"

ELKUS | MANFREDI
ARCHITECTS

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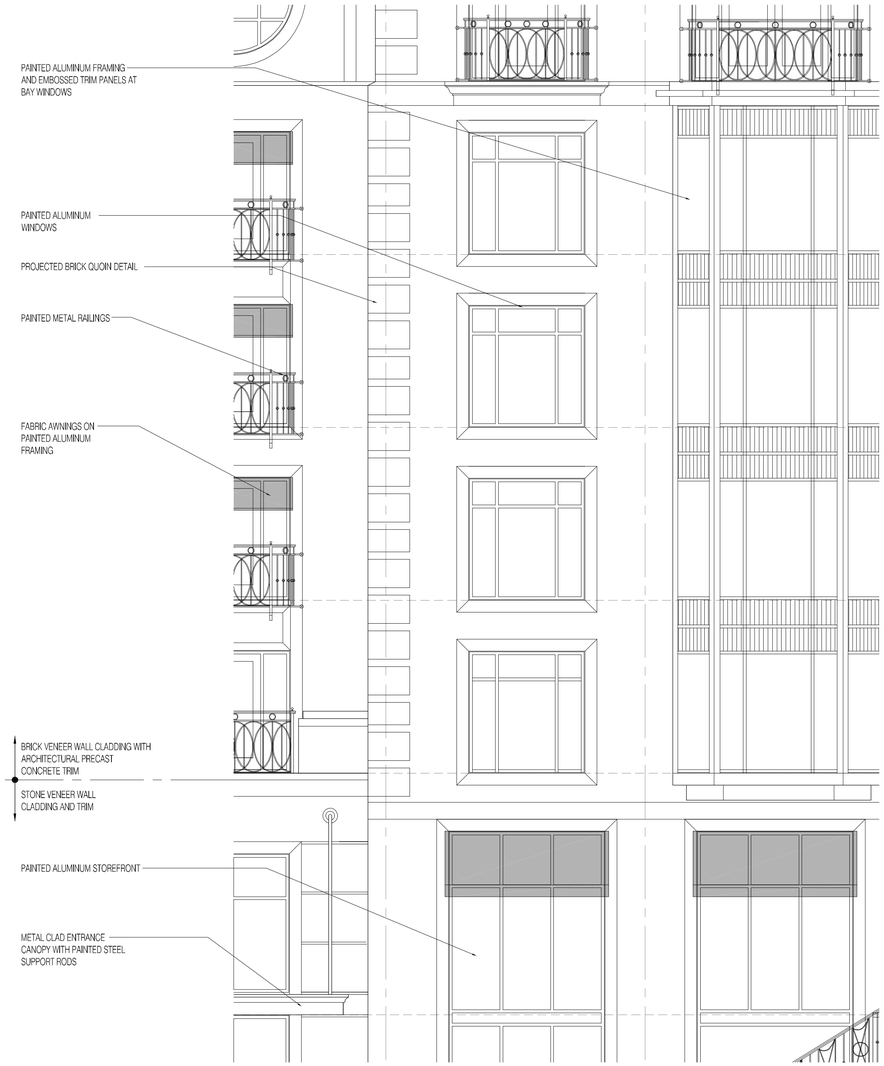
DATE: October 28, 2009

REVISIONS:
1 08/18/09
2 10/28/09

SCALE: 1/4"=1'-0"

DRAWING NAME:
PLAZA DETAILS

DRAWING NUMBER:
A3.01

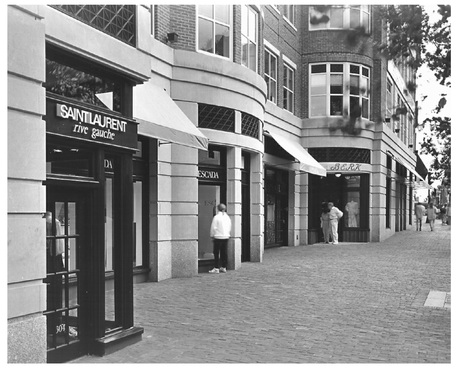


1 **Elevation Detail**
SCALE: 1/4"=1'-0"

3 **Bay Window Reference Image**
SCALE: N.T.S.

2 **Painted Metal Railing Reference Image**
SCALE: N.T.S.

5 **Brick and Stone Wall Cladding Reference Image**
SCALE: N.T.S.



4 **Storefront, Awning, and Stone Detail Reference Image**
SCALE: N.T.S.

ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
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PROJECT NUMBER: 08105.00

DATE: October 28, 2009

REVISIONS:

1		08/18/09
2		10/28/09

SCALE: 1/4"=1'-0"

DRAWING NAME:
ELEVATION DETAILS

DRAWING NUMBER:
A3.02

ELKUS | MANFREDI
ARCHITECTS

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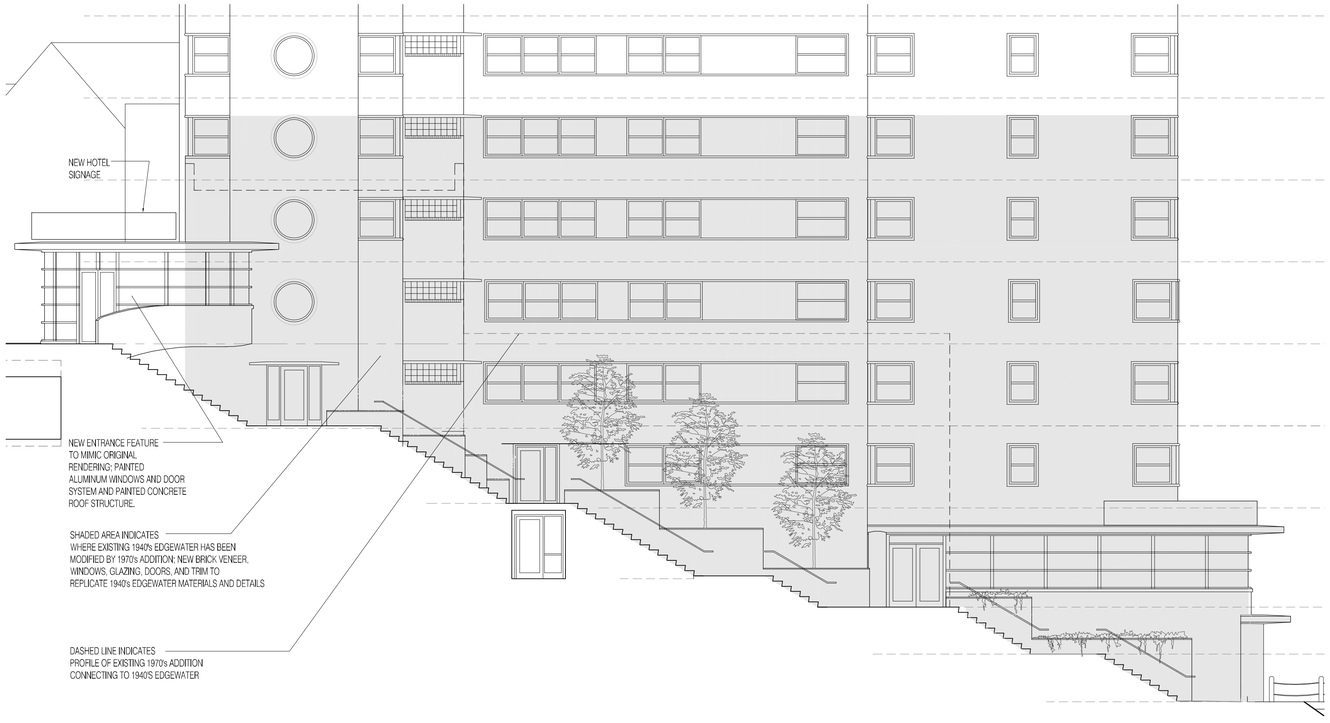
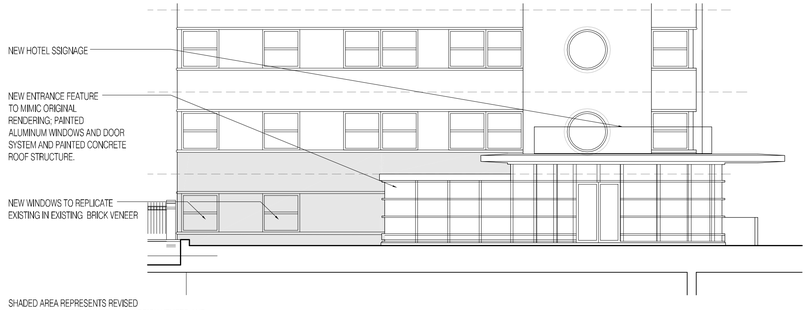
2830 Dairy Drive
Madison, WI 53718

3 **Original Edgewater Rendering for Reference**
SCALE: N.A.



1 **Partial Enlarged Elevation at New Construction**
SCALE: 1/8"=1'-0"



2 **Partial Enlarged Elevation at New Construction**
SCALE: 1/8"=1'-0"

PROJECT NUMBER: 08105.00

DATE: October 28, 2009

REVISIONS:

1		08/18/09
2		10/28/09

SCALE: VARIES

DRAWING NAME:

1940'S BUILDING
PARTIAL ENLARGED
ELEVATIONS

DRAWING NUMBER:

A3.03

LEGEND

- GRADE (2' CONTOUR)
- GRADE (10' CONTOUR)
- TREELINE/VEGETATION
- SHORELINE
- PROPERTY LINE (SUBJECT PROPERTY)
- PARCEL LINE (SUBJECT PROPERTY)
- PROPERTY LINE/RIGHT-OF-WAY
- FENCE
- ELECTRIC UTILITY
- GAS MAIN
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- HYDRANT
- STORM INLET
- MANHOLE
- UTILITY/LIGHT POLE
- TREE

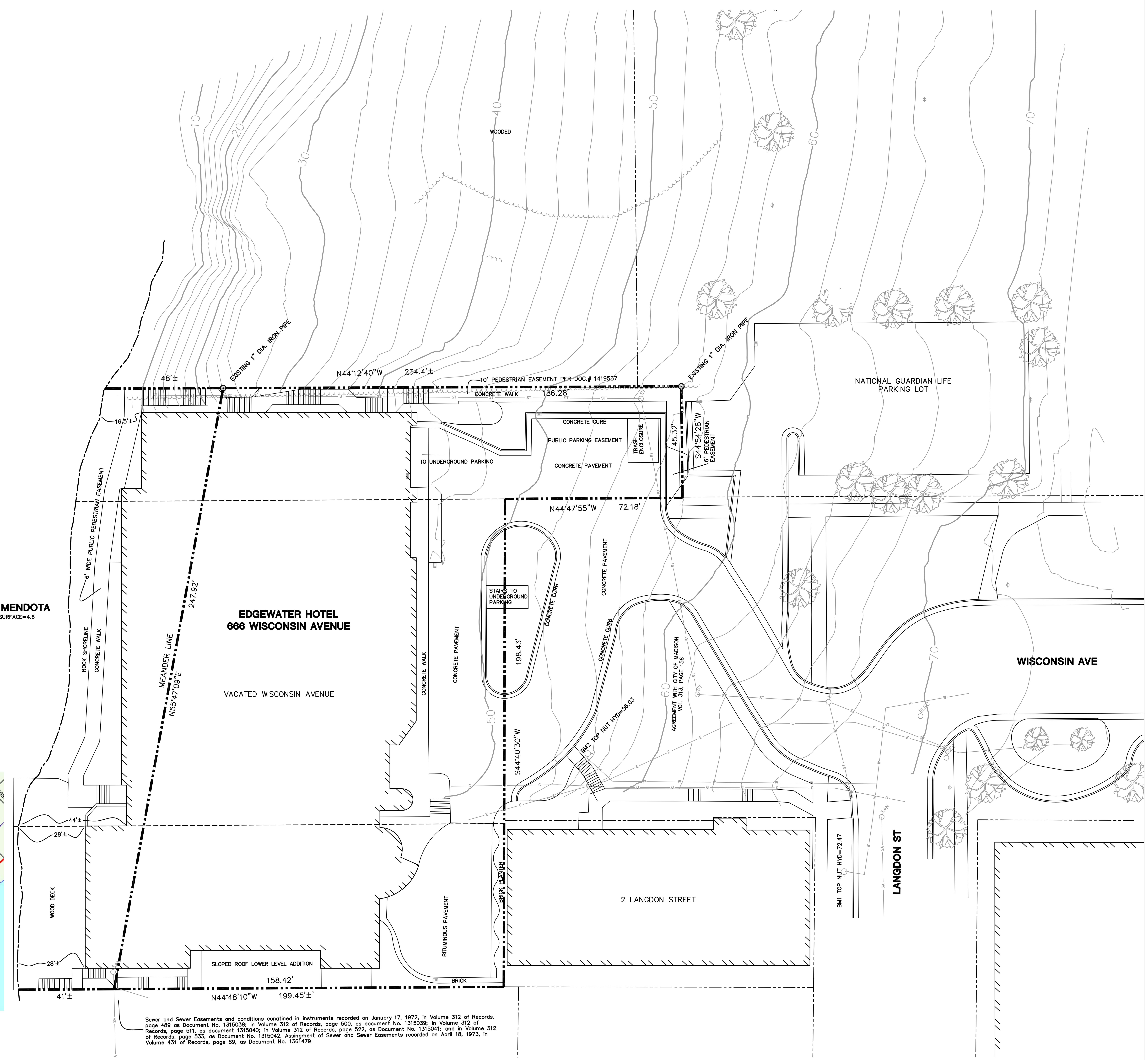
20 0 20

SCALE: 1" = 20'

PROJECT NORTH

NOTES:

1. SUBJECT PROPERTY LINE AND EXISTING BUILDING LOCATIONS BASED ON ALTA SURVEY PREPARED BY BADGER SURVEYING AND MAPPING SERVICE, JULY 17, 1997.
2. RIGHT-OF-WAY AND OTHER PROPERTY LINES BASED ON DRAWING OBTAINED FROM THE CITY OF MADISON.
3. TOPOGRAPHIC CONTOURS, VEGETATION, AND UTILITY LOCATIONS BASED ON SITE SURVEY PERFORMED BY BT², INC. ON JUNE 30, 2009.
4. ELEVATIONS ARE BASED ON CITY OF MADISON DATUM.
5. EXISTING EDGEWATER PARCEL = 1.09 ACRES MORE OR LESS.
6. BASED ON THE JANUARY 2, 2009 FLOOD INSURANCE RATE MAP (PANEL 409 OF 850), THE SITE IS NOT IN A FLOOD PLAIN.



SITE LOCATION MAP

BT² inc.
2830 DAIRY DRIVE
MADISON, WI 53718-6751
PHONE: (608) 224-2830
FAX: (608) 224-2839

The Edgewater

666 Wisconsin Avenue
Madison, WI 53703

Owner:
Landmark X, LLC
22 East Mifflin Street, Suite 800
Madison, WI 53703

Developer:
Hammes Company
22 East Mifflin Street, Suite 800
Madison, WI 53703

Civil Engineer:
BT Squared, Inc.
2830 Dairy Drive
Madison, WI 53718

PROJECT NUMBER: 3826

DATE: October 28, 2009

REVISIONS:

1		08/18/09
2		10/28/09

SCALE: 1" = 20'

DRAWING NAME:

SITE SURVEY

DRAWING NUMBER:

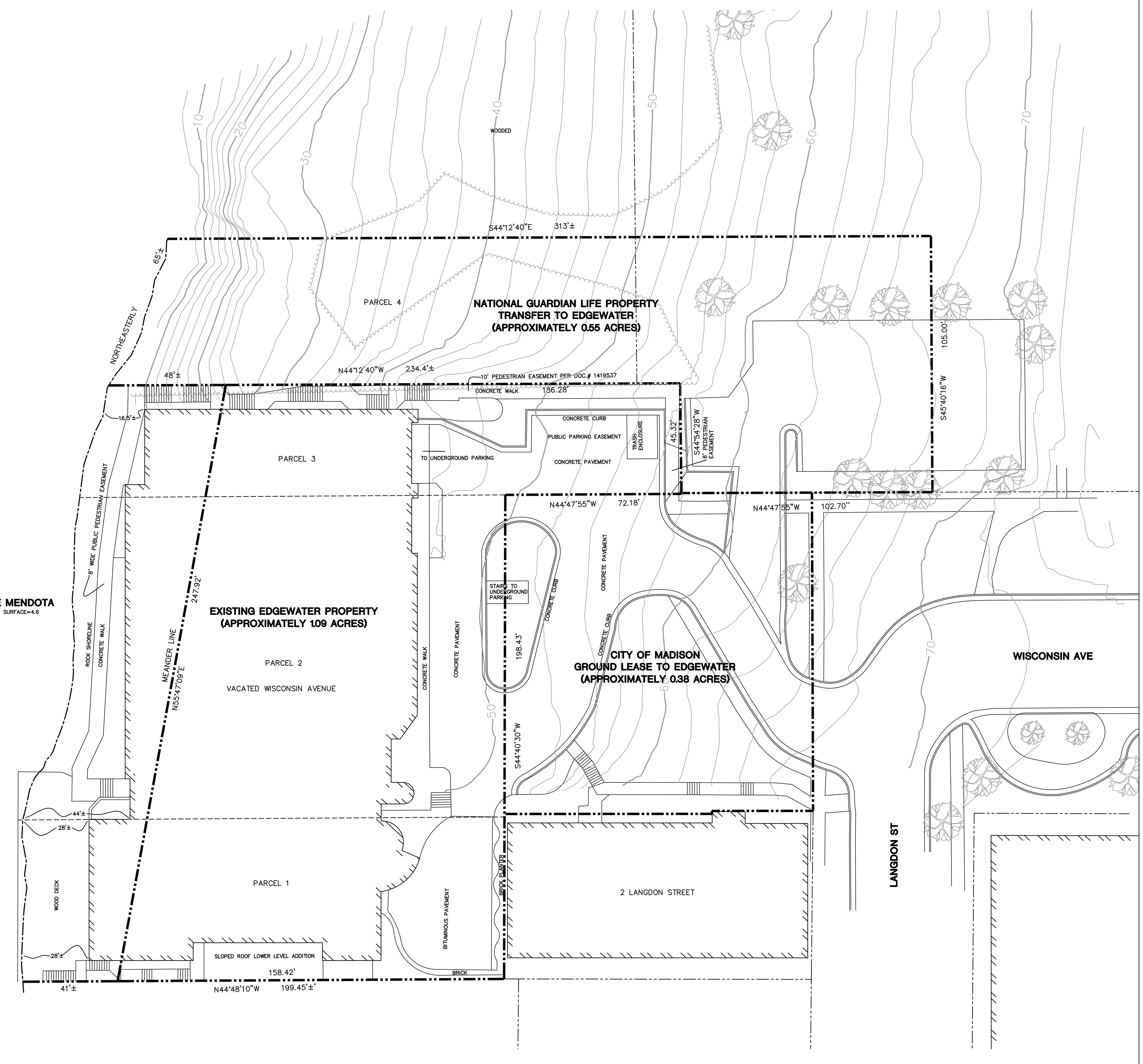
C1.01

LEGEND

- GRADE (2' CONTOUR)
- GRADE (10' CONTOUR)
- TREELINE/VEGETATION
- SHORELINE
- PROPERTY LINE (SUBJECT PROPERTY)
- PROPERTY LINE/RIGHT-OF-WAY
- TREE

SCALE: 1" = 20'

PROJECT NORTH



PARCEL DESCRIPTIONS

PARCEL 1:

All that part of Lot Five (5), lying Northwest of the Southeast 126 feet thereof, in Block Seventy-eight (78), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin.

PARCEL 2:

All of that portion of vacated Wisconsin Avenue, in the City of Madison. Dane County. Wisconsin, lying Northwesterly of a line parallel to the Northwesterly line of Langdon Street extended Northeasterly and 126 feet Northwesterly from such extended line of Langdon Street.

PARCEL 3:

Part of Block Two Hundred Sixty-three (263), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin, described as follows: Beginning at the most southerly corner of Block 94, said point being the point of intersection of the Northwest line of East Gilman Street with the Northeast line of Wisconsin Avenue; thence Northwesterly along said Northeasterly line of Wisconsin Avenue 383.6 feet to the point of beginning of this description; thence Northeasterly at right angles to last described line 45.0 feet; thence Northwesterly parallel with the Northeast line of Wisconsin Avenue (now vacated) 186.4 feet to an iron stake, on a meander line, which is 36.0 feet more or less Southeasterly from the low water mark of Lake Mendota; thence Southwesterly along said meander line 45.0 feet to an iron stake on the Northeast line of Wisconsin Avenue which is 48.6 feet Southeasterly from the low water mark of Lake Mendota and also 186.4 feet Northwesterly from the point of beginning; thence Southeasterly along said line 186.4 feet to the point of beginning. Also, all land lying Northwesterly of above described meander line to the low water mark of Lake Mendota.

PARCEL 1, 2, & 3 Contain 48,230 SQFT/ 1.09 Acres more or less.

PARCEL 4:

Part of Block Two Hundred Sixty-three (263), Madison, according to the recorded plat thereof, in the City of Madison, Dane County, Wisconsin, described as follows: Beginning at the most southerly corner of Block 94, said point being the point of intersection of the Northwest line of East Gilman Street with the Northeast line of Wisconsin Avenue; thence Northwesterly along said Northeasterly line of Wisconsin Avenue 383.6 feet to the point of beginning of this description; thence N44°54'28"E, 45.32 feet; thence N44°12'40"W, 234.4 feet more or less to the shore of Lake Mendota; thence Northeasterly, 65 feet more or less, along the shore of Lake Mendota; thence S44°12'40"E, 313' feet more or less; thence S45°40'16"W, 105.00 feet; thence N44°47'55"W, 102.70 feet to the point of beginning.

PARCEL 4 Contains 24,140 SQFT/ 0.55 Acres more or less.

BT² inc.

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2830 Dairy Drive
Madison, WI 53718

PROJECT NUMBER: 3826

DATE: October 28, 2009

REVISIONS:

1 08/18/09
2 10/28/09

SCALE: 1" = 20'

DRAWING NAME:

PROPERTY TRANSFER DIAGRAM

DRAWING NUMBER:

C1.02

LEGEND

- EXISTING GRADE (2' CONTOUR)
- EXISTING GRADE (10' CONTOUR)
- EXISTING TREELINE/VEGETATION
- EXISTING SHORELINE
- PROPERTY LINE (SUBJECT PROPERTY)
- PROPERTY LINE/RIGHT-OF-WAY
- EXISTING FENCE
- EXISTING ELECTRIC UTILITY
- EXISTING GAS MAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATER MAIN
- EXISTING HYDRANT
- EXISTING MANHOLE
- EXISTING UTILITY/LIGHT POLE
- PROPOSED STORM SEWER
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED SEDIMENT TRAP
- PROPOSED SILT FENCE/DIVERSION BERM
- PROPOSED SPOT ELEVATION (68.60)
- PROPOSED SLOPE (1.0%)

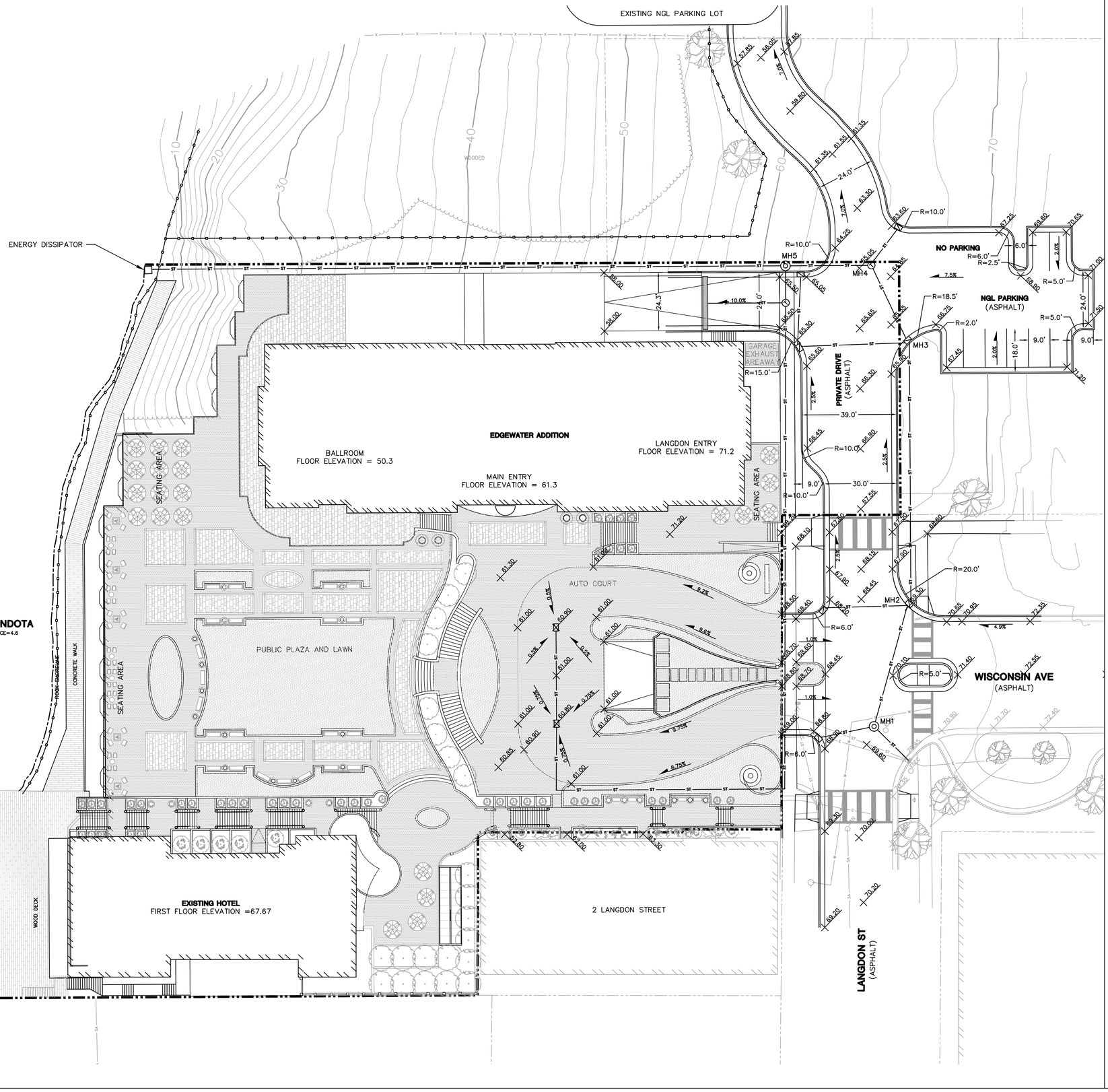
20 0 20

SCALE: 1" = 20'

PROJECT NORTH (45°)

NOTES:

1. SUBJECT PROPERTY LINE AND EXISTING BUILDING LOCATIONS BASED ON ALTA SURVEY PREPARED BY BADGER SURVEYING AND MAPPING SERVICE, JULY 17, 1997.
2. RIGHT-OF-WAY AND OTHER PROPERTY LINES BASED ON DRAWING OBTAINED FROM THE CITY OF MADISON.
3. TOPOGRAPHIC CONTOURS, VEGETATION, AND UTILITY LOCATIONS BASED ON SITE SURVEY PERFORMED BY BT², INC. ON JUNE 30, 2009.
4. PROPOSED SITE FEATURES OBTAINED FROM ELKUS MANFREDI ARCHITECTS.
5. PROPOSED UTILITY LOCATIONS ARE APPROXIMATE.
6. ROOF DRAINS AND PLAZA YARD DRAINS DISCHARGE THROUGH BUILDING PER PLUMBING CONTRACTOR. ROOF DRAINS AND PLAZA YARD DRAINS WILL DISCHARGE TO LAKE MENDOTA.



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1		08/18/09
2		10/28/09

SCALE: 1" = 20'

DRAWING NAME:

GRADING AND EROSION CONTROL PLAN

DRAWING NUMBER:

C1.03

LEGEND

- EXISTING GRADE (2' CONTOUR)
- EXISTING GRADE (10' CONTOUR)
- EXISTING TREELINE/VEGETATION
- EXISTING SHORELINE
- PROPERTY LINE (SUBJECT PROPERTY)
- PROPERTY LINE/RIGHT-OF-WAY
- EXISTING FENCE
- EXISTING ELECTRIC UTILITY
- EXISTING GAS MAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATER MAIN
- EXISTING HYDRANT
- EXISTING MANHOLE
- EXISTING UTILITY/LIGHT POLE
- PROPOSED ELECTRIC UTILITY
- PROPOSED GAS MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED WATER MAIN
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED SEDIMENT TRAP
- PROPOSED SANITARY MANHOLE

MANHOLE	RIM/TC ELEV	INVERT ELEV.
MH1	69.8	55.5
MH2	69.7	54.9
MH3	65.75	53.7
MH4	64.9	53.3
MH5	61.0	52.9

20 0 20

SCALE: 1" = 20'

45°

PROJECT NORTH

NOTES:

1. SUBJECT PROPERTY LINE AND EXISTING BUILDING LOCATIONS BASED ON ALTA SURVEY PREPARED BY BADGER SURVEYING AND MAPPING SERVICE, JULY 17, 1997.
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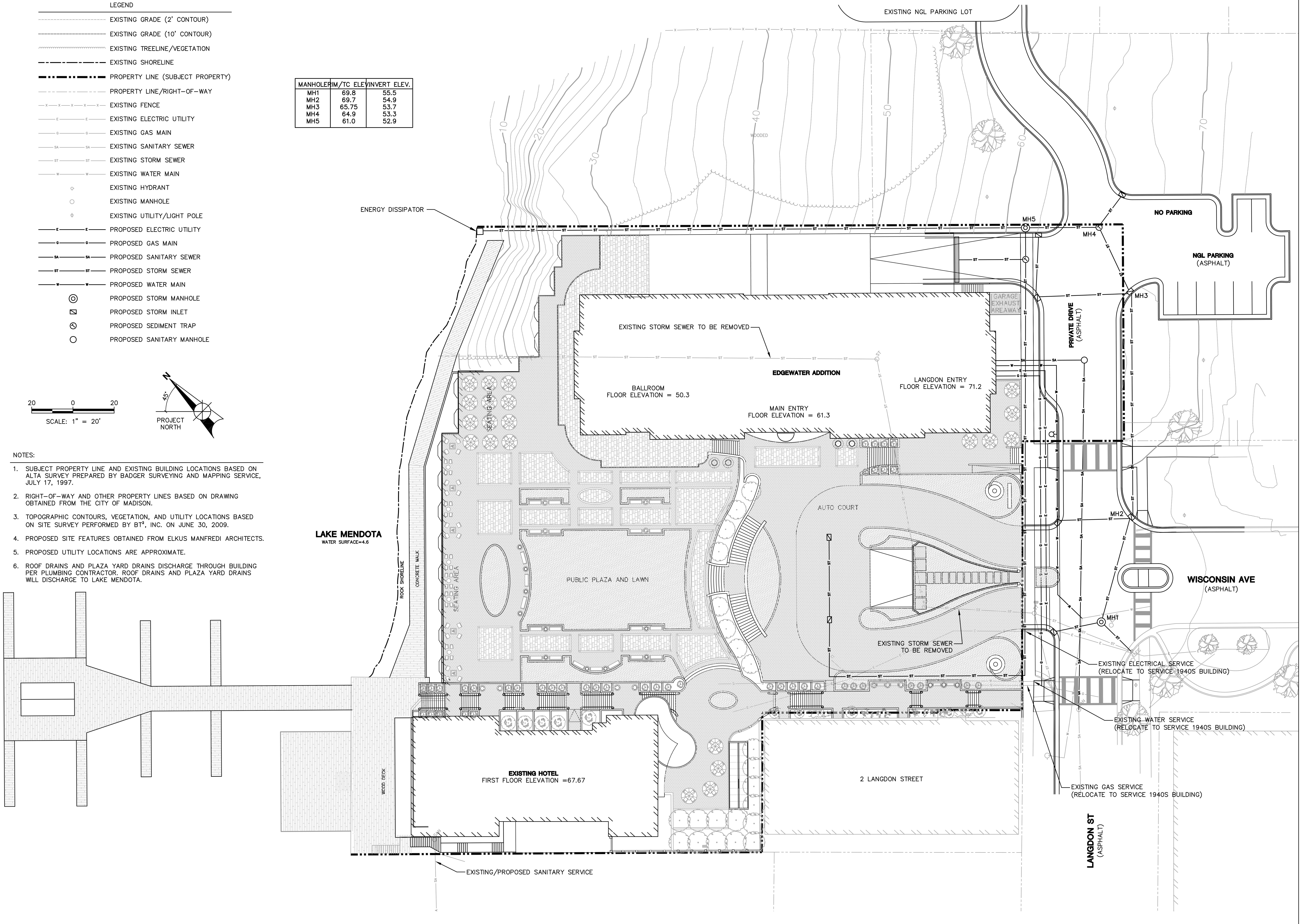

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1	08/18/09
2	10/28/09

SCALE: 1" = 20'

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C1.04