

**ENVIRONMENTAL
ASSESSMENT**

For

**Engine Company 16
53 East Pershing Road
Chicago, Cook County, Illinois 60653**

Prepared for
**Public Building Commission of Chicago
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On Behalf of:

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1.0 Introduction

1.1 *Project Authority*

The Public Building Commission of Chicago has applied for and been awarded a grant under the Federal Emergency Management Agency (FEMA) Assistance to Firefighters Grant Program – Fire Station Construction Grants (AFGP-FSC) to construct a new fire station for the Grand Boulevard community in Chicago, Illinois. The objectives of the FEMA AFGP-FSC are to provide financial assistance directly to fire departments and nonaffiliated emergency medical services (EMS) organizations to build new or modify existing fire stations, enhance their response capability and protect the community they serve from fire and fire-related hazards. The American Recovery and Reinvestment Act, (Public Law 111-5), of 2009 provides funding for this program.

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA [40 Code of Federal Regulations (CFR) Parts 1500 through 1508], and FEMA regulations for NEPA compliance (44 CFR Part 10), FEMA must fully understand and consider the environmental consequences of actions proposed for federal funding. The purpose of this Environmental Assessment (EA) is to meet FEMA's responsibilities under NEPA and to determine whether to prepare a Finding of No Significant Impact (FONSI) or a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the proposed project.

1.2 *Project Location*

The existing Chicago Fire Department Engine Company 16 facility is currently located at 4005 South Dearborn Street in Chicago, Cook County, Illinois in the Grand Boulevard community. The Grand Boulevard community is an area within the City of Chicago bounded by East 39th Street (Pershing Road) to the north, 51st Street to the south, Cottage Grove Avenue to the east, and the Chicago Rock Island & Pacific Railroad tracks to the west. It is one of two communities that encompass the greater Bronzeville neighborhood. The community of Grand Boulevard has a population of approximately 28,000 and encompasses approximately 1.7 square miles.

The proposed Engine Company 16 facility will be constructed within the Grand Boulevard community. The proposed site is located on the southeast corner of East Pershing Road and South Wabash Avenue in Chicago, Cook County Illinois and encompasses approximately 1.54 acres, with a designated common address of 53 East Pershing Road (Proposed Action Site). Location maps and aerial photographs are provided in Appendix A.

1.3 *Purpose and Need*

The existing two-story fire station is located at 4005 S. Dearborn. The station was built in 1936 and has a footprint of 3,125 square feet. While it has served the community well

for the past 70 years, it is in need of structural and maintenance upgrades, as well as a total retrofit; necessary to bring present technology into the facility. The building is not a historical landmark. After construction of the proposed new fire house, the building will be put up for auction by the city. If no prospective purchasers/users can be found, the building will probably be demolished. In addition, as traffic volumes on area roadways continue to increase in the area, emergency response times will also continue to increase from this location, negatively impacting response time to general population in the area.

Construction of the proposed project would allow the City of Chicago Fire Department (CFD) to meet the following needs:

- Shorten emergency response distances;
- Improve emergency response times;
- Upgrade technology;
- Meet National Fire Protection Association (NFPA) and International Organization for Standardization (ISO) standards;
- Improve multi-company operation times, including Rapid Intervention Teams (RIT);
- Enhance mutual aid capabilities; and
- Complete construction and be operational as soon as possible.

2.0 Alternative Analysis

2.1 Alternatives Considered

Three alternatives were considered to meet the purpose and need of the CFD:

- Alternative 1 - No Action
- Alternative 2 – Expand Existing Facility
- Alternative 3 – New Facility

Alternative 1 – No Action

Under the No Action Alternative, the CFD would continue to operate from the existing 70-year-old Engine Company 16 fire station, located at 4005 South Dearborn Street. There would be no environmental impacts associated with the No Action Alternative, but the needs of the CFD would not be addressed. Under the No Action Alternative, heavy traffic and local delays would continue to cause response times to approach or exceed NFPA and ISO standards, affecting the safety of both the public and the firefighters.

Alternative 2 – Expand Existing Facility

Under this alternative, the existing fire station at 4005 South Dearborn Street would be expanded and rebuilt. This existing 3,125 square foot fire station is overcrowded and lacks adequate space and configuration. While it is centrally located, it is landlocked, with limited room for expansion (only one vacant parcel to the south). The age and design of the building makes expansion of the central work area extremely difficult, and therefore a demolition/re-build would probably be necessary. Under this alternative, heavy traffic delays would continue to cause response times to exceed NFPA and ISO standards, affecting the safety of both the public and the firefighters. There would be limited environmental impacts associated with this alternative; however the needs of the CFD would not be addressed.

Alternative 3 – New Fire Company 16 Fire & EMS Facility at 53 East Pershing Road (Proposed Action Site)

Under this alternative, a new 19,725 square foot fire house will be constructed on the city-owned property at 53 East Pershing Road. This centrally-located site was chosen based on a combination of ingress/egress and city lot ownership. It will be the first of the Prototype 'B' engine companies, and include the following components: a large apparatus bay to house multiple emergency vehicles, full kitchen, locker rooms, toilet facilities, sleeping quarters, officers quarters, physical training room, meeting room, education room, EMS Field Division South offices, Hazardous Materials Response Team operation with associated storage, a 150' communication tower, and parking for approximately 34 vehicles.

The site was formerly occupied by a large multi-story structure, used since the 1930s as a natural gas provider administrative/meter-testing building, with subsequent use as a

warehouse. The site improvements were demolished down to the foundation at grade in the early 1990s. The city acquired the former industrial property in 2008.

The new fire station is being architecturally designed to reflect the character of the neighborhood. All parking will be on-site, south of the building, and the parking area will be shielded from view by fencing and landscaping. An emergency generator will be located outside the building to power the entire facility if there is a power failure. Minimal signage is planned.

Utilities will be augmented by a geothermal well cluster which will be emplaced beneath the parking lot area, along with an underground storm water detention basin. Construction of the basin will require 800 cubic yards of earth excavation. The completed basin will temporarily store 6,000 cubic feet of storm water runoff and slowly release it through percolation into the underlying sandy soil. An underground cistern will collect and store rain water from the building's green roof areas; the water will be treated and re-used for on-site irrigation as well as for flushing toilets.

The proposed project will be designed and constructed in accordance with the Americans with Disabilities Act (ADA), the City of Chicago Building Code, local ordinances and Federal regulations. The building will be equipped with a fire alarm and fire suppression (sprinkler) system. The proposed fire station is anticipated to be Leadership in Energy and Environmental Design (LEED) - compliant and seek a gold rating.

2.2 Alternatives Eliminated From Further Consideration

The following alternatives were considered but eliminated from further evaluation:

Alternative 3A – New South Side Fire & EMS Facility at the Northwest Corner of East 43rd Street and South Wabash Avenue

Under alternative 3A, a replacement fire station would be constructed at the northwest corner of East 43rd Street and South Wabash Avenue. The City acquired the property and razed several derelict residences. This parcel was eliminated based on a non-central location relative to the local population density and the fact that several of the lots in question were not city-owned. This sub-alternative will not be discussed further.

Alternative 3B – New South Side Fire & EMS Facility at the Northwest Corner of East 39th Street and South Wabash Avenue

Under alternative 3B, a replacement fire station would be constructed at the northwest corner of East 39th Street and South Wabash Avenue. This site option was also eliminated based on the fact that several of the lots in question were not city-owned coupled with ingress/egress relative to the chosen proposed action site (see below). This sub-alternative will not be discussed further.

3.0 Affected Environment and Potential Impacts

Solicitation of View (SOV) letters dated August 4, 2010 were submitted to federal, state, and local agencies and other interested parties in an effort to solicit comments and information regarding resources that may be under their jurisdiction or prevue. Agency and interested party responses and requested information have been incorporated into the following sections. A copy of the SOV and response letters from agencies and interested parties are included in Appendix C – Agency Coordination. The impact assessment herein is based on reasonably ascertainable information and professional experience as well as guidance provided by state and federal agencies.

3.1 Geology, Seismicity, and Soils

The project area is located in east-central Cook County, in northeastern Illinois. Based on the review of United States Geological Survey (USGS) topographic maps and site observations, the proposed site has an approximate elevation of 598 feet above Mean Sea Level (MSL). Topography is relatively flat and the site is not located immediately adjacent to rivers, streams or other physical features that would adversely impact the project. A topographic map of the project area has been included in Appendix A.

According to the *United States Department of Agriculture (USDA) Soil Survey for DuPage and Parts of Cook Counties, 1979*, the subject property is mapped in an area consisting of Urban land-Milford soils. The Urban land-Milford soil is characterized as “built-up areas and deep, gently rolling to nearly level, moderately well drained and poorly drained soils that have a clayey and silty subsoil; formed in glacial lake sediment.”

Based on the soil information from PSI’s previous Phase II Environmental Site Assessment (ESA) performed for the proposed site, the soils encountered during drilling consisted of topsoil and concrete underlain by fill material (consisting of crushed brick, sands, silt, and gravel) at depths ranging from the surface to approximately 13 feet below ground surface (bgs). Beneath the soil/fill horizon is approximately 25 feet of well-sorted sand and sandy silt of the Pleistocene Age Dolton Member of the Equality Formation. Silty clay of the Wadsworth Formation underlies the Dolton Formation to approximately 50 feet in depth, based upon geotechnical borings conducted by GSG Consultants Inc.

Silurian Age dolomitic limestone of the Racine Formation unconformably underlies the Pleistocene sediments to a depth of approximately 365 feet; underlain by finer-grained Ordovician Age sediments of the Maquoketa and Galena Groups. Potable groundwater is typically found within the Racine Group. However, use of groundwater is prohibited by ordinance within the City of Chicago, which obtains potable water from Lake Michigan.

Cook County has had three recorded earthquakes since 1795. In addition, one earthquake was recorded in each adjacent county since 1795. According to the Illinois State Geological Society (ISGS) maps, an 1804 seismic event (magnitude 4.5 to 4.9) occurred in north-central Cook County, a 1911 seismic event (magnitude 3.2) occurred in eastern Cook County, and a 1928 seismic event (magnitude 3.2) occurred in northeast Cook County. The seismic events in adjacent counties included a 1909 seismic event

(magnitude over 5.0) in northeast Will County, and a 1985 seismic event (magnitude 3.0) in east-central DuPage County

An SOV letter dated August 4, 2010 was submitted to the USDA Natural Resources Conservation Service (NRCS). As of the date of this report, no response has been received. A copy of the SOV letter is included in Appendix C.

Alternative 1 - No Action

Under this alternative, there will be no disturbance to the existing facility and no impacts to geology or soils.

Alternative 2 - Expand Existing Facility

Under this alternative, construction activities would not be deep enough to impact underlying geologic resources. Short-term impacts to non-native soils would occur during the construction period. Appropriate Best Management Practices (BMPs), such as silt fence, erosion blanket, and prompt reestablishment of vegetative ground cover would be used to minimize sedimentation and soil erosion. Approximately 1,000 cubic yards of earth excavation would be required to construct proposed building footings (160 cu yd), sanitary sewer service (25 cu yd), potable water service (50 cu yd), and underground storm water runoff detention facility (730 cu yd). All excavated material would be transported off-site and disposed by the contractor in such a manner that public or private property will not be damaged or endangered. The site is in an urban area; therefore, excavation would take place within previously disturbed soil.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, construction activities would not be deep enough to impact underlying geologic resources. The proposed fire station will not have a basement, so excavation will not exceed eight feet for building foundations, light pole foundations, utilities to the fire station, and parking lot construction (with the exception being the geothermal wells, which will extend to depths of approximately 650 feet). Short-term impacts to soils would occur during the construction period.

Appropriate BMPs, such as silt fence, erosion blanket, and prompt reestablishment of vegetative ground cover would be used to minimize sedimentation and soil erosion. Approximately 3,600 cubic yards of earth excavation is anticipated to construct proposed building footings (160 cu yd), slab emplacement and environmental site remediation for on-site underground storage tanks (USTs) and contaminated soils, program engineered barrier requirements (2,500 cubic yards), sanitary sewer service (25 cu yd), potable water service (50 cu yd), and underground storm water runoff detention facility (800 cu yd). All excavated material would be transported offsite and disposed by the contractor in such a manner that public or private property will not be damaged or endangered. The site is in an urban area; therefore, most excavation would take place within previously disturbed soil (fill).

Installation of geothermal wells in bedrock formations will have no impact on geological resources, with the exception of a slight change in geothermal gradient over time in the immediate vicinity. Change in the local geothermal characteristic would be incidental to

the geologic resource. A copy of the site plan showing areas of proposed excavation is provided in Appendix A. The proposed site is located in an area of minimal seismic risk (Area 1 on the USGS seismic risk map), and construction of improvements would not need to incorporate seismic risk into building specifications.

3.2 Surface Water and Groundwater Quality

The Clean Water Act (CWA), as amended in 1977, established the basic framework for regulating discharges of pollutants into waters of the United States. The proposed project site is currently a vacant lot. Surface water currently drains into area municipal sewers or is absorbed into the soil. The project site is not adjacent to any streams, rivers, lakes that would receive surface water discharges.

The nearest water body is Lake Michigan, approximately 0.5 mile from the proposed project site and is the source of potable water for the City of Chicago. The most recent comprehensive chemical analysis report for the City of Chicago drinking water was reviewed. No analyzed constituents exceeded the Illinois Environmental Protection Agency (IEPA) action levels. The City of Chicago has a Groundwater Ordinance that prohibits private wells for potable use.

A United States Environmental Protection Agency (USEPA) Region 5 designated sole source aquifer map was reviewed. Based on the map reviewed, no designated sole source aquifers are located in the general area. The designated sole source aquifer map is included in Appendix A.

SOV letters dated August 4, 2010 were submitted to the USEPA, IEPA, and Illinois Department of Natural Resources (IDNR). As of the date of this report, no response has been received. Copies of the SOV letters are included in Appendix C – Agency Coordination.

Alternative 1 - No Action

Under this alternative, there would be no construction and no impacts to surface or groundwater quality would be expected.

Alternative 2 - Expand Existing Facility

Under this alternative, no short-term impacts to water resources and surface water quality would occur during the construction period. The existing Fire & EMS Facility is located on a developed parcel with no standing water or wet areas. Storm water detention would be provided in accordance with the City of Chicago requirements for development. Storm water would be collected by onsite storm sewers, which would be connected to the municipal storm sewer system. Appropriate BMPs, such as silt fence, erosion blanket, and prompt reestablishment of vegetative ground cover would be used to minimize sedimentation and soil erosion during construction. No impacts to groundwater resources would result.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, no short-term impacts to water resources or surface water quality would occur during the construction period. The proposed project consists of a 19,725

square foot fire house and associated parking lot. During and after development, storm water runoff detention will be provided in accordance with the City of Chicago requirements for development. Storm water will be collected by onsite detention basins constructed beneath permeable-paver parking lots, which will then percolate down through the underlying sandy soil. An underground cistern will collect and store rain water from the building's green roof areas; the water will be treated and re-used for on-site irrigation as well as for flushing toilets. As a result, a National Pollution Discharge Elimination System (NPDES) permit will not be required. Appropriate BMPs, such as silt fence, erosion blanket, and prompt reestablishment of vegetative ground cover would be used to minimize sedimentation and soil erosion during construction. No impact to groundwater resources would result. Chicago obtains potable water from Lake Michigan, one mile east of the Proposed Action Facility. No impacts to this surface water body are anticipated

3.3 Floodplains

Executive Order 11988, Floodplain Management, directs each federal agency to avoid the long and short term adverse impacts associated with the occupancy and modification of floodplains, including the direct and indirect support of floodplain development, whenever there is a practicable alternative. Executive Order 11988 defines a floodplain as follows:

“...the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year.”

For the purposes of this assessment, this definition applies to those areas designated within a 100-year floodplain. FEMA produces and maintains floodplain maps that show the assigned floodplain designation for a given area. The Flood Insurance Rate Map (FIRM) provided by FEMA (17031C0528J – August 19, 2008, Appendix C) was reviewed to determine if the proposed project area will be constructed in a 100-year or 500-year floodplain. The proposed project will not be constructed within a 100-year or 500-year floodplain.

Alternative 1 - No Action

Under this alternative, there would be no impact to 100-year floodplains.

Alternative 2 - Expand Existing Facility

Under this alternative, there would be no impacts to 100-year floodplains. The existing fire station is located in an un-shaded Zone X, outside the limits of the 500-year floodplain. The nearest 100-year and 500-year floodplains are located 0.5 miles to the east.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, there would be no impact to 100-year or 500 year floodplains. The proposed project is located in an un-shaded Zone X, outside the limits of the 500-

year floodplain. The nearest 100-year and 500-year floodplains are located along the shore of Lake Michigan, approximately 0.5 mile from the Proposed Action facility.

3.4 Air Quality

The Clean Air Act (CAA) requires the USEPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA established two types of national air quality standards. Primary standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, as well as damage to animals, crops, vegetation, and buildings. Current criteria pollutants established by the NAAQS are carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃), lead (Pb), and total suspended particulates (TSP). On a county-wide basis, the USEPA classifies each contaminant as either being attainment, non-attainment, or unclassifiable.

Cook County is a designated non-attainment area for particulate matter (PM_{2.5}) and a moderate attainment area for ozone pollution (8-hour ozone). Documentation is provided in Appendix A.

Alternative 1 - No Action

Under this alternative, there would be no impact to the local ambient air quality.

Alternative 2 - Expand Existing Facility

Under this alternative, temporary short-term impacts to local ambient air quality would occur during remodeling and construction activities at the existing fire station. To reduce impacts, the applicant will ensure that the construction contractors spray the site with water as needed, to mitigate airborne dust. Emissions from fuel-burning engines (construction equipment) could temporarily increase levels of PM_{2.5} particulate and ozone. To mitigate these emissions, fuel-burning equipment will be properly maintained. The existing facility location is adjacent to Interstate Highways 90/94. As a result, contribution to total emissions of PM_{2.5} and ozone to the County load would be insignificant. There is also a construction moratorium within Cook County to allow construction of new facilities by municipalities.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, temporary short-term impacts to the local ambient air quality would occur during construction activities at the new fire station. To reduce impacts, the applicant will ensure that the construction contractors spray the site with water as needed, to mitigate airborne dust. Emissions from fuel-burning engines (construction equipment) could also temporarily increase the levels of PM_{2.5} particulate and ozone. To mitigate these emissions, fuel-burning equipment will be properly maintained. The proposed action facility location is adjacent to Interstate Highways 90/94. As a result, contribution to total emissions of PM_{2.5} and ozone to the County load would be insignificant.

3.5 Coastal Zone Management

Based on review of the IDNR *Coastal Management Plan Document, Chapter 3, dated March 23, 2010*, the proposed project area is not within the designated boundaries of coastal zone management and therefore not applicable to this project.

To verify this, PSI sent agency correspondence letters to the IDNR – Office of Water Resources and the National Oceanic and Atmospheric Administration (NOAA) Office of Ocean & Coastal Resource Management to request a project review. Mr. Todd Main of the IDNR stated that the IDNR’s Coastal Zone Management Plan is currently under review by the NOAA in a voicemail. However, based on the provided information to the IDNR, this property does not appear to be within a coastal zone boundary. Agency correspondence has been included in Appendix C. As of the date of this report, no response has been received.

3.6 Wetlands

Executive Order 11990 directs federal agencies to avoid long and short term impacts to wetlands, avoid direct and indirect support of new construction in wetlands, minimize the wetland destruction, loss, and degradation, preserve and enhance the value of wetlands, and involve the public throughout the wetlands protection decision-making process. Wetlands, as defined by Executive Order 11990, are those areas that are inundated by surface water or groundwater with a frequency sufficient to support vegetative or aquatic life that required saturated or seasonally saturated soil conditions. The U.S Army Corps of Engineers (USACE) has regulatory authority over the discharge of fill materials into jurisdictional wetland and waters of the U.S.

Review of the National Wetland Inventory (NWI) maps maintained by the U.S. Fish and Wildlife Service (USFWS) shows no wetland habitat on the project area. Aerial photographs show the site was previously developed with no wetlands evident. The site inspection showed no indications of wetland areas. The nearest mapped wetland is greater than one mile from the site.

SOV letters dated August 4, 2010 were submitted to the USACE and USFWS. As of the date of this report, no response has been received. Copies of the SOV letters are included in Appendix C – Agency Coordination.

Alternative 1 - No Action

Under the No-Action Alternative, no impacts to jurisdictional wetlands would be expected.

Alternative 2 - Expand Existing Facility

Under this alternative, construction at the existing fire station would impact only pavement and mowed grass areas/topsoil. There would be no impact to wetlands.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, construction of the proposed fire station would impact only gravel and mowed grass areas/topsoil. There would be no impact to wetlands.

3.7 Terrestrial and Aquatic Environment

The general project area is a vacant parcel within an urban environment in the City of Chicago. The proposed project area supports wildlife and vegetation common to urban development, including songbirds and small mammals such as squirrels and rabbits. There is no standing water or wet areas on the site. The closest aquatic environment is Lake Michigan, approximately 0.5 mile from the property.

Alternative 1 - No Action

Under this alternative there would be no impacts to terrestrial or aquatic resources.

Alternative 2 - Expand Existing Facility

Under this alternative, the south portion of the proposed site would be redeveloped with the building expansion. Existing vegetative ground cover consisting of pavement, mowed grass and landscaped areas to the south would have to be removed to allow for expansion of the existing facility. However, the impact of expanding the existing facility would be negligible to the existing wildlife population.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, the proposed site would be redeveloped with a building, a parking lot, and grass areas. The proposed site is currently vacant and supports vegetation and wild species common to an urban environment. Wildlife species would relocate to surrounding areas with similar habitats. Landscaping would replace vegetation removed during construction. The impact to the existing wildlife population would be negligible.

3.8 Threatened and Endangered Species

The purpose of the Endangered Species Act (ESA) of 1973 is to not only to protect species, but also to protect “the ecosystems upon which they depend”. It encompasses plants and invertebrates as well as vertebrates. In accordance with Section 7 of the ESA of 1973, the project area was evaluated for the potential occurrences of Federally-listed threatened and endangered species. The ESA requires any federal agency that funds, authorizes or carries out an action to ensure that their action is not likely to jeopardize the continued existence of any endangered or threatened species (including plant species) or result in the destruction or adverse modification of designated critical habitats (FEMA 1996).

The proposed project area is located within a highly developed urban environment. The USFWS listed nine endangered and threatened species for Cook County, Illinois.

Species	Status	Habitat
Piping plover (<i>Charadrius melodus</i>)	Endangered	Lakeshore beaches
Eastern Massasauga (<i>Sistrurus catenatus</i>)	Candidate	Graminoid dominated plant communities (fens, sedge meadows, peatlands, wet prairies, open woodlands, and shrublands)
Hine's emerald dragonfly (<i>Somatochlora hineana</i>)	Endangered, Critical Habitat Designated	Spring fed wetlands, wet meadows and marshes
Eastern Prairie Fringed Orchid (<i>Platanthaera leucophaea</i>)	Threatened	Moderate to high quality wetlands, sedge meadow, marsh, and mesic to wet prairie.

Species	Status	Habitat
Leafy Prairie-Clover (<i>Dalea foliosa</i>)	Endangered	Prairie remnants on thin soil over limestone
Mead's Milkweed (<i>Asclepias meadii</i>)	Threatened	Late successional tallgrass prairie, tallgrass prairie converted to hay meadow, and glades or barrens with thin soil
Prairie Bush Clover (<i>Lespedeza leptostachya</i>)	Threatened	Dry to mesic prairies with gravelly soil

(<http://www.fws.gov/midwest/endangered/lists/illinois-city.html>)

According to the IDNR Ecological Compliance Assessment Tool (EcoCAT), the Illinois Natural Heritage Database contains no record of the following in the vicinity of the proposed project site:

- State-listed threatened or endangered species,
- Illinois Natural Heritage Area Inventory Sites,
- Dedicated Illinois Nature Preserves, or
- Registered Land and Water Reserves

SOV letters dated August 4, 2010 were submitted to the USFWS and IDNR. The IDNR responded and stated to use the agencies EcoCAT tool for agency consultation. Ms. Cathy Pollack of the USFWS stated in a voicemail that the USFWS no longer responds to these requests and that information regarded threatened and endangered species in the area is available on the USFWS website. Copies of the SOV letters are included in Appendix C – Agency Coordination.

Alternative 1 - No Action

Under the No-Action Alternative, no impacts to threatened and endangered species or critical habitats would be expected.

Alternative 2 - Expand Existing Facility

Under this alternative, the proposed site would be expanded to the south. The existing fire station is also in an urban environment and does not contain the habitats needed to support the endangered species in the county. The site ground cover consists of building, pavement, and mowed grass. The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species and Illinois Natural Heritage Database Area Inventory Sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. The expansion of the existing fire station would not cause impacts to known threatened and endangered species or critical habitats.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, the proposed site would be redeveloped with a building, parking lot, and grass areas. The project area is located within an urban environment and does not contain the habitats needed to support the endangered species in the county. According to the IDNR EcoCAT, the Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Heritage Area Inventory Sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the Proposed Action Site. Therefore, construction of the

facility would not cause impacts to known threatened and endangered species or critical habitats.

3.9 Public Health and Safety (Hazardous Waste)

A Phase I ESA for the proposed site was completed by Environmental Protection Industries (EPI) on June 4, 2008. In addition, EPI performed a Phase I ESA update for the proposed site on March 19, 2010. The purpose of a Phase I ESA is to identify on-site and off-site recognized environmental conditions (RECs) at the proposed site. A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The Phase I ESA includes a review of environmental regulatory database information regarding environmental conditions on and surrounding the subject property, physical setting sources, and historical information sources regarding the past uses of the property. In addition, a site reconnaissance is performed and interviews are conducted with individuals with knowledge of the subject property and pertinent local, state, and federal agencies.

An Environmental Data Resources, Inc. (EDR) database search identified small quantity generator (SQG), large quantity generator (LQG), conditionally exempt small quantity generator (CESQG), underground storage tank (UST), leaking underground storage tank (LUST), voluntary clean-up program (VCP), and comprehensive environmental response, compensation and liability information system (CERCLIS) sites. These sites identified above were not considered evidence of a REC, with the exception of the following RECs listed below:

- The Proposed Action Site along South Wabash Avenue was formerly developed with a large industrial building occupied by Peoples Gas Light & Coke Company, used as general offices, shops, and warehouse to store, test, and repair natural-gas meter equipment.
- Four gasoline USTs located on the central portion of the Proposed Action Site represent a material threat of a release of petroleum products
- The long-term use of numerous USTs adjacent to the proposed site and documented petroleum product releases in close proximity (<1/8 mile) to the Proposed Action Site.
- The proximity of two former gasoline filling stations previously located, approximately 300 northwest feet from the Proposed Action Site.

PSI and EPI subsequently performed Phase II ESAs to address the RECs identified by EPI. The Phase II ESA identified three 500-gallon USTs on the central portion of the site. Within shallow fill soil, concentrations of VOCs, polynuclear aromatic hydrocarbons (PNAs) and lead were identified above Illinois Environmental Protection Agency (IEPA) Tiered Approach to Corrective Action Objectives (TACO, 35 IAC 742)

soil remediation objectives. No hazardous waste-equivalent concentrations of contaminants were identified.

In August of 2010, six gasoline USTs of varying sizes were removed from the Proposed Action Site. During removal, a release was not evident. Groundwater obtained from monitoring wells installed after tank removal showed no impacts from the removed USTs. However, remnant indicators of contaminants in closure soil samples obtained after UST removal indicated a release had occurred. Based upon laboratory test results, EPI was directed by the PBC to report a Leaking Underground Storage Tank (LUST) Incident to IEMA. IEMA was contacted on September 1, 2010, a gasoline release was reported, and Incident# 20100967 was issued to the site. A 20-Day Report was submitted to IEPA on September 19, 2010. A 45-Day Report/Corrective Action Plan (CAP) was issued to IEPA on October 25, 2010. This CAP advocates no action with the exception of installation of approved engineered barriers associated with construction of the proposed facility. We expect approval of the CAP prior to commencement of construction. Environmental reports pertaining to the site will be posted on the FEMA website and be available for public viewing (<http://www.fema.gov/plan/ehp/envdocuments/earegion5.shtm>).

Alternative 1 - No Action

Under the No-Action Alternative, there would be no proposed construction and would therefore be no impacts due to hazardous materials.

Alternative 2 - Expand Existing Facility

Under this alternative, no impacts due to hazardous materials are anticipated. Although subsurface hazardous materials are not anticipated to be present, excavation activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during the implementation of the proposed project shall be disposed of and handled by the applicant in accordance with applicable local, State and Federal regulations.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, the proposed site would be remediated in accordance with IEPA voluntary Site Remediation Program (SRP) parameters to address the onsite abandoned USTs and associated soil contamination. The mitigation measures proposed to address these abandoned USTs and fill soil contamination was to remove all USTs and remediate soils to the appropriate state standards (as described above). Performing remediation in this manner would result in an EA advocating a FONSI status for this NEPA project. Under this alternative, no impacts due to hazardous materials are anticipated. Although subsurface hazardous materials are not anticipated to be present, excavation activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during the implementation of the proposed project shall be disposed of and handled by the applicant in accordance with applicable local, State and Federal regulations.

3.10 Zoning and Land Use

According to the City of Chicago Zoning and Land Use Planning map, the project area is primarily zoned for business, commercial, manufacturing, and residential uses.

Alternative 1 - No Action

Under this alternative, there would be no proposed construction and would therefore be no impacts to existing zoning or land use patterns.

Alternative 2 - Expand Existing Facility

Under this alternative, expansion of the existing fire station would have no impact on existing zoning or land use patterns. A City of Chicago building permit would be issued after the plans were reviewed and approved and before the start of construction.

Alternative 3 - New Facility - 53 East Pershing Road (Proposed Action)

Under this alternative, construction of the proposed fire station would have no impact on existing zoning or land use patterns. The Proposed Action Site is currently zoned as RM-6 (multi unit: mid-rise & high-rise) and M1-3 manufacturing. A City of Chicago building permit would be issued after zoning plans were reviewed and approved before the start of construction.

3.11 Visual Resources

The general area is in an urban environment. The area is primarily developed with residences, commercial buildings, and manufacturing facilities. In addition, there are nine schools within a half mile of the Proposed Action Site.

Alternative 1 - No Action

Under this alternative, there would be no proposed construction and the view of the existing fire station would remain unchanged.

Alternative 2 - Expand Existing Facility

Under this alternative, expansion of the existing fire station would potentially obstruct views of the surrounding area for neighboring properties. The site is bordered by residences to the south, east, and west, and West 40th Street followed by vacant lots to the north.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, construction of the proposed fire station would potentially obstruct views of the surrounding area for neighboring properties. However, the new fire station would be architecturally designed to reflect the character of the neighborhood. Uses of the adjoining properties include East 39th Street (East Pershing Road) followed by several retail/residential buildings to the north, East 40th Street followed by the Chicago Rapid Transit Authority (CTA) – Southside Branch rail line to the south, Record Control, Inc, a record/document storage facility and Elliot Donnelly Youth Center to the east, and a parking lot/Dawson Tech City College to the west.

All parking would be on-site, south and west of the proposed building, and the parking area will be shielded from view by fencing and landscaping. Minimal signage is planned.

Since the Proposed Action Site is vacant, construction of a new contemporary building will improve local aesthetics.

3.12 Noise

Noise is defined as undesirable sound and is federally regulated by the Noise Control Act of 1972. An average measure of sound is known as the day-night average sound level (Ldn), and is used by agencies for estimating sound impacts and establishing guidelines for compatible land uses. A USEPA document, “Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety” (1974) provides a basis for state and local government to set noise level standards. The document identifies a 24-hour exposure level of 70 decibels (dB) as the level of noise that will prevent any measurable hearing loss over a lifetime. Also, levels of 55 dB outdoors and 45 dB indoors are identified as preventing activity interference and annoyance. These levels are considered those which will permit spoken conversation and other activities such as sleeping, working and recreation. The levels are not single event, or “peak” levels, but represent averages over longer periods of time. An occasional higher noise level would be consistent with a 24-hour average of 70 dB, as long as a sufficient amount of relative quiet is experienced.

The sound level of a typical siren (115 db) decreases at six dB per doubling distance, assuming no obstructions. Uses of the adjoining properties include East 39th Street (East Pershing Road) followed by several mixed use buildings to the north, East 40th Street followed by the CTA – Southside Branch elevated rail line to the south, Record Control, Inc, a record/document storage facility and Elliot Donnelly Youth Center to the east, and a parking lot/Dawson Tech City College to the west. Since no residences are located adjacent to the proposed fire station and nearby buildings/structures deflect and muffle on-site sirens, additional neighborhood noise impact is deemed to be minimal.

The City of Chicago Department of Environment and the Chicago Police Department maintain a noise ordinance (Article XXI – Environmental Noise and Vibration Control) that provides standards and prohibitions for types of noise in various environments and settings. The ordinance states that construction activities of any building or excavation within 600 feet of any residential building or hospital are allowed between the hours of 8 a.m. and 8 p.m. on weekdays. During Proposed Action Site development, the City noise ordinance will be followed. No specific noise or decibel levels are designated under the City of Chicago’s noise ordinance.

Alternative 1 - No Action:

Under this alternative, no impacts related to noise are anticipated.

Alternative 2 - Expand Existing Facility:

Under this alternative, temporary short-term increases in noise levels would be anticipated during construction. To reduce noise levels during that period, construction activities would be restricted to normal business hours. Equipment and machinery utilized at the site would meet all local, State, and Federal noise regulations.

Over the long-term, vehicle traffic would increase at the proposed project site, primarily when EMS personnel are training or responding to traffic accidents, fires, severe weather, or other emergency events. The increased traffic and sirens would increase the noise level, but these increases would be very short in duration and would occur very infrequently. It is anticipated that these noise peaks would not cause an exceedance of the USEPA 24-hour exposure levels.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action):

Under this alternative, temporary short-term increases in noise levels would be anticipated during construction. To reduce noise levels during that period, construction activities would be restricted to normal business hours. Equipment and machinery utilized at the site would meet all local, State, and Federal noise regulations.

Over the long-term, vehicle traffic would increase at the proposed project site, primarily when EMS personnel are training or responding to traffic accidents, fires, severe weather, or other emergency events. The increased traffic and sirens would increase the noise level, but these increases would be very short in duration and would occur very infrequently. Uses of the adjoining properties include East 39th Street (East Pershing Road) followed by several mixed use buildings to the north, East 40th Street followed by the CTA – Southside Branch rail line to the south, Record Control, Inc, a record/document storage facility and Elliot Donnelly Youth Center to the east, and a parking lot/Dawson Tech City College to the west. It is anticipated that these noise peaks would not cause an exceedance of the USEPA 24-hour exposure levels.

3.13 Public Services and Utilities

The Proposed Action Site has all typical urban public services and utilities available. Police, fire, and access to emergency medical services are provided by the City of Chicago. Commonwealth Edison provides electricity, Peoples Gas provides natural gas and the City of Chicago provides water and sewer services.

Alternative 1 - No Action

Under this alternative, there would be no changes to public services, fire and emergency medical services, or utilities. In both the short-term and long-term, response time would continue to increase as roadway and train traffic volumes increase. No road closures or utility shutdowns would be necessary under the no action alternative. All required utilities are currently available to the existing fire station and construction of additional utilities would not be required.

Alternative 2 - Expand Existing Facility

Under this alternative, there would be no changes to public services, fire and emergency medical services, or utilities for the expanded existing fire station. Emergency response times would still be compromised by increasing roadway and train traffic volumes. All construction would take place on the existing fire station property, so no road closures or utility shutdowns would be necessary. All required utilities are currently available to the existing fire station and construction of additional utilities would not be required.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, there would be no changes to the public services or utilities for the proposed fire station. The proposed action would enhance fire and emergency medical services as the Proposed Action Site is centrally located. Construction would take place on vacant land, so utility shutdowns would not be necessary. All required utilities are currently available to the proposed fire station site and construction of additional utilities other than onsite services would not be required. Utilities will be augmented by a geothermal well cluster which will be emplaced beneath the parking lot area. Additional storm water detention and rainwater re-use will enhance the existing storm water utility.

3.14 Traffic

The Proposed Action Site is located on the east side of South Wabash Avenue with East Pershing Road on the north property boundary and East 40th Street on the south property boundary. East Pershing Road is a four-lane minor arterial roadway, under the jurisdiction of the Illinois Department of Transportation (IDOT), with an Average Daily Traffic (ADT) volume of 8,600 vehicles. South Wabash Avenue and East 40th Street are under the jurisdiction of the Chicago Department of Transportation (CDOT) and are two-lane roadways. No ADT volume data was available for CDOT-controlled roadways.

Alternative 1 - No Action

Under this alternative, no impacts to traffic patterns are anticipated. However, as traffic volumes on area roadways and trains continue to increase, emergency response times will also continue to increase, negatively impacting response time to general population in the area.

Alternative 2 - Expand Existing Facility

Under this alternative, no impacts to traffic patterns are anticipated. However, as traffic volumes on area roadways and trains continue to increase, emergency response times will also continue to increase, negatively impacting response time to general population in the area.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, there would be no adverse impacts to traffic patterns in the area. The proposed fire station would have two emergency access driveways; one on East Pershing Road and one on South Wabash Avenue. Primary circulation would be emergency vehicles entering the station from South Wabash Avenue and exiting the fire station onto East Pershing Road. Adjacent stoplights on Pershing Road will be linked into the new facility allowing fire/emergency personnel to control the adjacent signals to allow efficient traffic egress for emergency vehicles.

3.15 Environmental Justice

Executive Order (EO) 12898 -*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* provides that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.” In the memorandum that accompanied EO 12898, the importance

of including environmental justice considerations was emphasized: “each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA.”

The U.S. Census Bureau collects general statistical information from individuals and establishments in order to compile statistics relevant to the population of the United States. Every ten years, the U.S. Census Bureau coordinates an effort to gather information and data of the population of the U.S. In addition to this effort, the U.S. Census Bureau collects economic data of the U.S. population as well as state and local governments every five years. Minority and/or low-income populations are concentrated near the Proposed Action Site, as shown on the Census Bureau data for the Grand Boulevard Community below:

U.S. Census Bureau Data for Grand Boulevard Community	
Ethnicity	Percent of Population in Area
Black	97.7
White	0.62
Hispanic	0.84
Asian	0.07
Other	0.74
Median Income for Grand Boulevard Community Population	
\$21,672	

(www.census.gov)

Alternative 1 - No Action

Under this alternative, there would be no disproportionate or adverse impacts to minority or low-income populations in the City of Chicago Grand Boulevard Community. However, as traffic volumes on the area roadways continue to increase, emergency response times would also continue to increase, negatively impacting the general population in the area.

Alternative 2 - Expand Existing Facility

Under this alternative, there would be no disproportionate or adverse impacts to minority or low-income populations in the City of Chicago Grand Boulevard Community. However, as traffic volumes on the area roadways continue to increase, emergency response times would also continue to increase, negatively impacting the general population in the area.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, there would be no disproportionate or adverse impacts to minority or low-income populations in the City of Chicago Grand Boulevard Community. To the contrary, this alternative would reduce emergency response times by being centrally located, benefitting the local minority and low-income populations, reducing property damage due to fire and possibly saving lives.

3.16 Safety and Security

To minimize risks to safety and human health, all construction activities would be performed using qualified personnel trained in the proper use of construction equipment including appropriate safety precautions; additionally, construction activities would be conducted in a safe manner in accordance with Occupational Safety and Health Act (OSHA) regulations.

Alternative 1 - No Action

Under this alternative, there would be no construction and no direct impacts to safety of the population would occur. Emergency calls would continue to be answered by the existing fire station on Dearborn Street. However, as traffic volumes on the area roadways continue to increase, emergency response times would also continue to increase, negatively impacting the general population in the area. There would be no disproportionate health or safety risks to children.

Alternative 2 - Expand Existing Facility

Under this alternative, improvements to the existing fire station on Dearborn Street would provide increased protection for area residents during emergency events. However, as traffic volumes on the area roadways continue to increase, emergency response times would also continue to increase, negatively impacting the general population in the area.

Construction activities at the existing fire station would present safety risks to those performing the construction. Access to the site would be restricted during construction to protect the public and to minimize risks to human health. The appropriate signage and barriers would be installed prior to construction activities to alert nearby pedestrians and motorists. There would be no disproportionate health or safety risks to children.

Alternative 3 - New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, construction of a new fire station would provide increased protection for area residents during emergency events. As traffic volumes on area roadways continue to increase, emergency response times would also continue to increase. Therefore, having a centrally located fire station in the Grand Boulevard Community would have a positive impact to the general population to the area.

Construction activities at the existing fire station would present safety risks to construction workers. Access to the site would be restricted during construction to protect the public and to minimize risks to human health. The appropriate signage and barriers would be installed prior to construction activities to alert nearby pedestrians and motorists. There would be no disproportionate health or safety risks to children.

3.17 Historical and Cultural Resources

In addition to review under NEPA, consideration of effects to historic properties is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended, and as implemented by 36 CFR Part 800. Requirements include identification of significant historic properties that may be affected by the Proposed Action. Historic properties are defined as archaeological sites, standing structures, or other historic

resources listed in, or eligible for listing in, the National Register of Historic Places (NRHP) (36 CFR 60.4).

As defined in 36 CFR Part 800.16(d), the Area of Potential Effect (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. In addition to identifying historic properties that may exist in the proposed project's APE, FEMA must also determine, in consultation with the appropriate State Historic Preservation Officer (SHPO) and appropriate Tribal Historic Preservation Officer (THPO), what effect, if any, the action would have on historic properties. Moreover, if the project would have an adverse effect on these properties, FEMA must consult with the SHPO and appropriate THPO on ways to avoid, minimize or mitigate the adverse effect.

Historical Properties and Sites

Historic structures were identified in the general area of the proposed project area through the use of the Historic Architectural/Archeological Resources Geographic Information System (HAARGIS) database on the Illinois Historic Preservation Agency (IHPA) website. In addition, a letter dated August 4, 2010 was submitted to the SHPO requesting information and concurrence with the proposed project. Supporting documentation regarding historic properties in the general area was included. Ms. Anne Haaker of the IHPA responded that based on the provided information, no historic properties would be affected by the planned project. Copies of the correspondence are included in Appendix C.

Alternative 1, No Action

Under this alternative, there would be no construction and no adverse impacts to historic structures or archaeological resources. The existing Fire Station is not a designated historical structure/landmark.

Alternative 2, Expand Existing Facility

Under this alternative, improvements to the existing fire station would not cause adverse impact to historic structures or known archaeological resources. During construction, ground disturbing activities would be monitored. In the event human skeletal remains or historic or archaeological materials are discovered during construction, all ground disturbing activities on the project site would cease and the coroner's office (in the case of human remains), FEMA, and the IHPA would be notified.

Alternative 3, New Facility – 53 East Pershing Road (Proposed Action)

Under this alternative, construction of a new fire station would not cause adverse impacts to historic structures or known archaeological resources. Review of the HAARGIS database did not identify historic structures or residences on the Proposed Action Site or adjacent properties. A response was received from Ms. Anne Haaker, SHPO, which stated no historic properties, would be affected and therefore the IHPA does not have objections to the proposed project. A copy of the response from the SHPO is provided in Appendix C. Should human skeletal remains or historic or archaeological materials be discovered during construction, all ground-disturbing activities on the project site would

cease and the coroner’s office (in the case of human remains), FEMA, and the IHPA would be notified.

Tribal Coordination and Religious Sites

On November 6, 2000, President Clinton signed EO 13175, entitled, “Consultation and Coordination with Indian Tribal Governments”. The EO directs federal agencies, “to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes”.

Based on correspondence with Ms. Anne Haaker, SHPO, there are no known federally recognized Indian tribal groups in Illinois. A copy of the conversation record between PSI and the SHPO is provided in Appendix C. In addition, FEMA must also determine, in consultation with the SHPO and appropriate THPO, what effect, if any, the action will have on tribal religious sites or claims on land. Moreover, if the project would have an adverse effect on these properties, FEMA must consult with the SHPO and appropriate THPO on ways to avoid, minimize, or mitigate the adverse effect.

3.18 Comparative Analysis of Proposed Action and Alternatives

The following table summarizes the impacts and mitigation of Alternatives 2 and 3. Because Alternative 1 is a no action alternative and thus there is no impact, it has not been included in this table.

Impact and Mitigation Summary			
Affected Environment	Impacts Alternative 2 – Expand Existing Facility	Impacts Alternative 3 – New Facility (Proposed Action)	Mitigation
Geology, Seismicity, and Soils	No impact to seismicity or geology. Short-term impacts to soils would be mitigated by erosion control measures during construction. Approximately 1,000 cubic yards of earth excavation would be required to construct proposed building footings, sanitary sewer service, potable water service, and underground storm water runoff detention facility. All excess excavated soil will be trucked off-site and properly disposed of.	No impact to seismicity or geology. Short-term impacts to soils will be mitigated by erosion control measures during construction. Approximately 3,400 cubic yards of earth excavation is anticipated to construct proposed building footings, slab emplacement and environmental Site Remediation Program engineered barrier requirements sanitary sewer service, potable water service, and underground storm water runoff detention facility.	Appropriate BMPs (silt fence, erosion blanket, and prompt re-establishment of vegetative ground cover) would be used to minimize sedimentation and soil erosion.
Water Resources & Water Quality	No permanent impacts to surface and groundwater quality. Short-term impacts mitigated by erosion control measures. Storm water detention provided in accordance with the City of Chicago requirements for development. Storm water collected by onsite storm sewers, and connected to the municipal storm sewer systems during construction.	No permanent impacts to surface and groundwater quality. Short-term impacts mitigated by erosion control measures during construction. During and after development of the proposed fire station, storm water runoff detention provided in accordance with the City of Chicago requirements for development. Storm water collected by onsite storm sewers, and connected to the municipal storm sewer system on S. Wabash Avenue.	Appropriate BMPs (silt fence, erosion blanket, and prompt re-establishment of vegetative ground cover) would be used to minimize sedimentation and soil erosion.
Floodplains	No impacts anticipated.	No impacts anticipated.	None.

Impact and Mitigation Summary			
Affected Environment	Impacts Alternative 2 – Expand Existing Facility	Impacts Alternative 3 – New Facility (Proposed Action)	Mitigation
Air Quality	Short-term impacts from dust and emissions from equipment would occur during construction	Short-term impacts from dust and emissions from equipment would occur during construction	Dust control measures such as watering down construction areas would be implemented as needed. Fuel-burning equipment would be properly maintained.
Terrestrial and Aquatic Environments	Existing site consists of a building, pavement, and mowed grass with no standing water. Impacts to terrestrial environment would be negligible.	The proposed site consists of gravel and mowed grass with no standing water. Impacts to terrestrial environment would be negligible.	Remaining exposed areas after construction will be re-vegetated with grass and landscaped areas.
Wetlands	No impacts anticipated.	No impacts anticipated.	None.
Threatened and Endangered Species	No impacts anticipated.	No impacts anticipated.	None.
Hazardous Materials	No impacts anticipated.	Six USTs were identified and subsequently removed on the central portion on the Proposed Action Site; A leaking tank incident was reported to IEPA. A Corrective Action Plan has been submitted. In addition, non-hazardous concentrations of VOCs, PNAs and lead were identified above 35 IAC 742 soil remediation objectives in fill and native soil.	An IEPA Leaking Underground Storage Tank “No Further Remediation” letter will be obtained upon completion of improvements as described in an IEPA-accepted Corrective Action Plan. Other soil will be remediated to the appropriate state standards. If hazardous materials are discovered on site during construction, they will be disposed of in accordance with federal, state, and local requirements.
Zoning, Land Use and Transportation	No impacts anticipated.	No impacts anticipated.	None
Noise	Short-term impacts from heavy equipment would occur during construction.	Short-term impacts from heavy equipment would occur during construction. Long-term impacts would include increased traffic and siren noise from EMS vehicles.	Construction would be limited to normal business hours and noise levels would meet local, State, and Federal noise regulations. After construction, infrequent and short duration noise impacts from EMS vehicles would not significantly impact the 24-hour exposure levels regulated by the USEPA.
Public Services and Utilities	No impacts anticipated.	No impacts to utilities are anticipated. The new facility would enhance emergency response services in same area.	None.
Environmental Justice	No disproportionately high or adverse effect on minority or low-income populations is anticipated.	A positive effect on minority or low-income local population is anticipated.	None.
Public Health and Safety	Continually increasing traffic volumes would continue to have an increasing negative impact to the safety and security of the population, due to increasing emergency response times from the existing facility.	Proposed facility will have a positive impact on the safety and security of the residents in the Grand Boulevard Community by reducing emergency response times.	None.
Historic and Cultural Resources	No impacts anticipated.	No impacts anticipated.	None. If human skeletal remains or historic or archaeological materials are discovered during construction, all ground-disturbing activities would cease and the coroner’s office (in the case of human remains), FEMA, and the IHPA would be notified.

Based on the results of the impact analysis, Alternative 3 presents the least impact and would allow the CDF to meet the following needs:

- Shorten emergency response distances;
- Improve emergency response times;
- Upgrade technology;
- Meet National Fire Protection Association (NFPA) and International Organization for Standardization (ISO) standards;
- Improve multi-company operation times, including Rapid Intervention Teams (RIT);
- Enhance mutual aid capabilities; and
- Complete construction and be operational as soon as possible.

4.0 Cumulative impacts

Cumulative impacts on the environment result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. No other reasonably foreseeable developments were identified in the area other than the proposed project site.

5.0 Public Participation

FEMA is the lead Federal agency for conducting the NEPA compliance process for the proposed Engine Company 16 facility in Chicago, Cook County, Illinois. It is the goal of the lead agency to expedite the preparation and review of NEPA documents and to be responsive to the needs of the community and the purpose and need of the proposed action while meeting the intent of NEPA and complying with all NEPA provisions.

Interagency reviews have been conducted in the form of agency consultation letters and the responses received from the agencies. Applicable agency responses have not been received, with the exception of the response from the SHPO.

One public meeting has already been held (March 18, 2010) to inform the public of construction of the new fire station and the FEMA grant. Discussions with appropriate agency personnel indicated that this meeting was sufficient to comply with public participation requirements. A summary of presentation materials and the meeting can be found Appendix E.

6.0 Mitigation Measures and Permits

Permits will be required from the City of Chicago for construction and building occupation. It is anticipated that all soil overlying the existing foundation and slab will be excavated and hauled away to a landfill permitted to accept such waste. All USTs will have been removed following local and state regulations. A Corrective Action Plan has been filed with IEPA to address soil which may have been impacted by historic use of the removed USTs. The Corrective Action Plan states that appropriate engineering barriers will be constructed to eliminate any human exposure to underlying contaminants, consistent with mitigation measures identified in 35 IAC 742 and 734. Performing these measures enables the proposed development to result in a FONSI status for this NEPA project. Therefore, the preparation of an EIS would not be required.

7.0 Cited and Referenced Documents and Sources

U.S. Fish and Wildlife Service – <http://www.fws.gov>

National Wild and Scenic Rivers Program – <http://www.rivers.gov/index.html>

U.S. Fish and Wildlife National Wetland Inventory – <http://www.fws.gov/wetlands/>

Natural Resources Conservation Service Web Soil Survey –
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

United States Department of Agriculture Soil Survey for DuPage and Parts of Cook
Counties, 1979

U.S. Census Bureau – <http://www.census.gov>

U.S. Environmental Protection Agency Green Book -
<http://www.epa.gov/air/oaqps/greenbk/>

Illinois Department of Natural Resources –
<http://www.dnrecocat.state.state.il.us/ecopublic/>

Illinois State Geological Survey – <http://www.isgs.uiuc.edu>

City of Chicago – Water Department – Water Quality Results and Reports
<http://www.cityofchicago.org/city/en/depts/water.html>

Illinois Department of Natural Resources – Coastal Program - <http://dnr.state.il.us/cmp/>

U.S. Environmental Protection Agency Region 5 – Designated Sole Source Aquifers -
http://www.epa.gov/safewater/sourcewater/pubs/qrg_ssamap_reg5.pdf

FEMA Flood Insurance Rate Map, Cook County, Illinois, Panel 528 of 832, Map
Number 17031C0528J, August 19, 2008

FEMA. National Environmental Policy Act, FEMA Desk Reference. May 14, 1996.

Phase I ESA for Vacant Parcels at Southeast Corner of South Wabash & East 39th Street
(Pershing Road), Chicago, Illinois, Prepared by Environmental Protection Industries
(EPI), dated June 4, 2008

Limited Phase II ESA for TRC Senior Village Parking Lot at 45 E. Pershing Road),
Chicago, Illinois, Prepared by ECS Illinois, LLC, dated August 26, 2008

Phase I ESA Update for Vacant Parcels at Southeast Corner of South Wabash & East 39th Street (Pershing), Chicago, Illinois, Prepared by Environmental Protection Industries (EPI), dated March 19, 2010

Phase II ESA for Engine Company 16 at 3901-3959 South Wabash & 43-61 East 39th Street (Pershing), Chicago, Illinois, Prepared by Professional Service Industries, Inc, dated June 30, 2010

Phase II ESA Update for Vacant Parcels at Southeast Corner of South Wabash & East 39th Street (Pershing), Chicago, Illinois, Prepared by Environmental Protection Industries (EPI), dated October 1, 2010

45-DAY REPORT/CORRECTIVE ACTION PLAN, LPC #0316355095, Cook County, Chicago/Vacant (Future Engine Company 16), 53 East Pershing Road, LUST Incident #20100967. Prepared by Environmental Protection Industries (EPI), dated October 31, 2010.

Public Building Commission of Chicago Website (for Engine Company 16):
http://www.pbcchicago.com/content/projects/project_detail.asp?pID=07060

8.0 List of Preparers and Agencies Contacted

Preparers

- Jeff Goeden – Project Geologist – Professional Service Industries, Inc.
- Rachel Keane – Project Scientist – Professional Service Industries, Inc.
- Swain Munson – Principal Consultant – Professional Service Industries, Inc.

Agencies Contacted

- Illinois Historic Preservation Agency – State Historic Preservation Officer
- National Oceanic and Atmosphere Administration - Office of Ocean & Coastal Resource Management
- Illinois Department of Natural Resources – Office of Water Resources
- United States Department of Agriculture – Natural Resources Conservation Services
- U.S. Army Corps of Engineers – Chicago District
- Environmental Protection Agency – Water Division
- Illinois Environmental Protection Agency – Bureau of Water and Bureau of Land
- United States Fish & Wildlife – Region 3

APPENDIX A
MAPS AND FIGURES

APPENDIX B
SITE PHOTOGRAPHS

APPENDIX C
AGENCY COORDINATION

APPENDIX D TECHNICAL REPORTS

Environmental Reports will be Posted on FEMA
website:

<http://www.fema.gov/plan/ehp/envdocuments/ea-region5.shtm>

APPENDIX E
PUBLIC MEETING PRESENTATION

APPENDIX F

ACRONYMS