Pinnacle Delaware Riverfront Site
Utility Investigation and Impact Study

Phase I: Utility Investigation and Impact Study

Prepared For:

PINNACLE ENTERTAINMENT, INC.

Prepared By:

PENNONI ASSOCIATES, INC.
Consulting Engineers

March 6, 2006

I. Executive Summary

Pinnacle Entertainment in an effort to acquire a gaming license has an option to purchase approximately 33 acres of Delaware River waterfront property in Philadelphia. Prior to purchase, an investigation into various aspects of the site is necessary to better determine the feasibility of developing a first class gaming and entertainment site. The nature of this study is to review and understand the existing facilities and utilities in order to determine, in a preliminary fashion, the extent of effort necessary to accommodate the proposed development and to determine the ability of existing utilities to provide service.

Depending on the ultimate configuration of the development site plan it may be necessary to consolidate several of the parcels by striking and vacating portions of Dyott Street and Beach Street. From a traffic standpoint, this scenario will have a minimal impact traffic impact since both Dyott Street and Beach Street are low volume local streets. This scenario is also entirely consistent with the current configuration of PENNDOT's Girard Avenue Interchange Project, which seeks to strike and vacate Dyott Street between Delaware Avenue and Beach Street, and also seeks to terminate Beach Street in a cul-de-sac at Dyott Street. Since utilities are typically located in city streets, the removal and/or the relocation of existing utilities in portions of Dyott Street and Beach Street might also be necessary depending on the configuration of the development site plan. Alternatively, it may be possible for some of the existing utilities in Dyott Street and Beach Street or in the exiting utility easements to remain in place depending on the configuration of the development site plan. This initial utility investigation and impact study considers the implications and feasibility of these scenarios.

The investigation indicates that much of the utilities can be taken out of service and removed with minor modifications to existing distribution systems. Projects involving relocation of facilities include storm sewers, sanitary sewer, and electric duct banks. On a preliminary basis, the existing utilities appear to be able to provide service for the proposed development with minor improvements.

II. Introduction and Project Understanding

a.) Pinnacle Entertainment in an effort to acquire a gaming license has opted to purchase approximately 33 acres consisting of several properties of prime Delaware River waterfront property in the Fishtown section of Philadelphia with the goal of developing a first class gaming and entertainment site in Philadelphia.

b.) Collectively, these parcels are known as the "Pinnacle Site".

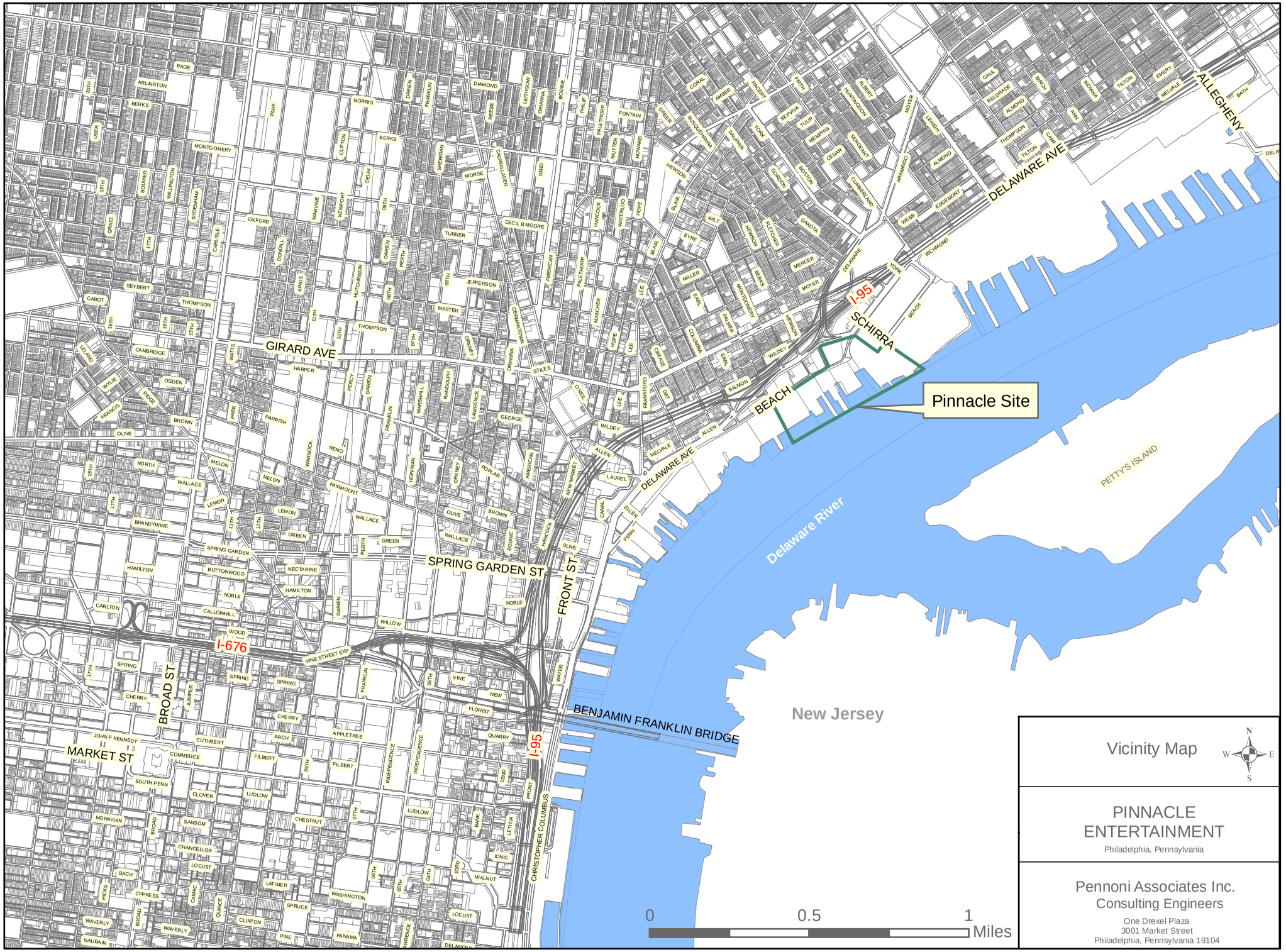
c.) The Pinnacle Site provides easy access to both Center City Philadelphia and I-95 with minimal impact on the adjacent communities. The site is located less than two (2) miles from Center City Philadelphia and is immediately adjacent to I-95. Access to the site from I-95 will be further facilitated by the Pennsylvania Department of Transportation's (PENNDOT's) planned I-95 Girard Avenue Interchange Project (section GIR) that is currently in Final Design. (Additional information concerning PENNDOT's planned I-95 Girard Avenue Interchange Project is available via the project website at www.95revive.com). Generally the residential areas of the Fishtown community are located on the westerly side of I-95 whereas the project site is located on the easterly side of I-95. The Pinnacle Site and its proximity to both Center City Philadelphia and I-95 is shown on the attached Area and Vicinity Maps designated as FIGURES 1 and 2.

d.) It is our understanding that the optioned properties include the following parcels:

Owner / Address	Total Lot Area	Area of Fast Land	Area of Water	Area Between Bulkhead & Pierhead Lines
Dyott Street Corp. 2001 Richmond Street	12.96+/- Acres	11.1+/- Acres	1.86+/- Acres	8.4+/- Acres
Glasgow, Inc. 1701 Beach Street	5.95+/- Acres	3.85+/- Acres	2.1+/- Acres	3.96+/- Acres
Berks Street Corp. 1501 & 1601 Beach Street	11.52+/- Acres	7.68+/- Acres	3.84+/- Acres	7.4+/- Acres
1707-1737 Columbus Boulevard	1.55+/- Acres	0 Acres	0 Acres	0 Acres
1701-1715 Columbus Boulevard	0.83+/- Acres	0 Acres	0 Acres	0 Acres
TOTALS:	**32.81+/- Acres**	**22.63+/- Acres**	**7.8+/- Acres**	**19.76+/- Acres**

Philadelphia, Pennsylvania

Figure 1



Philadelphia, Pennsylvania

Figure 2

These parcels are indicated on the attached annotated aerial photograph designated as FIGURE 3.

e.) The site is located in the City's First Councilman District that is represented by Councilman Frank DiCicco. The portion of the site south of Dyott Street is also located in the City's 18th ward, while the portion of the site north of Dyott Street is located in the City's 31st ward as indicated on the "Bridesburg-Kensington-Richmond" ward map.

f.) Historically, the existing site was utilized for port, warehousing and related uses as indicated on the 19 Sanbourne Map. Remnants of old Pennsylvania Railroad tracks are visible in portions of Dyott and Beach Streets and serve as a testament to the former use. The site is presently located within Industrial Zoning District- G-2, entitled "General Industrial" as indicated on the attached copy of the Philadelphia Zoning Map for the area, last revised January 16, 2004.

Based on the current City of Philadelphia Zoning Code the following is a summary of the zoning parameters for the site:

ZONING PARAMETER	REQUIRED / PERMITTED
Area Regulations:	
Occupied Area (Max.)	100%
Building Setback	None
Front-Side-Rear Yards	None
Height	None
Floor Area	500%
Bulk Regulation	20 x gross floor area
Off Street Loading	Required (per Section 14-1400)
Off Street Parking (8.5' x 18.5' min.)	1 space/ 1000 s.f.
Signs	Permitted (per Section 14-508)

g.) Piers 66, 67, 71 and 72 North are prominent features on the site. These piers generally extend approximately 250 to 500 feet into the Delaware River from the Bulkhead Line to the Pierhead Line. Although the type of construction of these piers is unknown to us at this time, historical record plans for riverfront piers in the City of Philadelphia are generally available through the

DYOTT STREET CORPORATION
2001 RICHMOND STREET

TOTAL LOT AREA TO APPROXIMATE BOUNDARY LINE = 12.96 ACRES +/-
TOTAL AREA OF FAST LAND WITHIN APPROXIMATE BOUNDARY LINE = 11.10 ACRES +/-
TOTAL AREA OF WATER WITHIN APPROXIMATE BOUNDARY LINE = 1.86 ACRES +/-
TOTAL APPOXIMATE AREA BETWEEN PIERHEAD AND BULKHEAD LINES = 8.40 ACRES +/-

#1717-1737
CHRISTOPHER COLUMBUS BOULEVARD

TOTAL LOT AREA TO APPROXIMATE BOUNDARY LINE = 1.55 ACRES +/-

#1701-1715
CHRISTOPHER COLUMBUS BOULEVARD

TOTAL LOT AREA TO APPROXIMATE BOUNDARY LINE = 0.83 ACRES +/-

GLASGOW, INC.
1701 BEACH STREET
PIER 70 NORTH

TOTAL LOT AREA TO APPROXIMATE BOUNDARY LINE = 5.95 ACRES +/-
TOTAL AREA OF FAST LAND WITHIN APPROXIMATE BOUNDARY LINE = 3.85 ACRES +/-
TOTAL AREA OF WATER WITHIN APPROXIMATE BOUNDARY LINE = 2.10 ACRES +/-
TOTAL APPOXIMATE AREA BETWEEN PIERHEAD AND BULKHEAD LINES = 3.96 ACRES +/-

BERKS STREET CORPORATION
1501 & 1601 N. BEACH STREET

TOTAL LOT AREA TO APPROXIMATE BOUNDARY LINE = 11.52 ACRES +/-
TOTAL AREA OF FAST LAND WITHIN APPROXIMATE BOUNDARY LINE = 7.68 ACRES +/-
TOTAL AREA OF WATER WITHIN APPROXIMATE BOUNDARY LINE = 3.84 ACRES +/-
TOTAL APPOXIMATE AREA BETWEEN PIERHEAD AND BULKHEAD LINES = 7.40 ACRES +/-

Delaware River

400 200 0 400 Feet

PINNACLE CASINO
SITE MAP
Philadelphia, Pennsylvania

Pennoni Associates Inc.
Consulting Engineers
One Drexel Plaza
3001 Market Street
Philadelphia, Pennsylvania 19104

Pinnacle Site
Philadelphia, Pennsylvania

Figure 3

Philadelphia Regional Port Authority. The physical condition of the piers is also unknown at this time.

h.) Presently, there are several buildings and structures on the optioned properties that are still in use. These include but are not limited to the following:

ADDRESS	BUILDING NAME	DESCRIPTION	APPROX. SF
1707-1737 Columbus Blvd.	n/a	Flat roof industrial use	55,013 s.f.
1501 & 1601 Beach Street	n/a	Flat roof industrial use	8915 s.f.

In addition, it is important to note that PECO Energy (i.e. Exelon) owns and operates the Delaware Electrical Generating Station on Beach Street between Columbia Avenue and Montgomery Avenue which is immediately to the south of the Pinnacle Site.

i.) According to available topographic information, elevations on the site are approximately +5.00 City Datum while the 100-year flood elevation of the Delaware River in this vicinity is elevation +4.29 City Datum. (Elevation +0.00 City Datum = Elevation +5.71+/- National Geodetic Vertical Datum of 1929).

The site is located on published Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) panel No. 189 of 230, Community Map No. 4207570189 F with an effective date of August 2, 1996. The site is located within the following flood zones:

1. Zone AE with base flood elevations determined.
2. Zone X, defined as areas within the 500-year floodplain or areas within the 100-year floodplain which have less than 1 foot of water or with drainage areas less than one square mile.
3. Zone X, defined as areas determined to be outside if the 500-year floodplain

The floodplain associated with the Delaware River is +10.0 National Geodetic Vertical Datum of 1929 (NGVD29) which equates to +4.29 City Datum (CD). (City of Philadelphia Datum is 5.71 feet less than the published NGVD29 datum.) The existing grade in the project area ranges from approximately 2.0 at the corner of the site to 6.0 along Richmond Street. The site elevations vary by about 3 feet in the east-west direction and about 4 feet in the north-south direction.

j.) The existing site conditions along Dyott Street, Beach Street, Susquehanna Avenue, Berks Street and Delaware Avenue are shown in the attached Photographs numbered 1 through 24.

k.) The purpose of this Utility Relocation Feasibility Report is to determine if the existing utility infrastructure in Dyott Street, Beach Street and Susquehanna Avenue can be relocated in order to consolidate the optioned parcels into a more contiguous property for development purposes. The various utility relocation alternatives are described in Section IV of this report. In addition to confirming the feasibility of relocating the existing utility infrastructure; this report will also identify order of magnitude construction costs for the utility relocation alternatives and will identify limitations to the information as presently understood.

III. Existing Site Utilities

a.) We contacted the Pennsylvania One Call System in February 2006 and requested existing underground utility record plan information for the project area from all involved utilities. Record Plans for the following locations were requested:

LOCATION	WARD	PA ONE CALL SERIAL NO.
Dyott St. from Richmond St. to Beach St.	18	2106779
Beach St. from Dyott St. to Palmer St.	18	2106784
Susquehanna Ave. from Delaware Ave. to Beach St.	18	2106789
Berks Street from Delaware Ave. to Beach St.	18	2106791
Delaware Ave. from Berks St. to Richmond St.	18	2106801
Richmond St. from Delaware Ave. to Dyott St.	18	2106809
Richmond St. from Delaware Ave. to Dyott St.	31	2106810

According to the Pennsylvania One Call System the following utilities maintain underground utility facilities in wards 18 and 31:

1. Philadelphia Water Department
2. Philadelphia Gas Works
3. PECO Energy
4. Verizon
5. Comcast Cable
6. AT & T
7. MCI

8. Philadelphia Streets Department
9. Southeastern Pennsylvania Transportation Authority (SEPTA)

b.) In addition to contacting the Pennsylvania One Call System, we also obtained the Highway Supervisors Plans for the project area from the Philadelphia Department of Streets. These plans are maintained by the Philadelphia Department of Streets and are basically a compilation of the various utility record plans showing the utilities in a given area. Although the Highway Supervisors Plans may not be 100% complete or accurate, since the utility record plans themselves are considered the source documents, the Highway Supervisors Plans generally provide a fairly accurate depiction of the underground utilities in a given street.

c.) The Philadelphia Water Department owns and maintains the potable water distribution system as well as the sanitary and storm-water collection systems in the City of Philadelphia. In addition, the Philadelphia Water Department owns and maintains a high- pressure fire system (HPFS) in certain sections of the city including the Fishtown section where the project is located. Additional information concerning the Philadelphia Water Department is available via their website at www.phila.gov/water. The following is a summary of the Philadelphia Water Department infrastructure within the project area:

1. Water Distribution System: The potable water distribution system in the project area is indicated on the attached Figure, which is a portion of the Philadelphia Water Department Water Plate #40. In addition to the mains themselves, there are numerous fire hydrants, valves and water service connections in the project area as indicated in Figure --. Potable water for the project site is provided from the Department's Baxter Water Treatment which pumps raw water from the Delaware River at a point just north of the Pennypack Creek. The treated water is then pumped from the Lardner's Point Pumping Station and the project is located in what is known as the Lardner's Point Low Pressure service area. The static water pressure in the water distribution system at this location is reportedly about 55 PSI, although no pressure tests have yet been performed for this project. Since the project is located immediately adjacent to the Delaware River and therefore the water mains do not convey potable water to other areas, they can generally be truncated and abandoned without any negative effects to the distribution system. The following table summarizes the existing water mains each of the streets adjacent to the project:

LOCATION	WATER MAIN FACILITIES
Dyott St. from Richmond St. to Beach St.	6" Water Main
Beach St. from Dyott St. to Palmer St.	12" Water Main
Susquehanna Ave. from Delaware Ave. to Beach St.	6" Water Main
Berks Street from Delaware Ave. to Beach St.	6" Water Main
Delaware Ave. from Berks St. to Richmond St.	8" Water Main & 30" Water Main
Richmond St. from Delaware Ave. to Dyott St.	12" Water Main & 30" Water Main

2. Sanitary and Storm-Water Collection System: The Sanitary and Storm-Water Collection System in the project area are indicated on the attached Figure, which is a portion of the Philadelphia Water Department Drainage Plat Nos. 37 and 41. It is noted that in this section of the City, the sanitary sewerage and storm-water runoff are combined in a single piping system, as is common in the older areas of the City. Under normal conditions, intercepting chambers and sewers divert the combined flow to the wastewater treatment plant. However, during severe storm events, there may be a combined sewer overflow into the river via the outfall pipe since the intercepting chambers and sewers cannot accommodate all of the runoff from the larger storms.

   Sanitary sewerage from the project site is treated Department's Southeast plant that is located at Pattison and Delaware Avenues in South Philadelphia. In addition to the sanitary sewers and storm-water conduits themselves, there are numerous inlets, manholes, intercepting chambers and storm-water outfalls in the project area as are indicated on attached Figure. The following table summarizes the existing Sanitary and Storm-Water Collection System facilities each of the streets adjacent to the project:

LOCATION	SANITARY & S.W. FACILITIES
Dyott St. from Richmond St. to the Delaware River	Intercepting Chamber D-38 6' (H) x 14' (W) R.C. S.W. Outfall 20" CI Pipe Sewer
Beach St. from Dyott St. to Palmer St.	18" RCP Sewer 12" TCP Sewer 3'-0" Brick Sewer
Susquehanna Ave. from Delaware Ave. to the Delaware River	Intercepting Chamber D-39 11'-6" (H) x 7'-3"' (W) R.C. S.W. Outfall 36" RCP Sewer
Berks Street from Delaware Ave. to the Delaware River	Intercepting Chamber D-40 4'-0" Brick S.W. Outfall 18" RCP Sewer 4'-6" Brick Sewer
Delaware Ave. from Berks St. to Richmond St.	3' x 2' Brick Sewer 15" VCP Sewer 5'-6" R.C. Intercepting Sewer
Richmond St. from Delaware Ave. to Dyott St.	18" RCP Sewer 36" RCP Intercepting Sewer

3. High Pressure Fire Service System: The High Pressure Fire Service System (HPFS) in the project area is indicated on the attached Figure, which is a portion of the Philadelphia Water Department HPFS Plate Nos. 34 and 40. This system was originally installed in the older industrial and port neighborhoods of the City to provide added fire protection via raw river water that pumped directly out of the Delaware River and distributed by the HPFS. The Philadelphia Water Department has de-commissioned the High Pressure Fire Service and is in the process of abandoning it and removing fire hydrants since it has become a redundant system that is costly to maintain and does not provide revenue for the Department.

d.) The Philadelphia Gas Works (PGW) owns and maintains the natural gas distribution system in the City of Philadelphia. The Philadelphia Gas Works is the largest municipally owned natural gas utility in the country. The gas mains that are owned and maintained by the Philadelphia Gas Works range in size from about 1-1/4" to 36" diameter and the pressure ranges from about 5 PSI to 150 PSI. Additional information concerning the Philadelphia Gas Works is available via their website at www.pgworks.com. Since the project is located immediately adjacent to the Delaware River and therefore the gas mains do not convey natural gas to other areas, they can generally be truncated and abandoned without any negative effects to the distribution system. The following is a summary of the Philadelphia Gas Works infrastructure within the project area:

LOCATION	GAS MAIN FACILITIES
Dyott St. from Richmond St. to Beach St.	None
Beach St. from Dyott St. to Palmer St.	6" Gas Main & 2" Gas Main
Susquehanna Ave. from Delaware Ave. to Beach St.	4" Gas Main
Berks Street from Delaware Ave. to Beach St.	6" Gas Main
Delaware Ave. from Berks St. to Richmond St.	30" Gas Main 8" Gas Main, 6" Gas Main & 2" Gas Main
Richmond St. from Delaware Ave. to Dyott St.	30" Gas Main & 8" Gas Main

e.) The PECO Energy Company (PECO), a division of Exelon Energy Corporation owns and maintains the electrical distribution system in the City of Philadelphia. These facilities include both aerial and underground electrical distribution and transmission infrastructure. Due to the fact that the project is located immediately adjacent to the Delaware Electrical Generating Station on Beach Street, the PECO facilities in the project area generally cannot be truncated and abandoned without any negative effects to the distribution system. The following is a summary of the PECO infrastructure within the project area:

LOCATION	FACILITIES
Dyott St. from Richmond St. to Beach St.	22" x 22" Duct Bank; Aerial facilities.
Beach St. from Dyott St. to Palmer St.	26" x 27" Duct Bank; Aerial facilities.
Susquehanna Ave. from Delaware Ave. to Beach St.	26" x 27" Duct Bank; 17" x 17" Duct Bank; Aerial facilities
Berks Street from Delaware Ave. to Beach St.	No underground or aerial facilities
Delaware Ave. from Berks St. to Richmond St.	(2) 17" x 17" Duct Banks; 16" x 15" Duct Bank; 7" Steel Conduit (66 KV); Aerial facilities
Richmond St. from Delaware Ave. to Dyott St.	(2) 17" x 17" Duct Banks; 16" x 15" Duct Bank; 7" Steel Conduit (66 KV); Aerial facilities

f.) Verizon generally owns and maintains the telephone and communications system in the City of Philadelphia. These facilities include both aerial and underground telephone and communications system infrastructure. Since the project is located immediately adjacent to the Delaware River and therefore the telephone and communications system in this area is not a continuum that provides service to other areas, they can generally be truncated and abandoned without any negative effects to the communications system. The following is a summary of the Verizon infrastructure within the project area:

LOCATION	FACILITIES
Dyott St. from Richmond St. to Beach St.	No underground facilities Aerial facilities possible
Beach St. from Dyott St. to Palmer St.	No underground facilities Aerial facilities possible
Susquehanna Ave. from Delaware Ave. to Beach St.	No underground facilities Aerial facilities possible
Berks Street from Delaware Ave. to Beach St.	9" x 6" Conduit; Aerial facilities possible
Delaware Ave. from Berks St. to Richmond St.	19" x 10" Conduit; Aerial facilities possible
Richmond St. from Delaware Ave. to Dyott St.	13" x 15" Conduit; Aerial facilities possible

g.) Comcast Cable provides cable television and has not yet been identified as either having or not having existing facilities within the area.

h.) Although, AT &T was listed as a possible underground utility in the project area when we originally notified the Pennsylvania One Call System, the subsequent Pennsylvania One Call System notifications that we received indicated that AT &T does not maintain any underground utility facilities in the project area at this time.

i.) MCI was also listed as a possible underground utility in the project area when we originally notified the Pennsylvania One Call System, however the subsequent Pennsylvania One Call System notifications that we received indicated that MCI does not maintain any underground utility facilities in the project area at this time

j.) The Philadelphia Streets Department generally maintains underground and aerial traffic signal and street lighting infrastructure in the City of Philadelphia as well as the surface mounted street lights and traffic signal facilities. Based on our field view of the project site there are no existing traffic signal facilities

in the project area. In addition, it does not appear that there any underground street lighting facilities along Dyott Street, Beach Street, Susquehanna Avenue or Berks Street since the existing street lights for those streets are mounted on PECO poles. However, it does appear as if there are existing City of Philadelphia street lights along Delaware Avenue and Richmond Street probably with associated underground street lighting conduit.

k.) The Southeastern Transportation Authority (SEPTA) is the regional public transportation authority that provides service through light regional rail, subway, bus and trolley transport systems. The Philadelphia Transport Company was a public transportation provider in the city whose existing facilities have been absorbed by SEPTA. Currently, existing Philadelphia Transport Co. 12"x15" ducts are in Delaware Avenue and Richmond Street. SEPTA tracks and a 18"x14" duct bank are in Girard Avenue. The tracks are trolley tracks.

IV. Utility Relocation Approval Process

a.) The relocation of any Philadelphia Water Department facilities requires the approval of the Department. If the facility is located within a city street or Philadelphia Water Department Right-of-Way, the Developer is responsible for the design and construction of the relocated facilities. The Philadelphia Water Department refers to these projects as "Private Cost Contracts". The design of the facilities must be in accordance with Philadelphia Water Department requirement and procedures and the design plans and specifications must be approved by the Department. The general procedure for developing "Private Cost Contracts" is outlined in the attached Philadelphia Water Department publication last revised 11-10-04 that is included in the Appendix.

b.) Once the contract documents are approved, the Developer must enter into a "Developer's Agreement" with the Department. A sample "Developer's Agreement" is included in the Appendix. The construction of the facilities must be performed by a contractor that is prequalified by the Department in accordance with the approved plans and specifications. The work is subject to inspection and approval of the Department.

c.) The relocation of any utility within existing street right-of-way will require the approval of the Philadelphia Department of Streets. If the facility is located within a city street or Right-of-Way, the Developer is responsible for the design and construction of the relocated facilities. The design of the facilities must be in accordance with Philadelphia Streets Department requirements

and procedures, as well as the design requirements and procedures of the respective utility company being relocated. Plans and specifications must be approved by the Department. Also, the Department of Highway Supervisors, a division of the Streets Department must approve the relocation. The Highway Supervisors will review the effect that the relocation will have on other City and utility company facilities in the vicinity. A Highway Occupancy Permit will be issued indicating approval of the new utility location and permitting it to occupy the right-of-way.

V. Storm Drainage

a.) The PWD is responsible for the operation and maintenance of the storm lines in the vicinity of the site. With the exception of the interceptor tunnel in Delaware Avenue, the storm drainage systems in the surrounding streets, and the streets encompassed by the site, are local collection systems that collect and convey storm runoff via catch basin and pipe systems. These local systems then tie into the large storm sewer culverts within Susquehanna Street, Dyott Street, and the smaller pipe culverts in the area of Berks Street, that all discharge to the Delaware River.

b.) It is anticipated that any new development at the site would utilize the existing drainage system to the extent possible. Since we anticipate a change to the on-site grading and impervious area coverage, there could be a significant change in the storm run-off within the project area as a result of this development. The condition and hydraulic capacity of these facilities should be investigated prior to any re-use. We suspect that the existing on-site storm sewer system may not be in optimal operating condition. It has been our experience that the inlets are filled with debris and mud and the current underground systems are usually silt laden and require cleaning and restoration to bring the operations up to an acceptable level. Therefore, the client should plan for new storm sewer inlets and piping within new paved areas, and the possible restoration of existing systems within the areas that are not going to be disturbed.

c.) Any drainage facilities that could not be incorporated into the development plan will need to be abandoned or removed. Any new drainage facilities to be constructed will need to be in accordance with PWD standards.

d.) Based on recent stormwater management requirements implemented by the PWD as of January 2006, it is anticipated that on site stormwater management will be required. Essentially the regulations require that stormwater management be provided in the form of Water Quality, Channel Protection, Flood Control, and Nonstructural Site Design. The Water Quality and Nonstructural requirements

must be met, whereas the other requirements may be exempt. For Water Quality runoff from the site, 1" for all impervious area must be infiltrated into the ground. Due to the proximity of the site to the river, the possible high water table, and the existence of marine bulkhead structures, this requirement may not be able to be met. Also, Flood Control consists basically of stormwater detention which may also not be able to be met because of the proximity of the floodway and floodplain to the site, and since the site is at the end of the drainage area, the direct discharge of stormwater without detention would seem more beneficial to the drainage area as a whole. The PWD will require that measures be proposed to provide for Water Quality and Nonstructural Site Design such as green roof systems, disconnected impervious surface areas, etc. as means of providing for these criteria. Any waiver from the requirements of these criteria would first require review and approval from the PWD in early design meetings.

e.) The existence of two major storm sewer culverts and interceptor chambers in Dyott Street and Susquehanna Avenue that currently traverse the site would need to be addressed as far as relocation to clear the site. The Dyott Street culvert is 6'x14' and the Susquehanna Avenue culvert is 11'-6"x7'-3" and have been constructed on piers due to soil conditions in the proximity of the river. The current design philosophy is to redirect the Susquehanna Avenue culvert to the Dyott Street culvert and reconstruct a combined larger culvert to the river, or redirect the Dyott Street culvert to the Susquehanna Street culvert and reconstruct a combined larger culvert to the river. Interceptor chambers will need to be constructed at the junction of the two culverts regardless of which design scheme is utilized. Refer to the Utility Relocation Plan Options.

VI. Sanitary Sewer Availability

a.) As with the water and storm lines, PWD is responsible for the operation and maintenance of the sanitary sewers. The main sanitary sewer in the vicinity is the Delaware Collector located in Delaware Avenue which may have the capacity to receive the flows generated from the proposed site. Local sanitary sewers are within the roadways anticipated to be removed, and are anticipated to be removed also since they were to only provide service to uses no longer on the properties. Minor relocation of small diameter sewers may be necessary depending on the extent of proposed improvements.

b.) Flows from the proposed use would need to be calculated to better determine the size of conveyance system necessary to convey the sanitary flows from the proposed site.

c.) It is anticipated that any new development at the site would utilize the existing sanitary sewer system to the extent possible. The condition and hydraulic capacity of these facilities should be investigated prior to any re-use. Any sewerage facilities that can not be incorporated into the development plan will need to be abandoned or removed. Any new sanitary sewer facilities to be constructed will need to be in accordance with PWD standards.

d.) An Act 537 Sanitary Sewer Planning Module must be completed for the proposed development. This information is required so that the municipality can determine if adequate conveyance and treatment facilities and capacity exists for the proposed sanitary sewerage flows. The PWD requires the completion of a Pennsylvania Act 537 sewage planning module exemption for developments generating under 65,000 gallons per day. It is anticipated that this development will qualify for a request for an exemption.

e.) In addition an Industrial Waste Discharge Permit will be required by the PWD for the proposed use.

VII. Water Service Availability

a.) The current water service provider is the PWD. Currently a distribution system of 6" and 12" water main are in the roadways intended to be removed. These services were intended only to provide local service to the uses that would have occupied the site, so removal of these lines can be accomplished with little effect to the overall distribution system. The existing 12" water main extending north along Beach Street may be considered as a possible feed for the proposed site, or the existing 30" or 12" in Delaware Avenue.

b.) At this time, the functionality of this system has not been confirmed through fire hydrant flow tests. The available flow available would need to be confirmed with PWD prior to determining a source for both the domestic water and fire feeds to the site. Also, the system demands incurred by the site would need to be estimated to help in that determination.

VIII. Gas Service Availability

a.) The current provider at the site is Philadelphia Gas Works (PGW).

b.) Presently, PGW maintains a 30" steel natural gas main in Richmond Street immediately adjacent to the site as indicated on the attached print. The main is located approximately along the far side of the Richmond Street and has

approximately 3 to 4 feet of cover. In fact, records indicate that gas service from this main was once provided directly to the site. Smaller diameter gas mains exist in the road system throughout the site and can be removed from the distribution system without impacting the existing system.

c.) Presently, when determining reimbursable costs to provide service to a new development, PGW compares the initial construction cost to provide the service against the projected revenue based on the anticipated gas load (i.e. usage) in accordance with Rule 10. The initial cost to the developer to provide the gas service is then determined based on a pre-established formula. If the pressure of the gas service will need to be reduced to approximately 5psi, then flow through a new pressure regulation station will be necessary.

IX. Electric Service Availability

a.) PECO Energy is the provider of electricity in the project vicinity. An existing duct bank traverses the site along Beach Street which would require relocation. The path would most likely be from Beach Street along Susquehanna to Delaware Avenue, then along Delaware Avenue to Richmond Street and Dyott Street. The anticipated size of the duct, based on existing duct size indicates that a possible 26”x27” electric duct would be necessary.

b.) Service to the site may be from this distribution duct. Service commitments and point of service availability would need to be determined based on meetings with PECO Energy. Currently, these meetings have not occurred.

X. Telephone Service Availability

a.) The current provider at the site is Verizon Communications. Verizon has not been approached to determine service availability. Ducts for local service area present in Berks Street, Delaware Avenue, and Richmond Street; however, the size and ability to service the site are yet unknown and require further investigation with Verizon to determine their availability to service the site.

XI. Limitations and Conditions

a.) No on-site geotechnical field tests or investigations have been conducted at this time. Therefore, based on our past experience on nearby sites and available historical record information, we have made assumptions relative to the foundation support systems for the various utilities, particularly the Philadelphia

Water Department's storm-water culverts. The following is a summary of the anticipated geotechnical characteristics of the site based on our past experience on nearby sites and available historical record information:

b.) The site is located immediately adjacent to the Delaware River. As such, below any fill materials that may have been placed, there is an alluvial soil layer that consists of fine sand, silt, clay and organic matter. The physical properties of this layer make it highly compressible when loads are applied. Deposits of compact sands and gravels generally underlie the alluvial soil layer. It is anticipated that groundwater throughout the site will generally be encountered at relatively shallow depths ranging from 2 to 12 feet below the ground surface. The groundwater levels will fluctuate with the tidal influence of the adjacent Delaware River.

c.) At this time an Absence/Presence Determination of Wetlands has not yet been performed for this site.

d.) At this time we have not had access to any environmental reports or studies that may have been performed for the various parcels that comprise the Pinnacle Site.

e.) As previously indicated, the type of construction and the physical condition of the on-site piers is unknown at this time.

f.) At this time, we have not yet convened a meeting with PECO Energy to review and discuss the specific requirements for the relocation of their infrastructure.

MOYER
FLORA
HEWSON
WILDEY
EXP
WILT
EYRE
EYRE
HARPER FLETCHER
SUSQUEHANNA
DELAWARE
DELAWARE
BERKS
ALLEN
MORSE
BEACH
RICHMOND
SCHIRRA
DYOTT
PIER 71N
PIER 67N
PIER 66N
BULKHEAD
PIERHEAD
PINNACLE
SITE
DELAWARE RIVER

SCALE
200 0 200

DATE	NO.	REVISIONS	BY	APPR.

PINNACLE CASINO SITE
PHILADELPHIA, PA

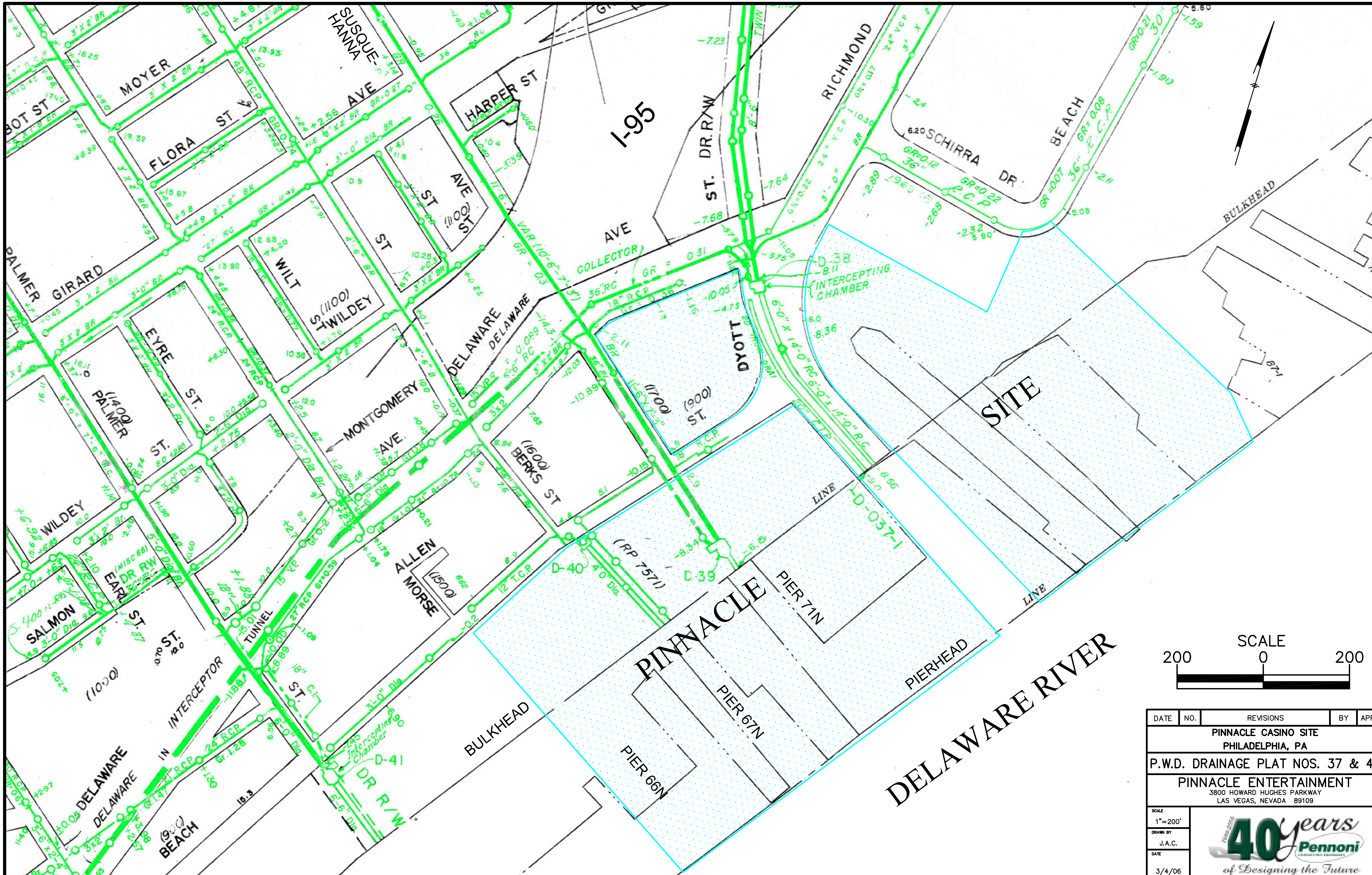
P.W.D. WATER PLAT NOS. 40

PINNACLE ENTERTAINMENT
3800 HOWARD HUGHES PARKWAY
LAS VEGAS, NEVADA 89109

SCALE 1"=200'
DRAWN BY J.A.C.
DATE 3/4/06

40 years Pennoni of Designing the Future

P:\PROJECTS\PINN\0601\UTILITY FIGURES\WATERPLAT.DWG



DATE	NO.	REVISIONS	BY	APPR.

PINNACLE CASINO SITE
PHILADELPHIA, PA

P.W.D. DRAINAGE PLAT NOS. 37 & 43

PINNACLE ENTERTAINMENT
3800 HOWARD HUGHES PARKWAY
LAS VEGAS, NEVADA 89109

SCALE 1"=200'
DRAWN BY J.A.C.
DATE 3/4/06

40 Years Pennoni
of Designing the Future

P:\PROJECTS\PINN\0601\UTILITY FIGURES\SEWERPLAT37&43.DWG

(2) 8'6" SEWER

INV. -7.52

EXISTING INTERCEPTING CHAMBER (D-38)

INV. -8.18

PROPOSED 11'-6"X7'-3" SEWER

ABANDON 14'X8'-6" SEWER

0.00078 FT/FT

INV. -8.56

INV. -6.88

0.00030 FT/FT

INV. -9.0

REMOVE ELEC. MH.

PROPOSED 36" SEWER

CAP 6" WATER

DISPOSITION UNKNOWN

20" SEWER

6" WATER

C

C

D

D

PROP. 78' ROW

PROPOSED 26"X27" ELECTRIC

PROPOSED 11'-6"X7'-3" SEWER

PROPOSED RIGHT-OF-WAY

DELAWARE AVE

DELAWARE RIVER

ABANDON ELECTRIC

ABANDON 18" SEWER

ABANDON 6" WATER

BEACH ST

BULKHEAD LINE

CAP 6" WATER

INV. -4.36

PROPOSED 36" SEWER

INV. -4.08

ABANDON TELEPHONE

ABANDON INTERCEPTING CHAMBER (D-39)

INV. -12.03

SUSQUEHANNA AVE

INV. -6.15

ABANDON 36" SEWER

ABANDON ELECTRIC

ABANDON 6" WATER

ABANDON 11'6"X7'-3" SEWER

36" SEWER

PROPOSED INTERCEPTING CHAMBER

CAP 6" WATER

PROPOSED 26"X27" ELECTRIC (FROM BERKS ST.)

TO DELAWARE AVE

TO RICHMOND ST

SCALE

30 0 30

NOTES

1. ELEVATIONS ARE BASED ON CITY OF PHILADELPHIA DATUM.
2. DELAWARE RIVER:
   *100-YR FLOOD ELEV. +4.20
   *MHW -2.25
   *MLW -8.50
   * △ = 6.25
3. UTILITY LOCATIONS BASED ON CITY PLANS ONLY (PA ONE CALL HAS NOT BEEN COMPLETED). UTILITY INFORMATION IN THE FIELD MAY VARY FROM WHAT IS SHOWN ON THIS PLAN.

DATE	NO.	REVISIONS	BY	APPR.

PINNACLE CASINO SITE
PHILADELPHIA, PA

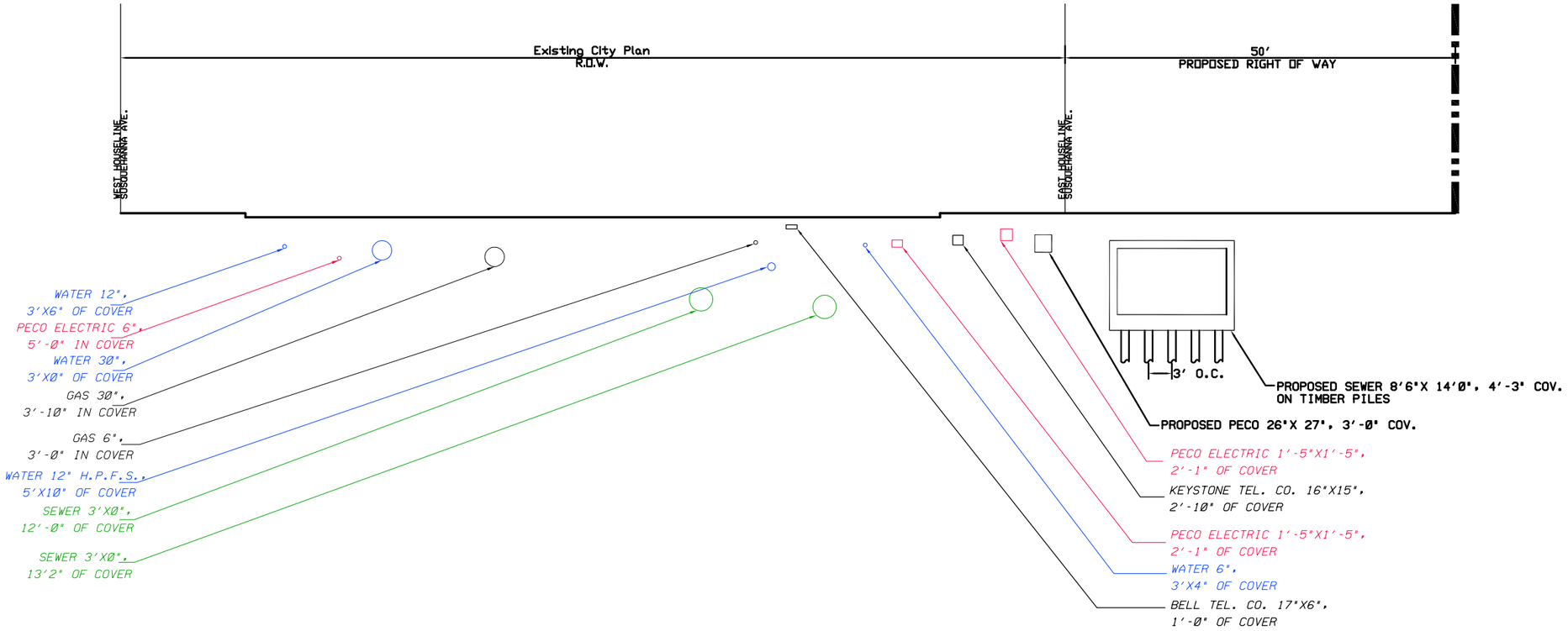
UTILITY RELOCATION PLAN – OPTION 2

PINNACLE ENTERTAINMENT
3800 HOWARD HUGHES PARKWAY
LAS VEGAS, NEVADA 89109

SCALE 1"=30'
DRAWN BY DG
DATE 3/3/06

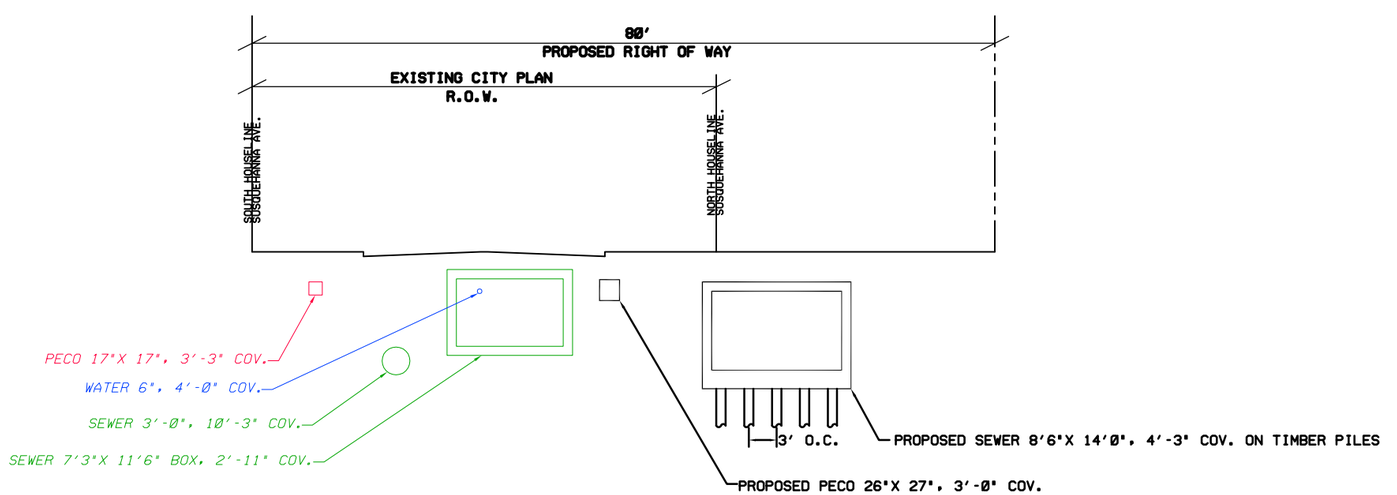
Pennoni 40 years of Designing the Future

P:\PROJECTS\PINN\0601\UTILITY FIGURES\SEWER-OPTION2.DWG



SECTION B-B - DELAWARE AVE.

SCALE: N.T.S.



SECTION A-A - SUSQUEHANNA AVE.

SCALE: N.T.S.

DATE	NO.	REVISIONS	BY	APPR.

PINNACLE CASINO SITE
PHILADELPHIA, PA

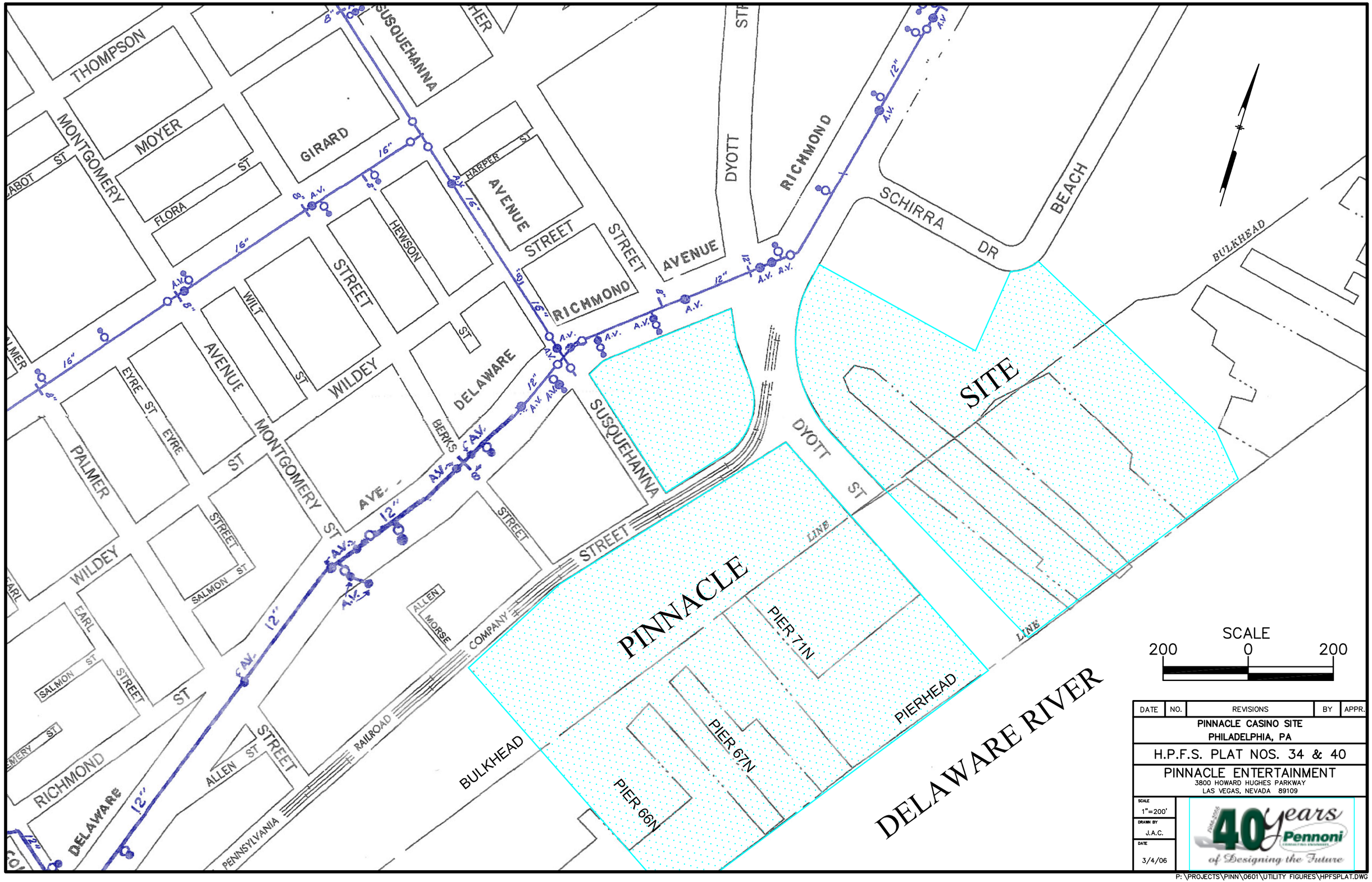
TYPICAL SECTIONS – OPTION 1

PINNACLE ENTERTAINMENT
3800 HOWARD HUGHES PARKWAY
LAS VEGAS, NEVADA 89109

SCALE	DRAWN BY	DATE
N.T.S.	DG	3/3/06

Pennoni 40 years of Designing the Future

P:\PROJECTS\PINN\0601\UTILITY FIGURES\TYP-SEC-OPTION1.DWG



DATE	NO.	REVISIONS	BY	APPR.

PINNACLE CASINO SITE
PHILADELPHIA, PA

H.P.F.S. PLAT NOS. 34 & 40

PINNACLE ENTERTAINMENT
3800 HOWARD HUGHES PARKWAY
LAS VEGAS, NEVADA 89109

SCALE	1"=200'
DRAWN BY	J.A.C.
DATE	3/4/06

40 years Pennoni — of Designing the Future

P:\PROJECTS\PINN\0601\UTILITY FIGURES\HPFSPLAT.DWG

(2) 8'6" SEWER

INV. -7.96

ABANDON 14'X8'-6" SEWER

ABANDON INTERCEPTING CHAMBER (D-38)

INV. -8.18

PROPOSED INTERCEPTING CHAMBER

PROPOSED 36" SEWER

PROP. 50' ROW

PROPOSED 26"X27" ELECTRIC

PROPOSED 14'X8'6" SEWER

PROPOSED RIGHT-OF-WAY

ABANDON 14'X8'-6" SEWER

0.00078 FT/FT

INV. -8.56

INV. -9.0

DISPOSITION UNKNOWN

ABANDON 20" SEWER

ABANDON 6" WATER

ABANDON ELECTRIC

ABANDON 18" SEWER

ABANDON 6" WATER

PROP. 80' ROW

PROPOSED 14'X8'6" SEWER (1060 L.F.±)

INTERCEPTING CHAMBER (D-39)

0.00078 FT/FT

INV. -8.74

INV. -6.15

11'6"X7'-3" SEWER

36" SEWER

DELAWARE RIVER

BULKHEAD LINE

DELAWARE AVE

BEACH ST

RICHMOND ST

SUSQUEHANNA AVE

SCALE
30 0 30

NOTES

1. ELEVATIONS ARE BASED ON CITY OF PHILADELPHIA DATUM.
2. DELAWARE RIVER:
   *100-YR FLOOD ELEV. +4.20
   *MHW -2.25
   *MLW -8.50
   * △ = 6.25
3. UTILITY LOCATIONS BASED ON CITY PLANS ONLY (PA ONE CALL HAS NOT BEEN COMPLETED). UTILITY INFORMATION IN THE FIELD MAY VARY FROM WHAT IS SHOWN ON THIS PLAN.

DATE	NO.	REVISIONS	BY	APPR.

PINNACLE CASINO SITE
PHILADELPHIA, PA

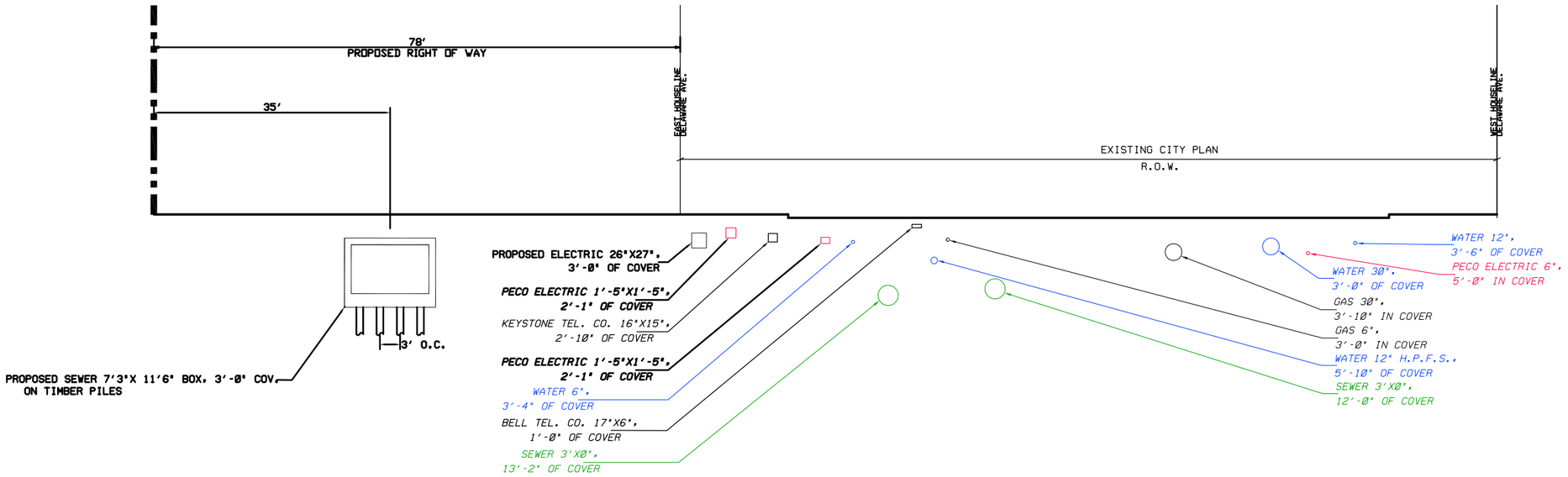
UTILITY RELOCATION PLAN – OPTION 1

PINNACLE ENTERTAINMENT
3800 HOWARD HUGHES PARKWAY
LAS VEGAS, NEVADA 89109

SCALE 1"=30'
DRAWN BY DG
DATE 3/3/06

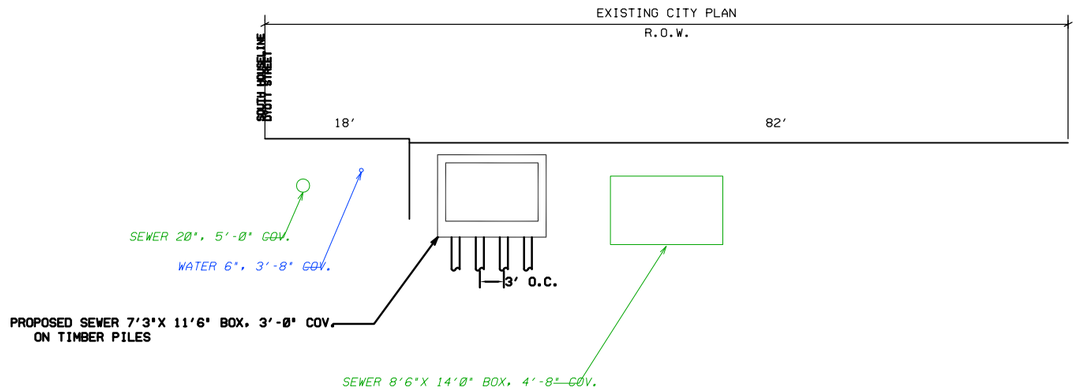
Pennoni 40 years of Designing the Future

P:\PROJECTS\PINN\0601\UTILITY FIGURES\SEWER-OPTION1.DWG



SECTION D-D - DELAWARE AVE.

SCALE: N.T.S.



SECTION C-C - DYOTT ST.

SCALE: N.T.S.

DATE	NO.	REVISIONS	BY	APPR.

PINNACLE CASINO SITE
PHILADELPHIA, PA

TYPICAL SECTIONS – OPTION 2

PINNACLE ENTERTAINMENT
3800 HOWARD HUGHES PARKWAY
LAS VEGAS, NEVADA 89109

SCALE	N.T.S.
DRAWN BY	DG
DATE	3/3/06

Pennoni 40 years of Designing the Future

P:\PROJECTS\PINN\0601\UTILITY FIGURES\TYP-SEC-OPTION2.DWG

ERA
Economics Research Associates

Memorandum of Findings

Date: March 6, 2006

To: Alex Stolyer, Pinnacle Entertainment

From: Tom Martens, ERA

RE: Preliminary Fiscal and Economic Impact Findings

CC: Jon Landers, ERA **ERA No.** 16461

Overview

ERA has completed our preliminary fiscal and economic impact analysis of Pinnacle Entertainment's proposed gaming facility in Philadelphia, Pennsylvania. The analysis is based on a gaming facility with annual gaming revenues of $380 million, and food & beverage revenues of $30 million. The analysis includes a proposed twelve-screen cinema. Additionally, we have estimated the number of Center City hotel rooms that could be supported by the gaming facility's visitors and the resulting fiscal and economic impacts.

The fiscal and economic impacts are divided into one-time construction-related impacts and on-going impacts from operations. Our operational impacts are based on the permanent casino, but are expressed in constant 2006 dollars. Additionally, the economic impacts are identified as the direct on-site generated employment and earnings, as well as the overall economic impact for the State of Pennsylvania.

Fiscal Impacts

The estimated fiscal impacts for both the City of Philadelphia and the State of Pennsylvania are significant, with the gaming tax providing the greatest single source of revenue.

Construction costs of an estimated $200 million dollars will generate significant one-time fiscal impacts. Fiscal impacts from construction are estimated to $4.2 million locally for the City/County of Philadelphia and $7.0 million for the State of Pennsylvania. These impacts result from both sales taxes on construction materials and wage and income taxes from construction employment, and are in addition to the $50 million gaming license fee.

On-going fiscal impacts from operations are significantly higher than the one-time fiscal impacts due largely to the gaming tax revenue of approximately $209 million annually. ERA has assigned most of this revenue to the state, with the exception of the $15.2 million Local Assessment proportion, which has been included with the local fiscal impact.

Additional taxes are generated by the casino operations from taxes of $3.5 million on estimated annual food & beverages sales of $30 million, in addition to annual income and wage taxes of $1.8 million, as detailed in Appendix Table A-2 – Casino Impacts Summary.

The proposed cinema is estimated to generate an additional $1.0 million annually in tax revenue from taxes on admissions and concessions, as well as income and wage taxes, as detailed in Appendix Table A3 – Cinema Impacts Summary.

The proposed gaming facility is anticipated to generate increased room demand for Center City hotel rooms, producing additional hotel tax revenue of $900,000 for each the City and the State, based on the conservative assumption that three percent of the visitors to the gaming facility will stay overnight. The hotel impacts calculations are shown in Appendix Table A4 – Center City Hotel Impacts Summary.

The following table summarizes each of the estimated principle fiscal impacts for the City and State, both one-time and on-going.

ERA

Fiscal Impact Summary

One-Time Construction Impacts

Local Sales Tax on Construction Materials	$	840,000
Local Resident Wage Tax on Construction Labor	$	2,771,840
Local Non-Resident Wage Tax on Construction Labor	$	611,200
Total Local Construction Related Tax Revenue	**$**	**4,223,040**
State Sales Tax on Construction Materials	$	5,040,000
State Income Tax on Construction Labor	$	1,964,800
Total State Construction Related Tax Revenue	**$**	**7,004,800**

On-Going Impacts from Operations

Casino		
Gaming Tax		
Property Tax Relief	$	129,200,000
Local Assessment	$	15,200,000
Economic Development Fund	$	19,000,000
Horsemen Association	$	45,600,000
Local Tax on Food & Beverage	$	1,380,000
Local Tax on Wages	$	1,057,135
State Tax on Food & Beverage	$	2,160,000
State Tax on Personal Income	$	758,290
Cinema		
Local Taxes on Admissions and Concessions	$	320,212
Local Tax on Wages	$	89,364
State Taxes on Admissions and Concessions	$	533,686
State Tax on Personal Income	$	64,102
Center City Hotels		
Local Hotel Tax	$	899,640
Local Tax on Wages	$	248,542
State Hotel Tax	$	899,640
State Tax on Personal Income	$	178,281

TOTAL ON-GOING LOCAL TAX GENERATION	**$**	**19,194,894**
TOTAL ON-GOING STATE TAX GENERATION	**$**	**198,393,999**

Note: Estimates are in 2006 dollars.

Source: Economics Research Associates, 2006.

Economic Impacts

The economic impacts are also divided into one-time employment and earnings impacts from construction and on-going employment and earnings from operations. Additionally, The findings identify the direct impacts from on-site activity (including hotel room stays directly attributable to the gaming facility), as well the overall state-wide economic impact by applying Bureau of Economic Analysis RIMS II multipliers for the State of Pennsylvania.

The construction of the $200 million facility is estimated to directly result in 1,200 person-year jobs with earnings of $64.0 million. The statewide impact of this spending as it re-circulates through the regional economy is estimated to be 5,000 jobs generating $203.6 million in earnings.

Once the permanent facility is fully operational, ERA estimates it will directly result in nearly 1,700 jobs, either on-site or in Center City hotels, with earnings of $32.6 million. The overall regional economic impact, based on Pennsylvania multipliers, is over 2,600 jobs, generating $66.0 million in earnings.

The economic impacts are summarized in the following table.

Economic Impact Summary

One-Time Construction Impacts

Direct On-site Local Employment		1,200
Earnings from Direct Local Employment	$	64,000,000
Total PA Employment Generated		5,000
Total PA Earnings Generated	$	203,590,000

On-Going Impacts from Operations

Casino

Direct On-site Local Employment		1,300
Earnings from Direct Local Employment	$	24,700,000
Total PA Employment Generated		2,039
Total PA Earnings Generated	$	50,012,560

Cinema

Direct On-site Local Employment		120
Earnings from Direct Local Employment	$	2,088,000
Total PA Employment Generated		188
Total PA Earnings Generated	$	4,227,782

Center City Hotels

Direct Local Employment		244
Earnings from Direct Local Employment	$	5,807,200
Total PA Employment Generated		383
Total PA Earnings Generated	$	11,758,419

TOTAL DIRECT LOCAL EMPLOYMENT		**1,664**
TOTAL EARNINGS FROM DIRECT EMPLOYMENT	**$**	**32,595,200**
TOTAL PENNSYLVANIA EMPLOYMENT GENERATED		**2,610**
TOTAL PENNSYLVANIA EARNINGS GENERATED	**$**	**65,998,761**

Source: Economics Research Associates, 2006.

Key Assumptions and Methodology

General Assumptions

The analysis is based on the assumption of a $200 million casino (hard and soft construction costs) with annual gaming revenues of $380 million and food & beverage revenues of $30 million, once the permanent facility is completed. (All dollar amounts are presented in constant 2006 dollars.) The gaming facility is anticipated to attract 6.8 million visitors annually and employ 1,300 employees.

The proposed development also includes a twelve to fourteen screen cinema, which we have modeled as twelve screens. While the site itself will not include any hotel accommodations, it is anticipated that Center City hotels will benefit from a small percentage (three percent) of visitors that will stay overnight in the area.

Tax Rates

The tax rates included in the calculation of fiscal impacts include:

Local

- Local Sales Tax of 1.0% on locally-sourced construction materials, food and non-alcoholic beverages served at the gaming facility, concessions at the cinema
- Local Amusement Tax of 5.0% on admissions to the cinema
- Local Hotel Tax of 7.0% on increased Center City hotel roomnight stays
- Local Alcoholic Beverage Tax of 10.0% on all projected alcoholic beverage sales
- Local Resident Wage Tax of 4.331% to estimated share of local employment; Local Non-Resident Wage Tax of 3.820% applied to all remaining employment

State

- State Sales Tax of 6.0% on locally-sourced construction materials, food and non-alcoholic beverages served at the gaming facility, admissions to and concessions at the cinema
- State Hotel Tax of 7.0% on increased Center City hotel roomnight stays
- State Alcoholic Beverage Tax of 18.0% applied to only half of the projected alcoholic beverage sales to exclude malt beverages
- State Income Tax of 3.07% applied to all operational employment and partial construction employment earnings

In addition, Gaming Tax of 55% was applied to total projected gaming revenue, with the 4.0% Local Assessment accruing to the City, with the rest accruing to the State, as shown in Appendix A2 – Casino Impacts Summary.

Wages and Salaries

Wages and salaries were based on data retrieved from the Pennsylvania Department of Labor and Industry's website. The actual positions that were pulled from the website and used in this analysis are noted in the appropriate tables in the Appendix.

Multipliers

The economic multipliers used to determine the overall impact on the Pennsylvania economy are from the hard copy handbook for Bureau of Economic Analysis RIMS II tables, from 1992. The Final Effect multipliers were applied only to the construction impacts, since it is considered Basic employment that has a direct impact on overall output of a region. The Final Effect employment generation factor is the number of jobs supported by $1 million in total output in 1989 and was therefore reduced by 3.0% annually for 17 years. The construction multipliers were applied only to the estimated hard costs of construction, including both labor and materials, but not to soft costs, such as architects, since these would be accounted for in the calculation of overall output.

For the on-going operations, the Direct Effect multipliers were used to determine the impact on jobs and earnings, given the difficulty of determining the retail margins for every sector that would supply on-going operations. These multipliers are applied to current projected earnings and current projected employment, therefore no time adjustment is required. The Direct Effect multipliers for the on-going operations are those for Hotels, Lodging Places and Amusements.

ERA

Appendix

Appendix Table A-1
Construction Impacts
In Constant 2006 Dollars

	Unit Cost	Number	Construction Cost	Labor Cost at 40%	Local Share of Labor at 80%	Materials Cost at 60%	Local Share of Materials at 70%	Total Locally Captured Construction Output	Hard Costs at 66%	*RIMS II Construction Multipliers* Output	Earnings	Employ-ment	*Final Demand Impacts* Output	Earnings	Employ-ment (2)
Casino Total Construction Costs	$ 200,000,000	1	$ 200,000,000	$ 80,000,000	$ 64,000,000	$ 120,000,000	$ 84,000,000	$ 148,000,000	$ 97,680,000	2.5972	0.8025	33.3	$ 253,694,496	$ 203,589,833	5,034
TOTAL			**$ 200,000,000**	**$ 80,000,000**	**$ 64,000,000**	**$ 120,000,000**	**$ 84,000,000**	**$ 148,000,000**					**$ 253,694,496**	**$ 203,589,833**	**5,034**
Local Sales Tax on Construction Materials @		1%					**$ 840,000**								
State Sales Tax on Construction Materials @		6%					**$ 5,040,000**								
Local Resident Wage Tax on Construction Labor @		4.331%			**$ 2,771,840**										
Local Non-Resident Wage Tax on Construction Labor @		3.820%			**$ 611,200**										
State Income Tax on Construction Labor @		3.07%			**$ 1,964,800**										

Direct Employment Generation

Casino Development

	Overall Project	Local Share
Total Construction/A&E Labor	$ 80,000,000	$ 64,000,000
Architect	$ 58,000	
Carpenter	$ 50,000	
Average Annual Construction Wage (1)	$ 52,666	$ 52,666
Person Year Construction Jobs	**1,500**	**1,200**

(1) Weighted one-third architect as proxy for soft costs, two-thirds carpenter for hard costs; Medians for Philadelphia County from Pennsylvania Department of Labor and Industry.
(2) Based on a final demand adjusted downward at 3% annually from 1989.

Source: Pennsylvania Department of Labor and Industry; Bureau of Economic Analysis; Economics Research Associates, 2006.

Appendix Table A-2
Casino Impacts Summary

Gaming Revenue	**$**	**380,000,000**	
Gaming Tax			
State Gaming Fund/Property Tax Relief	$	129,200,000	34%
Local Assessment	$	15,200,000	4%
Economic Development Fund	$	19,000,000	5%
Horsemen Association	$	45,600,000	12%
Total Gaming Tax	**$**	**205,200,000**	

Food & Beverage Revenue	**$**	**30,000,000**
Percent Alcoholic Beverages		**40%**
Food Spending	$	18,000,000
Alcoholic Beverage Spending	$	12,000,000
Local Sales Tax on Food		1%
Local Liquor Tax		10%
State Sales Tax on Food		6%
State Liquor Tax		18%
Est. % Alcoholic Bev subject to Liquor Tax		50%
Total Local Taxes on Food & Beverage	**$**	**1,380,000**
Total State Taxes on Food & Beverage	**$**	**2,160,000**

Full-Time Equivalent Employees		**1,300**
Average Salary (1)	$	19,000
Annual Salaries and Wages	**$**	**24,700,000**
Estimated Percent Local		90%
Local Resident Wage Tax at 4.331%	**$**	**962,781**
Local Non-Resident Wage Tax at 3.820%	**$**	**94,354**
State Income Tax at 3.07%	**$**	**758,290**

RIMS II Multipliers for Hotels, Lodging Places and Amusements		
Direct-Effect		
Earnings		2.0248
Employment		1.5685
Direct and Induced Earnings	$	50,012,560
Direct and Induced Employment		2,039

(1) Gaming Workers,Other for PA, from PA Dept of Labor and Industry

Source: Pinnacle Entertainment, Economics Research Associates, 2006.

Appendix Table A-3
Cinema Impacts Summary

Number of Screens		12
Shows per Day		4
Average Occupancy		15%
Average Seats per Screen		275
Average Ticket Price		$8.00
Total Admissions Revenue	**$**	**5,781,600**
Concessions/Other as Percent of Total Revenue		35%
Concessions Revenue	**$**	**3,113,169**
Total Revenue	**$**	**8,894,769**
Local Amusement Tax Rate on Admissions		5%
State Sales Tax on Admissions		6%
Local Sales Tax Rate on Concessions		1.0%
State Sales Tax Rate on Concessions		6.0%
Local Taxes from Admissions and Concessions	**$**	**320,212**
State Taxes from Admissions and Concessions	**$**	**533,686**
Employees per Screen		10
Total Employees		120
Average Annual Salary (1)	$	17,400
Total Earnings	$	2,088,000
Estimated Percent Local		90%
Local Resident Wage Tax at 4.331%	**$**	**81,388**
Local Non-Resident Wage Tax at 3.820%	**$**	**7,976**
State Income Tax at 3.07%	**$**	**64,102**
RIMS II Multipliers for Hotels, Lodging Places and Amusements		
Direct-Effect		
Earnings		2.0248
Employment		1.5685
Direct and Induced Earnings	$	4,227,782
Direct and Induced Employment		188

(1) Ushers and Ticket Takers for PA, from PA Dept of Labor and Industry

Source: Economics Research Associates, 2006.

Appendix Table A-4
Center City Hotel Impacts Summary

Casino Visitors per Year		6,800,000
Percent Overnight Visitors		3%
Number of Overnight Visitors		204,000
Visitors per Room		1.5
Total Roomnights Generated		136,000
Percent Staying in Center City		70%
Center City Roomnights Generated		95,200
Average Room Rate	$	135
Rooms Supported @ 70% Occupancy		373
Gross Annual Revenue	**$**	**12,852,000**
Local Hotel Tax at 7% of Gross Room Revenue	**$**	**899,640**
State Hotel Tax at 7% of Gross Room Revenue	**$**	**899,640**
FTE Employment		244
Average Annual Wage	$	23,800
Total Earnings	$	5,807,200
Estimated Percent Local		90%
Local Resident Wage Tax at 4.331%	**$**	**226,359**
Local Non-Resident Wage Tax at 3.820%	**$**	**22,184**
State Income Tax at 3.07%	**$**	**178,281**
RIMS II Multipliers for Hotels, Lodging Places and Amusements		
Direct-Effect		
Earnings		2.0248
Employment		1.5685
Direct and Induced Earnings	$	11,758,419
Direct and Induced Employment		383

Source: Economics Research Associates, 2006.

Appendix Table A-5
Representative Hotel Staffing Plan

Staffing for 373 Rooms Job Category	# of FTE Jobs	Jobs per Rm	Occupation Used	Salary Average	Total Salaries (At Average)
Sr. Management	2	0.005	Lodging Managers Experienced	$ 47,800	$96,000
Mid Management	14	0.035	Lodging Managers Median	$ 35,300	494,000
Entry Management	12	0.030	Lodging Managers Entry Level	$ 21,900	263,000
Rooms & Related Workers	53	0.140	Maids and Housekeepers	$ 17,400	922,000
Guest & Recreation Workers	14	0.035	Avg of Bellhops and Concierges	$ 24,195	339,000
Food & Beverage Workers	101	0.270	Avg of Food Prep Wkrs, Food Servers, Chefs	$ 22,407	2,263,000
Office & Clerical Workers	38	0.100	Administrative Assistants	$ 31,600	1,201,000
Maintenance Workers	10	0.025	Buildings/Grounds Maintenance Workers	$ 23,300	233,000
Total	**244**	**0.654**		**$23,800**	**$5,811,000**

Rooms 373

Source: PKF Consulting; Pennsylvania Department of Labor and Industry; Economics Research Associates, 2006.

ABOUT OUR CONSULTANTS

Pennoni

COMPANY FACT SHEET

SERVICES

- **Bridge & Highway Engineering**
- **Building Systems**
- **Civil Engineering**
- **Construction Inspection**
- **Construction Materials Testing**
- **Electrical Engineering**
- **Environmental Engineering**
- **Environmental Sciences**
- **Fabrication Inspection**
- **Geographic Information Systems (GIS)**
- **Geotechnical Engineering**
- **International Code Council and Uniform Construction Code Services**
- **Landscape Architecture**
- **Mechanical Engineering**
- **Planning**
- **Site Design**
- **Solid & Hazardous Waste Management**
- **Surveying**
- **Structural Engineering**
- **Transportation Engineering**
- **Water & Wastewater Management**

Registered Engineers	137
Registered Geologists	3
Registered Land Surveyors	21
Registered Planners	8
Registered Landscape Architects	7

PERSONNEL BY DISCIPLINE

Bridge Engineers	20
Certified Bridge Inspectors (Non-Engineers)	3
Chemical Engineers	1
Chemists	1
Civil Engineers	69
Coatings Inspector (NACE)	10
Computer Specialists	11
Construction Inspectors	61
Construction Manager	4
Designers	25
Draftspersons/CADD	30
Electrical Engineers	7
Environmental Engineers	6
Environmental Scientists	17
Geographic Information Systems (GIS)	2
Geologists	9
Geotechnical Engineers	7
Highway Engineers	31
Hydrologists/Hydrogeologists	4
Landscape Architects	16
Materials Engineers	3
Mechanical Engineers	7
Planners: Urban/Regional	1
Precast/Prestressed Concrete Inspectors	8
Project Managers	35
Sanitary/Water Engineers	12
Steel/Welding/NDT Inspector	54
Structural Engineers	19
Support Staff	87
Surveyors	40
Technicians	63
Timber Inspectors	3
Traffic Engineers	20
TOTAL	**686**

Providing Professional Services Since 1966

PENNONI OFFICES

Andover, MA	978•749•9929	**Ellicott City, MD**	443•463•5866	**Salem, NH**	603•226•1950
Bethlehem, PA	610•231•0600	**Haddon Heights, NJ**	856•547•0505	**State College, PA**	814•238•1170
Brownsville, PA	724•785•8130	**King of Prussia, PA**	610•277•2844	**Vineland, NJ**	856•692•5081
Camp Hill, PA	717•975•6481	**Knoxville, TN**	865•281•0668	**West Chester, PA**	610•429•8907
Cranford, NJ	908•653•0889	**Philadelphia, PA**	**215•222•3000**	**Wilkes-Barre, PA**	570•824•2200
Doylestown, PA	215•345•4591	**Pittsburgh, PA**	412•521•3000	**Wilmington, DE**	302•655•4451

http://www.pennoni.com

COMPANY PROFILE

Pennoni Associates Inc., established in 1966, is a multi-disciplined consulting engineering firm which provides personalized services and solutions to meet the needs of our diverse clients. Pennoni employs more than 600 professional, technical, and administrative personnel in 18 domestic offices throughout **Pennsylvania, New Jersey, Delaware**, **New England**, **Tennessee**, and **Maryland**. Services are provided to local, state, and federal governments, private, commercial, industrial, and construction clients as well as to other professional firms.

Pennoni Associates offers services in:

- Civil/Municipal
- Water/Wastewater
- Transportation
- Underwater Inspections
- Environmental
- Inspection and Testing
- Land Surveying
- Site Design and Landscape Architecture
- Building Systems
- Geotechnical
- Structural

We keep abreast of rapidly changing technology that impacts our practice and apply this knowledge to assist clients in meeting their specific project requirements.

TECHNOLOGY SUMMARIES

Pennoni Associates Inc. is a multi-disciplined engineering firm offering expertise in the technologies outlined below. We employ more than 600 professional, technical, and administrative personnel in offices throughout Pennsylvania, New Jersey, Delaware, New England, Tennessee, and Maryland.

Pennoni has assisted commercial, industrial, and government clients in engineering and environmental issues since 1966. Our professional staff is up-to-date with federal, state, and local legislation and regulations governing engineering and environmental management practices. Pennoni's engineering and environmental management capabilities and experiences include, but are not limited to, the following:

BUILDING SYSTEMS

Pennoni's Building Systems division consists of structural, mechanical, and electrical engineers with analytical and technical skills to recommend/design a wide range of building systems in commercial, industrial, institutional and governmental facilities. Our services include HVAC, plumbing and fire protection design, electrical power distribution, lighting and intrusion detection systems, as well as structural evaluation, reports, design and rehabilitation.

CIVIL/MUNICIPAL

Pennoni's Civil/Municipal division assists communities with engineering problems involving maintenance of and improvement to public works systems. Issues often include road and stormwater maintenance, traffic safety, signing and signalization, waste management studies, building inspection, parks and recreation, plan and code review, grantsmanship and regulatory application coordination.

ENVIRONMENTAL

Our environmental division consists of environmental, civil and chemical engineers, geologists, industrial hygienists, and environmental scientists experienced in performing environmental, site assessment, remedial design, agency negotiations, and expert testimony/litigation support services. Additional environmental services include solid and hazardous waste management, underground storage tank management, soil/groundwater investigations and remediation, asbestos, lead-based paint and PCB management and health and safety planning. We have performed numerous environmental impact statements, wetland delineations/mitigations, and environmental permit applications.

GEOTECHNICAL ENGINEERING

Pennoni provides professional geotechnical engineering services utilizing sound technical approaches with a high regard for cost effectiveness and constructability. As geotechnical engineers, our professional staff plans and implements detailed subsurface explorations. These studies are comprised of test borings, test pits, geophysical surveys, laboratory testing, and thorough analyses. Based on our findings, recommendations are developed for foundation, pavement and earthwork design, embankment stability, geosynthetics applications, soil stabilization and dewatering techniques.

INSPECTION & TESTING

Every element in a bridge or building is designed to support the total structure. Whether made of timber, concrete or steel, material properties and dimensions must meet design specifications. Our material specialists are well equipped to perform inspection and testing at the construction site, fabrication plant or in our laboratories. These services provide quality assurance to aid contractors and fabricators in meeting the criteria specified by the design engineer.

TECHNOLOGY SUMMARIES

LAND SURVEYING

We provide the necessary framework to achieve a quality product based upon a reliable survey. Our accomplished staff offers innovative, timely, and cost-effective solutions to help clients reach their goals. Pennoni utilizes the latest technology to provide various types of services including ALTA/ACSM Land Title Surveys, GPS, base mapping, topographic and hydrographic construction.

SITE DESIGN / LANDSCAPE ARCHITECTURE

Our Site Design division consists of landscape architects, civil engineers, and design technicians. Services provided by the division include preparation of site plans, stormwater management and drainage design, site feasibility studies, master plans, land use planning, environmental impact assessment, visual resource management (VRM), utility corridor evaluation, erosion and sedimentation control plans, planting design, design of parks, recreation and athletic facilities; grounds improvement plans, and plans and narratives for local, state and federal permitting. Locations of site design include corporate, university and college campuses, schools, athletic complexes, hospitals, waterfront developments, retail centers, housing, transportation corridors, streetscapes, parking, visual analysis and mitigation.

STRUCTURAL

Our structural engineering staff provides creative design solutions to architects and owners for a wide range of building types, including commercial, educational, entertainment, hospitality, institutional, residential and sports facilities. A thorough knowledge of the major building materials, including steel, concrete, masonry and timber, is at the core of our ability to create cost effective solutions through simplicity of design. Our reputation for competence and professionalism is a direct result of our performance on technically demanding and often high profile projects.

TRANSPORTATION

Pennoni's Transportation division uses state-of-the-art computer technology to effect safe, efficient and attainable transportation systems. Our services include transportation facility design, municipal traffic engineering, Intelligent Transportation Systems (ITS), technology, traffic signal systems, comprehensive transportation planning, bridge design/inspection, due diligence analysis, traffic studies, traffic operations evaluations and expert testimony.

WATER/WASTEWATER ENGINEERING

Pennoni's water and wastewater engineers are experienced in the design, construction supervision, management, maintenance, and operations of water and wastewater treatment plants, distribution systems, collection systems, and pump stations. In addition to design services, we conduct feasibility and financial studies.

ERA

Economics Research Associates - Profile of the Firm

Economics Research Associates (ERA) was founded in Los Angeles in 1958. Since 1981, the firm has been owned as a California Corporation by its principal consultants. Headquarters are in Los Angeles, California, with offices in Chicago, San Francisco, San Diego, New York, London, and Washington, D.C. There are about 110 members of the staff; professional consultant tenure with the firm averages 11 years. In domestic and international projects, ERA has completed nearly 16,000 research and consulting assignments for both public and private clients. Fusing talents of a multi-disciplined staff, the firm's experience has concentrated in five interrelated fields: (1) recreation, tourism, and leisure time; (2) real estate and land use; (3) economic development and planning; (4) transportation systems; and (5) management and marketing services.

ERA's work in the field of recreation, tourism, and leisure time incorporates experience in formulating tourist development plans for major geographic regions and sub-regions, evaluation of specific public and commercial recreational facilities, and analysis of special mass attraction events and sports facilities. Long known for its work with major theme parks in the United States, and now internationally as well, ERA has also led in the definition of responsible revenue generation and cost coverage programs for public park systems. The firm is presently a leading authority on the development and programming of urban entertainment centers.

ERA has established one of the finest research libraries in the country during its 47-year history. This library contains 200 active periodical subscriptions, more than 2,000 books, data series, and focused geographic files. All ERA offices are networked and electronically convey data and documents between offices as well as with clients. The consulting staff profile of the firm emphasizes both breadth and specialization. During 2005, the staff includes:

- 24 Economists
- 16 Financial Analysts
- 18 Real Estate Analysts
- 12 Urban and Regional Planners

The firm is unique in its distribution of responsibility and ownership. Twenty-one of the senior professionals, in all offices of the firm, are shareholders.