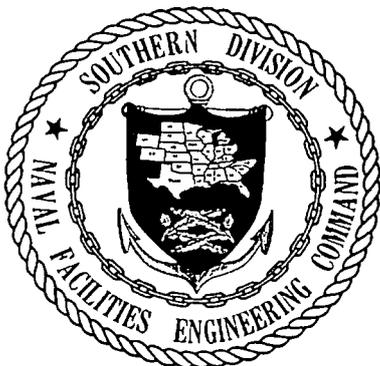




COVENANT
DEFERRAL
REQUEST

NAVAL
INDUSTRIAL
RESERVE
ORDNANCE
PLANT
(NIROP)

FRIDLEY,
MINNESOTA



NOVEMBER 1998

**COVENANT DEFERRAL REQUEST
FOR THE
NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
FRIDLEY, MINNESOTA**

INTRODUCTION

The Naval Industrial Reserve Ordnance Plant (NIROP) is a Government Owned/ Contractor Operated (GOCO) facility situated north of the Minneapolis/St. Paul metropolitan area. The Northern Pump Company built the facility in 1940. The original use of the facility was for the construction of 5-inch gun mounts for Navy vessels. In 1947, the government acquired a portion of the physical plant. In the 1950s, the focus of production shifted to ship-based guided missile launching systems. In 1994, the Armament Systems Division of United Defense Limited Partnership (UDLP) took over operation of the facility. UDLP currently operates the facility and continues to produce gun mounts and vertical launching systems.

The Navy has declared the NIROP to be excess federal property, thereby making the facility available for reutilization by non-federal, public and/or private entities. Environmental investigation and cleanup activities are continuing at the NIROP facility. Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. 9620(h)(3)(C), authorizes the United States Environmental Protection Agency (U.S. EPA) Administrator, with State Governor concurrence, to defer the requirement created by CERCLA Section 120(h)(3)(A)(ii)(I) that each deed entered into for the transfer of federal property to any person or entity contain a covenant warranting that all necessary hazardous substance remediation has been completed prior to transfer. The Navy hereby requests that the U.S. EPA Region V Administrator determine, with the concurrence of the Governor of Minnesota, that the property is suitable for transfer and that this covenant may be deferred. Once the deferral request is granted, the General Services Administration (GSA) will proceed to convey the property while the Navy completes all necessary site remediation efforts. In accordance with CERCLA Section 120(h)(3)(B), this covenant deferral request pertains solely to the transfer of this facility to a non-Potentially Responsible Party.

I. Description of Property to be Transferred by Deed:

The property to be transferred by deed is an 82.60 acre site in the City of Fridley, Anoka County, Minnesota (Property). The Property is bounded on the west by East River Road, on the east by Burlington Northern Rail Yard on the south by UDLP, and on the north by various privately owned industrial facilities. The NIROP includes land and buildings, which contain 1,712,904 square feet of floor space, the majority of which is located within one main industrial building. A legal description of the Property at the NIROP is described by the Boundary and Building Location Survey provided as Exhibit A.

II. Nature and Extent of Contamination Impacting the Property:

For environmental investigation and cleanup purposes, the NIROP has been divided into three Operable Units (OUs). OU #1 encompasses groundwater contamination. OU #2 encompasses unsaturated source contamination outside the main industrial building. OU #3 encompasses source contamination beneath the main industrial building and saturated source contamination outside the main industrial building. Descriptions of the operable units are given below. The Remedial Investigation (RI) for OU#1 and OU#2 are complete. The RI for OU#3 is underway. Exhibit B provides a layout of the Operable Units at the NIROP site as further described below.

a. OU #1:

Sixty-three (63) groundwater monitoring wells were installed from 1985 to 1996 and 18 additional wells were installed in the fall of 1997 to assess the condition of groundwater. These wells were installed both on and off Navy property. The wells are shallow, intermediate, and deep, and were installed in the surficial aquifer. Wells are also installed in the Prairie du Chien/Jordan Dolomite aquifer. Of the 81 total wells, 44 are currently sampled on a regular basis under a Remedial Action Monitoring Plan (RAMP).

Elevated concentrations of Volatile Organic Compounds (VOCs) have been detected in the groundwater throughout the Navy property and extending off-property to Anoka County Riverfront Park, with trichloroethene (TCE) being the primary constituent of concern. TCE concentrations beneath the Navy property range from less than 1 parts per billion (ppb) to 140,000 ppb. TCE concentrations up to 37,300 ppb have been recorded off Navy property in Anoka County Riverfront Park. The condition of off-property groundwater at Anoka County Park was further evaluated during an investigation conducted in December, 1997, and revealed elevated concentrations of TCE in screening samples up to 37,300 ppb in a 200 by 400 foot area adjacent to East River Road.

b. OU #2:

The only portion of OU #2 that remains a potential concern is an area of unsaturated soils located north of the main industrial plant known as the North 40. The North 40 contained waste disposal pits and trenches. Drums and impacted soils were removed and disposed of during three separate removal actions in 1983, 1991, and 1996. The OU #2 RI (completed in 1993) evaluated unsaturated soils to a depth of 20 feet. Like OU #1, VOCs, with TCE in particular, are the primary contaminants of concern. In general, concentrations of TCE in the North 40 were found to be in the range of 10 to 100 ppb. TCE contamination in excess of 200 ppb was found in small, localized areas, with the highest concentrations found in shallow soils (1 - 5 foot depths). In conjunction with the 1996 drum removal effort, samples

taken at the bottom of the excavation pits were generally non-detect for TCE. There was a single sample with an elevated TCE concentration of 96,000 ppb at an approximate depth of 12 feet.

c. OU #3:

An investigation of soils and groundwater beneath the plating shop within the main industrial building was conducted in 1995. This investigation revealed that soils and shallow groundwater are contaminated primarily with TCE. TCE concentrations from 4 to 100,000 ppb were detected in soil. TCE concentrations ranging from 1,200 to 140,000 ppb were detected in shallow ground water. The highest soil concentrations were found adjacent to a former sump at an approximate depth of 13 feet and the highest groundwater concentration was found slightly down gradient from the former sump at the top of the surficial groundwater table, at approximately 16 feet below the plating shop floor.

A RI is being conducted to assess the condition of soils and groundwater beneath the Navy owned portion of the main industrial building. Field efforts were completed by the end of April 1998. A Draft OU #3 RI Report was issued August 1998. The RI indicates that several VOCs (primarily chlorinated hydrocarbons, aromatics and ketones) were detected in soils, with the highest concentrations found beneath the plating shop. Several semi-volatile organic compounds (SVOC), primarily polyaromatic hydrocarbons (PAH) were also detected in soils ranging from 10 to 5,600 ppb. Metals, such as arsenic, chromium, copper and mercury were also detected in soils. Chlorinated hydrocarbons were the primary chemicals detected in groundwater samples.

III. Analysis of Intended Future Use:

The property is exclusively industrial and it is expected to remain so. The NIROP and surrounding areas are zoned for industrial uses, as shown in Figure O-1 of the Comprehensive Plan, City of Fridley, dated August 1982. Acknowledgement of its expected continued use as an industrial facility is documented in a U.S. EPA Region V letter to the City of Fridley dated March 4, 1997. These documents are included in Exhibit C.

IV. Risk Analysis:

With appropriate institutional controls in place, reuse of the NIROP for industrial purposes would not present a reasonable likelihood of exposure to TCE or other contaminants of concern by workers and others present at the site. Contaminated soils beneath the buildings are not readily accessible due to the presence of thick concrete flooring. Although the ground water beneath the NIROP poses

unacceptable exposure risks, it is not currently used for either drinking or process water purposes. Although data from the Draft OU #3 RI indicates risk associated with future industrial use of OU #2 and OU #3 is acceptable, this conclusion has not yet been concurred in by the U.S. EPA and the MPCA. The U.S. EPA and the MPCA are currently reviewing the Draft OU #3 RI Report and are expected to provide comment by the end of December 1998. The following further summarizes the currently known risks associated with each operable unit:

a. OU # 1

TCE contamination of the surficial aquifer beneath the property and off-property remains above the Maximum Concentration Limit (MCL) of 5 ppb for protection of human health. Although the groundwater from the surficial aquifer is not currently used for drinking water, Minnesota law requires that contaminated groundwater be restored to potability. In addition, the Record of Decision (ROD) for groundwater remediation (OU #1) recognizes that all groundwater be restored to MCLs to provide for the protection of future potential users of such waters. Because groundwater beneath the NIROP facility is not used as a potable or process water source, there is currently no risk from worker exposure to groundwater in excess of the MCL.

Based on the off-property groundwater concentrations detected adjacent to the river, off-property concentrations of TCE discharged to the river are in excess of the Minnesota Pollution Control Agency (MPCA) and U.S. EPA drinking water standard (5 ppb). This groundwater also exceeds MPCA aquatic life standards (25 ppb). While off property contamination is not applicable to this Covenant Deferral Request, the Federal Facilities Agreement (FFA), between the Navy, U.S.EPA and the MPCA, dated 28 March 1991, requires the Navy to address that groundwater contamination which has migrated off of Navy property.

b. OU #2

The risk to human health from exposure to the top 12 feet of contaminated soils located outside the main industrial building has been documented as acceptable for future industrial but not for residential use. These findings are documented in the OU #2 RI Report, dated September 1993.

c. OU #3

Data from the Draft OU #3 RI, has been submitted to the MPCA and the U.S. EPA and is awaiting their review. The draft report indicates that continued industrial use presents no risk to the utility or construction worker from exposure to the top 12 feet of contaminated soil. To eliminate any potential risk to workers and other personnel at the site, pre-excavation precautions including adequate personal protective equipment and media

screening are currently in place. Appropriate restrictions in the deed with respect to disturbance of contaminated soils beneath the main industrial building will insure continued protection of the health of the workers.

V. Response/Corrective Action and Operation and Maintenance Requirements:

The U.S. EPA placed NIROP on the National Priorities List (NPL) on November 21, 1989. Cleanup activities at the NIROP are being conducted in accordance with the Federal Facilities Agreement. The Navy intends to continue the investigation and cleanup of the NIROP in accordance with the requirements of the FFA. OU #1, OU #2, and OU #3 will need continued investigation, remedial action and Long Term Operation/Long Term Monitoring (LTO/LTM) in order to fulfill the objectives in the FFA. The following summarizes the status of each OU:

a. OU #1:

On September 28, 1990, the Navy, U.S. EPA and the MPCA signed the OU #1 ROD for groundwater remediation. The ROD established a two-phase remedy. The first phase called for the installation and operation of extraction wells to prevent further migration of contaminated groundwater from the NIROP and discharge of the extracted water to the local sanitary sewer. The second phase called for the on-site treatment of extracted groundwater to allow discharge of treated groundwater to the Mississippi River via an outfall permitted under the National Pollutant Discharge Elimination System (NPDES). The ROD stated that groundwater contamination beyond the capture zone of the extraction system was expected to dissipate over time. Natural dissipation has not occurred as envisioned by the ROD.

The extraction system began operation in September 1992 and was upgraded in 1995 with the addition of two extraction wells. The NIROP Groundwater Numerical Model (GNM) is currently being revised and it is expected that the results will provide a better delineation of the capture zone.

The second phase of the Groundwater Treatment Facility (GWTF) has recently been completed. It provides for extraction and treatment of contaminated ground water to allow for the discharge of treated groundwater directly to the Mississippi River in accordance with the discharge limits defined in the NPDES permit. The GWTF became operational in the fall of 1998 and is now in the LTO/LTM phase. Operation and maintenance functions to ensure the continued successful operation of the groundwater remedy will continue until either the groundwater is restored to the MCLs or an asymptotic level of groundwater contamination is reached as prescribed by the ROD. The Navy is currently refining the NIROP GNM, which should assist in predicting when cleanup goals will be achieved.

A Five Year Review of the OU #1 remedy has been completed. The Five Year Review recommends that the Navy determine whether the present groundwater capture system is achieving substantial hydraulic containment, thereby preventing further off-property migration of contaminated groundwater. The review will be based on the chemical and physical groundwater data and the revised GNM. Future evaluations may result in the expansion of the groundwater extraction system and treatment of off-property groundwater contamination or both. It is anticipated that any required expansion to the groundwater extraction system or any required treatment of off-property groundwater contamination would be in place by September 2000.

b. OU #2:

Although the Navy initially prepared and submitted a Feasibility Study Report for OU #2 to the U.S. EPA and MPCA, the MPCA subsequently requested that the Navy stop the FS process for this OU so as to evaluate whether the remedial efforts for both OU#2 and #3 could be considered together. The NIROP Partnering Team subsequently agreed to reassess remedial alternatives for OU #2 in conjunction with potential remedial alternatives for OU #3 and consider the possibility of implementing a combined remedy for the two. This process may postpone the selection of a remedy until November 2001.

c. OU #3:

The Draft RI for OU #3 was issued August 1998. A combined OU #2/OU #3 remedy selection is expected by November 2001. LTO/LTM activities will continue to be required until cleanup goals are achieved.

VI. Contents of Deed/Transfer Agreement:

a. Contents of the Deed:

As required by CERCLA Section 120(h)(3)(A), the Navy shall include the following language in the deed. The Navy may make minor, non-substantive changes in the language, but shall advise the U.S. EPA and the MPCA of such changes prior to closing.

(i). Notice:

In accordance with CERCLA Section 120(h)(3)(A)(i), notice is provided that, based upon a complete search of agency files, the attached summary identifies those hazardous substances known to have been stored for one year or more on the Property, the date

such storage and a description of any remedial action(s) taken. Exhibit D to this deed summarizes this information.

Based on a complete search of agency files, trichloroethene (TCE) was the only hazardous substance found to have been released or disposed of in excess of reportable quantities. Release or disposal of TCE occurred between 1940 and 1987. However, several other volatile organic compounds, semivolatile organic compounds, metals, and polychlorinated biphenyls have been detected in soil and groundwater. The Remedial Investigation Report for Operable Unit #3 provides information regarding other constituents found in the soil and groundwater.

(ii). Covenant:

Grantor warrants that it shall take any additional response action found to be necessary by U.S.EPA, MPCA, or other applicable regulatory authority after the date of conveyance regarding hazardous substances located on the Property on the date of this conveyance. This covenant shall not apply in any case in which: (1) the Grantee (or its successors and assigns) of any of the Property is a potentially responsible party (PRP) with respect to the Property; or (2) any response action required is the result of an act or failure to act of the Grantee which results in a release of hazardous substances after the date of conveyance.

(iii). Access:

Grantor reserves a right of access to all portions of the Property for environmental investigation, remediation or other corrective action. This reservation includes the right of access to and use of, to the extent permitted by law, available utilities at reasonable cost to the Grantor. These rights shall be exercisable in any case in which a remedial action, response action or corrective action is found to be necessary by the U.S. EPA, MPCA, or other applicable regulatory authority after the date of conveyance of the Property, or in which access is necessary to carry out a remedial action, response action or corrective action on adjoining property. Pursuant to this reservation, the United States, the State of Minnesota, the U.S. EPA, and the MPCA and their officers, agents, employees, contractors and subcontractors shall have the right (upon reasonable notice to the Grantee or the then owner and any authorized occupant of the Property) to enter upon the Property and conduct investigations and surveys, to include drillings, test-pitting, borings, data and record compilation, and other activities related to environmental investigation and to carry out remedial or removal actions as required or necessary under applicable authorities, including but not limited to

monitoring wells, pumping wells, and treatment. Any such entry, including such activities, responses or remedial actions, shall be coordinated with the Grantee or its successors, assigns, and tenants and shall be performed in a manner which minimizes interruption with Grantee's activities on the Property.

(iv). Response Action Assurances:

1. The Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property or part thereof, that it shall not construct or permit to be constructed any well, and shall not extract, utilize, consume or permit to be extracted, any water from the aquifer below the surfaces of the ground within the boundary of the Property for the purpose of human consumption, or other use, unless such groundwater has been tested and found to meet applicable standards for human consumption, or such other use, and such owner or occupant shall first have obtained written approval of the Navy and the appropriate agencies of the State of Minnesota. The costs associated with obtaining use of such water, including, but not limited to, the costs of permits, studies, analysis or remediation, shall be the sole responsibility of the owner, its successors and assigns, without cost whatsoever to the Grantor.
2. The Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that it will not breach the concrete floor or excavate, dig, drill or cause other disturbance of the soils within the main industrial building or within the North 40 without prior approval of the Navy.
3. Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that a party occupying the Property shall not hinder or prevent the Navy from properly constructing, upgrading, operating, maintaining and monitoring any groundwater treatment facilities or groundwater monitoring network or engage in any activity that will disrupt or hinder required remedial investigations, response actions or oversight activities on the Property or adjoining property.
4. Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that use of the property shall be limited to nonresidential industrial uses except for any office or similar use incidental to industrial use if such incidental use is permitted by applicable regulatory authorities without requiring further environmental remediation beyond that required for industrial use. Prohibited residential uses include, but are not limited to, any child care, pre-school, playground and any form of housing.

In the event the Grantee or any successor(s) or assign(s) desire to use the property for any use other than industrial use, then Grantee or its successor(s) or assign(s) shall perform all additional environmental remediation required by law or applicable regulatory authorities for such other uses and shall further comply with all laws, rules, regulations and ordinances pertaining thereto, including but not limited to zoning requirements and the requirements of all applicable regulatory authorities. All costs associated with any such additional environmental remediation necessary for other than industrial use shall be the sole responsibility of the owner, its successors and assignees, without cost whatsoever to the Grantor.

b. Contents of the Transfer Agreement:

As required by CERCLA Section 120(h)(3)(C)(i)(II), the Navy shall include the following language in the transfer agreement.

- (i). All necessary response actions will be taken by the Navy in accordance with schedules approved by the U.S.EPA and the MPCA. Schedules for completing response actions will be reviewed by the Navy, U.S. EPA and MPCA and updated as necessary as part of the annual update of the Site Management Plan for environmental remediation.
- (ii). The Navy shall submit on an annual basis through established channels, appropriate budget requests to the Director of the Office of Management and Budget that adequately address those agreed upon schedules for investigation and completion of all necessary response actions required by the FFA. The actual amount available for such effort is subject to congressional authorizations and appropriations.
- (iii). In accordance with CERCLA Section 120(h)(3)(C)(iii), when all response actions necessary to protect human health and the environment with respect to any substance remaining on the property on the date of transfer has been taken, including any institutional controls that are part of the final response action, the United States shall execute and deliver to the transferee an appropriate document containing a warranty that all such response action has been taken.

VII. Responsiveness Summary:

During the public comment period, the Navy received no comments from the public on the draft Covenant Deferral Request. The Navy did receive written comments from the MPCA which are attached hereto as Exhibit E. These comments were incorporated into this final request.

VIII. Transferee Response Action Assurances and Agreements:

A Transferee has not yet been identified. The Navy does not contemplate that the Transferee will assume response actions. If this should change, the Navy shall provide the U.S. EPA and the MPCA with all agreements, assurances, and other documents signed by the Transferee demonstrating that the Transferee is legally obligated to conduct the required response actions in accordance with the FFA.

Under the FFA, the Navy retains responsibility for the completion of all necessary response actions at the NIROP.

IX. Effect of Covenant Deferral Request:

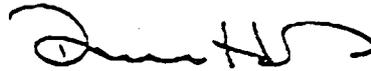
Nothing in this Covenant Deferral Request shall be construed to alter the Navy's obligation to complete all necessary response actions in accordance with the FFA entered into by the Navy, the U.S. EPA, and the MPCA or under applicable federal or state law.

X. Suitability Declaration:

As the cognizant Department of Defense (DoD) official authorized to make such determination, I, the undersigned, hereby declare that under the proposed land-use conditions and deed restrictions to be employed, the NIROP Fridley property described in this document is suitable for transfer to a willing and complying buyer.

8 Dec 98

Date



DUNCAN HOLADAY
Deputy Assistant Secretary
(Installations and Facilities)

EXHIBIT A

PARCEL AREAS:
 FMC (Parcels I and II): 2,411,904 sq. ft. or 55.370 acres
 USA Parcel: 3,500,145 sq. ft. or 80.352 acres

FMC PARCEL I
 Revised September 8, 1994

That part of the South Half of Section 27, Township 30, Range 24, Anoka County, Minnesota described as follows:

Commencing at the southeast corner of said Section 27; thence on an assumed bearing of South 89 degrees 47 minutes 23 seconds West, along the south line of said Section 27, a distance of 1444.62 feet to the point of beginning of the land to be described; thence North 3 degrees 33 minutes 01 second East, at 2125.55 feet passing through a found bronze monument, and continuing in all a distance of 2126.03 feet; thence North 89 degrees 22 minutes 47 seconds West a distance of 69.28 feet to the centerline of a building wall in place as of January 1993; thence South 0 degrees 37 minutes 13 seconds West, along said last mentioned wall centerline, a distance of 1.83 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 84.64 feet; thence South 0 degrees 37 minutes 13 seconds West a distance of 5.05 feet; thence North 89 degrees 22 minutes 47 seconds West a distance of 249.59 feet; thence South 0 degrees 37 minutes 13 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 25.45 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 100.28 feet; thence North 0 degrees 37 minutes 13 seconds East, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 24.93 feet; thence North 0 degrees 37 minutes 13 seconds East a distance of 2.15 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 225.02 feet; thence South 0 degrees 37 minutes 13 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 13.52 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 20.76 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 296.28 feet; thence South 0 degrees 37 minutes 13 seconds West, a distance of 10.52 feet; thence North 89 degrees 22 minutes 47 seconds West a distance of 190.55 feet; thence North 23 degrees 23 minutes 13 seconds West a distance of 602.34 feet to the north line of said South Half of Section 27; thence North 89 degrees 22 minutes 47 seconds West, along said right-of-way line, a distance of 190.55 feet; thence North 23 degrees 23 minutes 13 seconds West a distance of 602.34 feet to the north line of said South Half of Section 27; thence North 89 degrees 22 minutes 47 seconds West, along said right-of-way line, a distance of 547.48 feet to the point of beginning.

FMC PARCEL II
 Revised September 8, 1994

That part of the North Half of Section 27, Township 30, Range 24, Anoka County, Minnesota, described as follows:

Commencing at the southeast corner of said Section 27, thence on an assumed bearing of South 89 degrees 47 minutes 23 seconds West, along the south line of said Section 27, a distance of 1444.62 feet to the intersection with the easterly right-of-way line of East River Road (county state-aid highway No. 1); thence North 23 degrees 23 minutes 13 seconds West, along said right-of-way line, a distance of 2911.03 feet to the intersection with the south line of said North Half of Section 27, said point being the point of beginning of the land to be described; thence continuing North 23 degrees 23 minutes 13 seconds West, along said right-of-way line, a distance of 16.33 feet to a point distant 100 feet easterly, as measured perpendicularly, from a tangent-spiral point on the centerline of said East-River-Road, thence along said right-of-way line, being a line parallel to and distant 100 feet easterly of a spiral curve on said highway centerline, which centerline spiral curve is concave easterly and has a length of 150 feet and a central angle of 2 degrees 15 minutes 00 seconds, to a point distant 100 feet easterly, measured radially, from a spiral-curve point on said highway centerline (the chord of said last-described parallel line bears North 22 degrees 36 minutes 49 seconds West and has a length of 146.06 feet); thence along said right-of-way line, being a circular curve concave easterly and having a radius of 1809.86 feet, a central angle of 23 degrees 39 minutes 00 seconds, and a chord of 737.13 feet bearing North 9 degrees 23 minutes 13 seconds West, an arc distance of 742.32 feet to a point distant 100 feet easterly, measured radially, from a curve-spiral point on said highway centerline (the chord of said right-of-way line being a line parallel to and distant 100 feet easterly of a spiral curve on said highway centerline, which centerline spiral curve is concave easterly and has a length of 150 feet and a central angle of 2 degrees 15 minutes 00 seconds, to a point distant 100 feet easterly, measured perpendicularly, from a spiral-tangent point on said highway centerline (the chord of said last-described parallel line bears North 2 degrees 52 minutes 24 seconds East and has a length of 146.06 feet); thence North 4 degrees 36 minutes 47 seconds East, along said right-of-way line, a distance of 320.31 feet; thence South 88 degrees 58 minutes 35 seconds East a distance of 85.20 feet; thence South 0 degrees 39 minutes 06 seconds West a distance of 997.85 feet to a point distant 150 feet easterly, measured radially, from the aforementioned centerline of East River Road (county state-aid highway No. 1), from which point a found bronze monument bears North 74 degrees 51 minutes 31 seconds East a distance of 0.39 feet; thence along a nontangential circular curve, concave easterly and having a radius of 1759.86 feet, a central angle of 5 degrees 59 minutes 44 seconds, and a chord of 184.07 feet bearing South 18 degrees 08 minutes 21 seconds East, an arc distance of 184.15 feet to a point distant 150 feet easterly, measured radially, from a spiral-curve point on said highway centerline; thence along a line parallel to and distant 150 feet easterly of a spiral curve on said highway centerline, which centerline spiral curve is concave easterly and has a length of 150 feet and a central angle of 2 degrees 15 minutes 00 seconds, to a point distant 150 feet easterly, measured perpendicularly, from a tangent-spiral point on said highway centerline (the chord of said last-described parallel line bears South 22 degrees 39 minutes 08 seconds East and has a length of 144.10 feet); thence North 23 degrees 23 minutes 13 seconds East a distance of 38.46 feet to the south line of said North Half of Section 27; thence North 89 degrees 10 minutes 33 seconds West, along said south line, a distance of 54.68 feet to the point of beginning.

USA PARCEL
 Revised September 8, 1994

That part of Section 27, Township 30, Range 24, Anoka County, Minnesota, described as follows:

Commencing at the southeast corner of said Section 27, thence on an assumed bearing of South 89 degrees 47 minutes 23 seconds West, along the south line of said Section 27, a distance of 1444.62 feet; thence North 3 degrees 33 minutes 01 second East, at 2125.55 feet, passing through a found bronze monument, and continuing in all a distance of 2126.03 feet to the point of beginning of the land to be described; thence North 89 degrees 22 minutes 47 seconds West a distance of 69.28 feet to the centerline of a building wall in place as of January 1993; thence South 0 degrees 37 minutes 13 seconds West, along said last mentioned wall centerline, a distance of 1.83 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 84.64 feet; thence South 0 degrees 37 minutes 13 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 249.59 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 25.45 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 100.28 feet; thence North 0 degrees 37 minutes 13 seconds East, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 24.93 feet; thence North 0 degrees 37 minutes 13 seconds East a distance of 2.15 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 225.02 feet; thence South 0 degrees 37 minutes 13 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 13.52 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 20.76 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 296.28 feet; thence South 0 degrees 37 minutes 13 seconds West, a distance of 10.52 feet; thence North 89 degrees 22 minutes 47 seconds West a distance of 190.55 feet; thence North 23 degrees 23 minutes 13 seconds West a distance of 602.34 feet to the north line of said South Half of Section 27; thence North 89 degrees 22 minutes 47 seconds West, along said right-of-way line, a distance of 190.55 feet; thence North 23 degrees 23 minutes 13 seconds West a distance of 602.34 feet to the north line of said South Half of Section 27; thence North 89 degrees 22 minutes 47 seconds West, along said right-of-way line, a distance of 547.48 feet to the point of beginning.

USA PARCEL, continued:

thereof, of a building wall in place as of January 1993, a distance of 13.52 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 100.40 feet; thence North 0 degrees 37 minutes 13 seconds East, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 20.76 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 296.28 feet; thence South 0 degrees 37 minutes 13 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 84.64 feet; thence South 0 degrees 37 minutes 13 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 249.59 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 25.45 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 100.28 feet; thence North 0 degrees 37 minutes 13 seconds East, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 24.93 feet; thence North 0 degrees 37 minutes 13 seconds East a distance of 2.15 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 225.02 feet; thence South 0 degrees 37 minutes 13 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 13.52 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 20.76 feet; thence North 89 degrees 22 minutes 47 seconds West, along the centerline and the extension thereof, of a building wall in place as of January 1993, a distance of 296.28 feet; thence South 0 degrees 37 minutes 13 seconds West, a distance of 10.52 feet; thence North 89 degrees 22 minutes 47 seconds West a distance of 190.55 feet; thence North 23 degrees 23 minutes 13 seconds West a distance of 602.34 feet to the north line of said South Half of Section 27; thence North 89 degrees 22 minutes 47 seconds West, along said right-of-way line, a distance of 190.55 feet; thence North 23 degrees 23 minutes 13 seconds West a distance of 602.34 feet to the north line of said South Half of Section 27; thence North 89 degrees 22 minutes 47 seconds West, along said right-of-way line, a distance of 547.48 feet to the point of beginning.

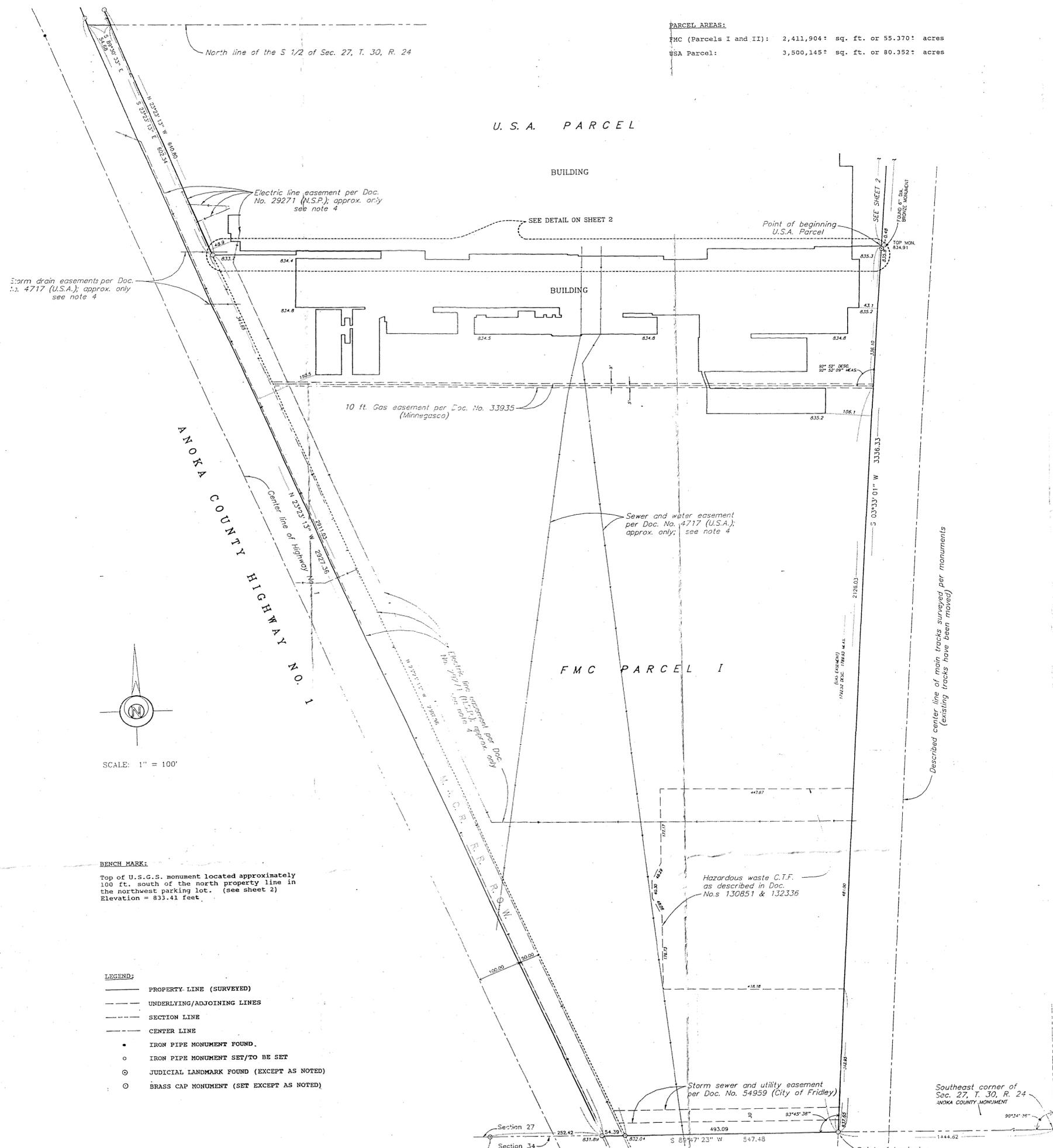
NOTES:

- All dimensions are in feet and decimals unless otherwise indicated. Dimensions under five feet are not necessarily drawn to scale. Orientation of this bearing system is assumed.
- Portions of boundary line are described as parallel to spiral curves on highway centerline. Land area contained within lines parallel to spiral curves cannot be precisely calculated as no mathematical formula exists.
- Legal descriptions are per Court Orders dated Aug. 12, 1994, directing issuance of new Certificates of Title.

- Documents Nos. 4717 and 29271 create easements for sewer and water lines and for electric transmission lines, respectively. Lines shown here are scaled from drawing exhibits in the two Documents. No field check was performed to determine whether utility lines exist as shown, or to verify their location; therefore this information should be used for reference only. No easement widths are given in the documents.
- FMC appears to have the right to joint use of the sewer and water lines, including some off-site connections, which are the subject of the easements per Document No. 4717.
- Improvements other than buildings are not shown. Utility lines shown represent only the easements referred to in Note 4; it has not been verified whether actual utility lines exist in these locations. Other existing utility lines are not shown.

STATE LAW: 48 HOURS BEFORE EXCAVATING, CALL GOPHER ONE-CALL, 454-0002, FOR FIELD LOCATION OF UNDERGROUND UTILITY LINES. This is a free service which locates utility-company lines but does not locate privately-owned lines. Extensive privately-owned underground utility lines are likely to exist on site; these should be located by contract locating services or by other suitable methods before excavating.

		2815 Wyzata Blvd. Minneapolis, MN 55405 (612) 374-4740 Consulting Engineers Land Surveyors		CODE IDENT 44114
BOUNDARY AND BUILDING LOCATION SURVEY FMC-4800 EAST RIVER ROAD-MINNEAPOLIS, MN				
I hereby certify that this survey was prepared by me or under my direct supervision, and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota. 		SCALE: SEE DRAWING DATE: JAN. 13, 1993 SHEET 1 OF 2 SHEETS		
REVISIONS 1-27-93... 4-4-93... 5-17-94... 6-21-94... 9-9-94...		DATE BY JANUARY, 1993 4769 FE-125.7A SHEET 1 OF 2		



SCALE: 1" = 100'

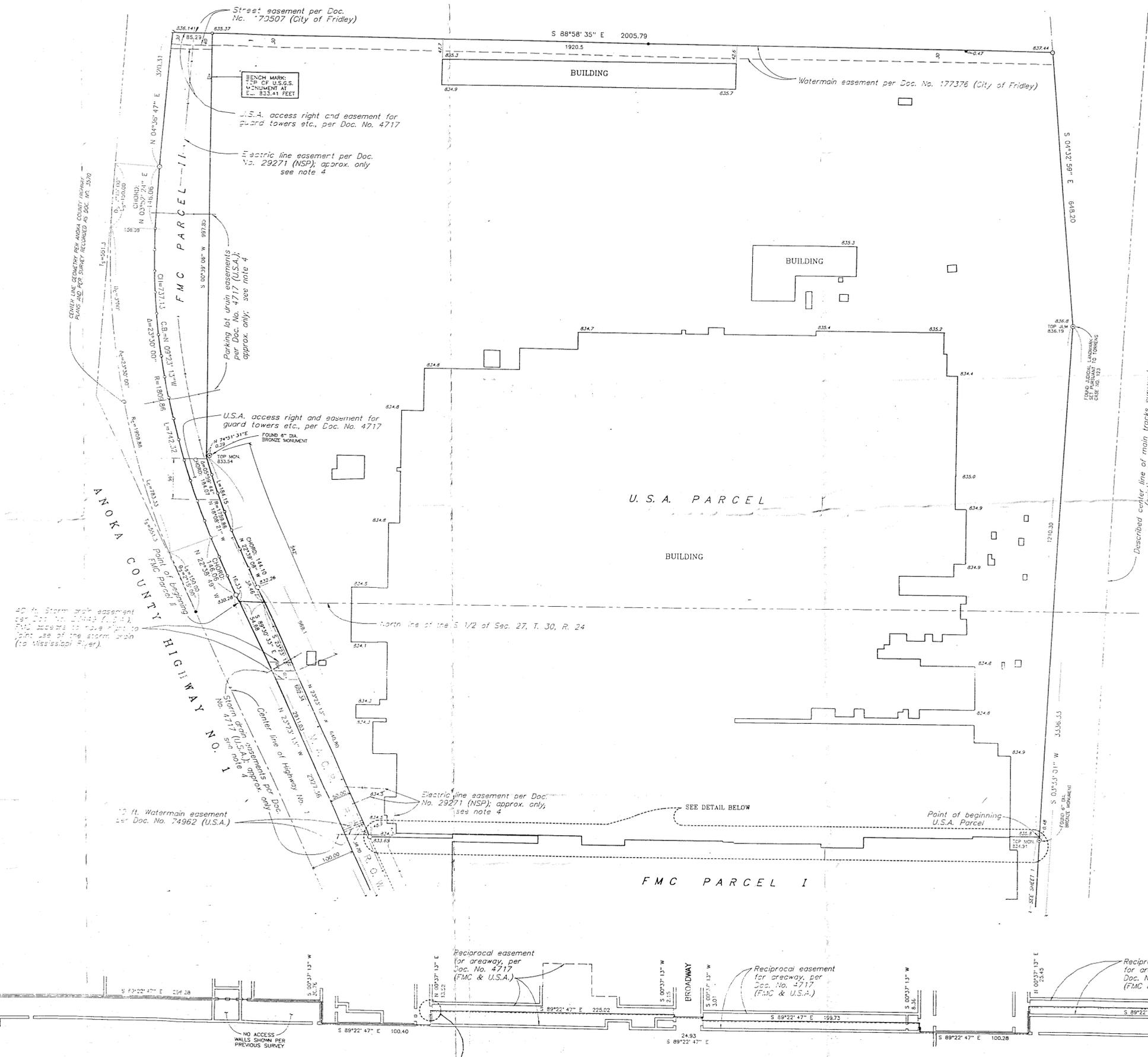
BENCH MARK:
 Top of U.S.G.S. monument located approximately 100 ft. south of the north property line in the northwest parking lot. (see sheet 2)
 Elevation = 833.41 feet.

- LEGEND:
- PROPERTY LINE (SURVEYED)
 - UNDERLYING/ADJOINING LINES
 - SECTION LINE
 - CENTER LINE
 - IRON PIPE MONUMENT FOUND
 - IRON PIPE MONUMENT SET/TO BE SET
 - JUDICIAL LANDMARK FOUND (EXCEPT AS NOTED)
 - BRASS CAP MONUMENT (SET EXCEPT AS NOTED)

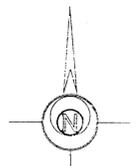
ANOKA COUNTY MONUMENT ON SOUTH LINE OF SEC. 27

Point of beginning FMC Parcel I

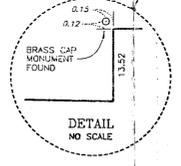
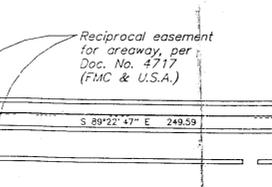
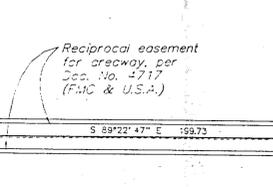
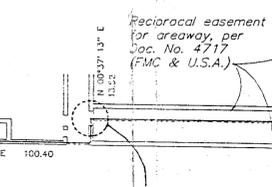
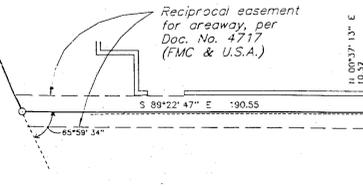
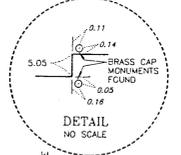
Described center line of main tracks surveyed per monuments (existing tracks have been moved)



- LEGEND:**
- PROPERTY LINE (SURVEYED)
 - PROPERTY LINE MARKED WITH SAW CUT
 - - - UNDERLYING/ADJOINING LINES
 - - - SECTION LINE
 - - - CENTER LINE
 - IRON PIPE MONUMENT FOUND
 - IRON PIPE MONUMENT SET/TO BE SET
 - ⊙ JUDICIAL LANDMARK FOUND (EXCEPT AS NOTED)
 - BRASS CAP MONUMENT (SET EXCEPT AS NOTED)



SCALE: 1" = 100'



DETAIL OF FMC-USA BOUNDARY AND BUILDING WALLS
SCALE: 1" = 40'

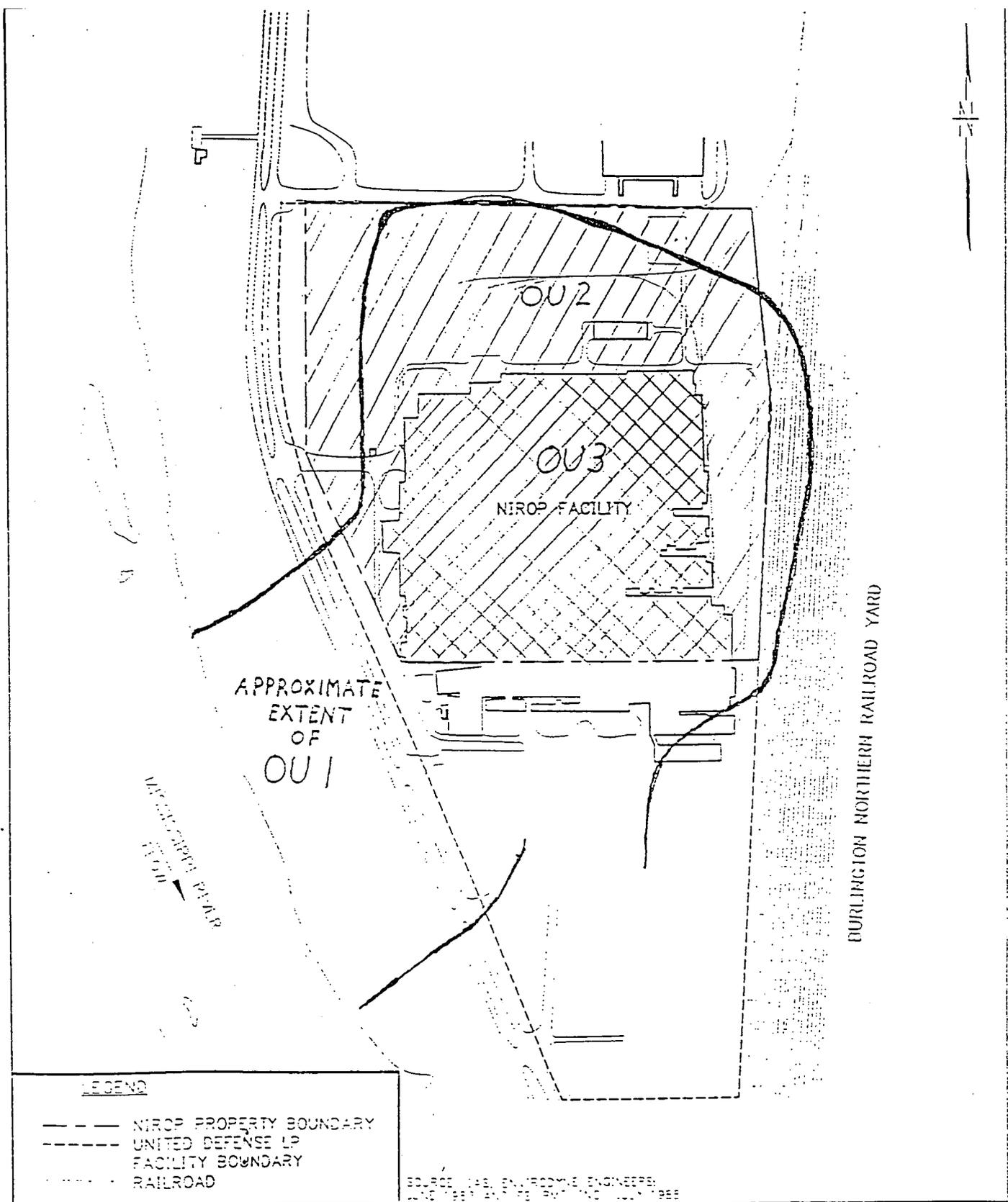
(WALLS ARE 1.0 FT. +/- THICK; WALL THICKNESS SHOWN EXAGGERATED FOR CLARITY)
ALL WALLS LOCATED ON BOUNDARY LINES ARE PARTY WALLS PER DOC. NO. 4717. THIS DOCUMENT ALSO CREATES RECIPROCAL BUILDING RESTRICTIONS ON BOTH SIDES OF EAST-WEST BOUNDARY LINES IN THIS AREA. STRUCTURES EXISTING AS OF SEPTEMBER 16, 1947 EXEMPT.

CLARK ENGINEERING CORPORATION
2815 Wyzata Blvd.
Minneapolis, MN 55405
(612) 374-4740
Consulting Engineers
Land Surveyors
CLARK DWG #92154

I hereby certify that this survey was prepared by me or under my direct supervision, and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.
John V. Chaffee
Reg. No. 5278
Date: 11/13/1992

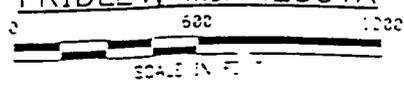
FMC Corporation Northern Ordinance Division Minneapolis, Minnesota, 55421		CODE IDENT 44114
BOUNDARY AND BUILDING LOCATION SURVEY FMC-4800 EAST-RIVER ROAD-MINNEAPOLIS, MN		
SCALE SEE DRAWING	REVISIONS	DATE JANUARY, 1993
DWG BY PEN	1-27-93... PEN/JVC	CKD BY J.V.C.
S.O. NUMBER	5-1-93... PEN/JVC	DRAWING NUMBER
	5-4-93... PEN/JVC	4770
	3-17-94... PEN/JVC	FE-1135,7A
	6-21-94... PEN/JVC	SHEET 2 OF 2
2 OF 2 SHEETS	9-9-94... DUN/JVC	(AFFECTS SHEET 1 ONLY)

EXHIBIT B



PROPERTY BOUNDARIES
 NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
 FRIDLEY, MINNESOTA

FIGURE 2-2



Brown & Root Environmental

EXHIBIT C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

MAR 04 1997

Mr. William W. Burns
City Manager
City of Fridley Municipal Center
6431 University Ave. N.E.
Fridley, MN 55432

SR-6J

RE: Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota

Dear Mr. Burns:

Thank you very much for the time and opportunity to receive your input and the input of other City of Fridley officials regarding the city's land use plans for the Naval Industrial Reserve Ordnance Plant property in Fridley, MN. The United States Environmental Protection Agency (U.S. EPA) has assisted the United States Department of the Navy (U.S. Navy) in determining a reasonably anticipated future land use for the Naval Industrial Reserve Ordnance Plant (NIROP). U.S. EPA, U.S. Navy and the Minnesota Pollution Control Agency (MPCA), staff have used U.S. EPA's Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.7-04, titled "Land Use in the CERCLA Remedy Selection Process", to determine a reasonably anticipated future land use at the NIROP.

The OSWER Directive No. 9355.7-04, "Land Use in the CERCLA Remedy Selection Process" (land use directive) presents additional information for considering land use in making remedy selection decisions with a particular focus on the community's desired future uses of property and incorporation of the community's desired future land use in the remedy selection process. Through greater community support and use of the land use directive, U.S. EPA believes a more democratic decision making process will occur, and a more expedited and cost-effective cleanup will take place.

On April 10, 1996, I met with you to present and discuss the land use directive. I deeply appreciate your input in discussions regarding local land use planning and how it relates to the NIROP. I also appreciate your help in locating additional sources and types of information, i.e. local planning documents, which were used in determining the reasonably anticipated future land use at NIROP. Information listed in the land use directive that was used to determine a reasonably anticipated future land use at NIROP included:



Printed on Recycled Paper

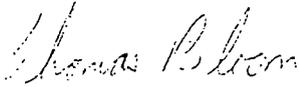
- Current land use
- Zoning laws and maps
- Community master plans
- Population growth patterns and projections
- Site location in relation to urban, residential, commercial, industrial, agricultural and recreational areas
- Federal and State land use designation
- Historical and recent development patterns
- Environmental justice issues
- Location of wetlands, proximity to floodplain and proximity to critical habitats of endangered or threatened species

Based on discussions with local planning authorities, U.S. EPA in consultation with the U.S. Navy and the MPCA has determined that the reasonably anticipated future land use for the NIROP is that of industrial use. Figure 0-1 of the Comprehensive Plan, City of Fridley, Final Draft, August 1982, indicates that the NIROP and surrounding area is currently zoned as industrial, and that future land use plans indicate that the area will continue to be zoned as industrial.

The U. S. Navy will use the reasonably anticipated future land use determination in the Baseline Risk Assessment for Operable Unit 3 (OU 3). The U.S. Navy will formulate information from the OU 3 remedial investigation to arrive at realistic assumptions regarding risk exposures, pathways, and other parameters used in a baseline risk assessment. The Remedial Investigation for OU 3 Report will discuss how these assumptions fit in and influence the baseline risk assessment. U.S. EPA and MPCA will ensure that cleaning up NIROP to an industrial land use scenario, will remain protective of human health and the environment.

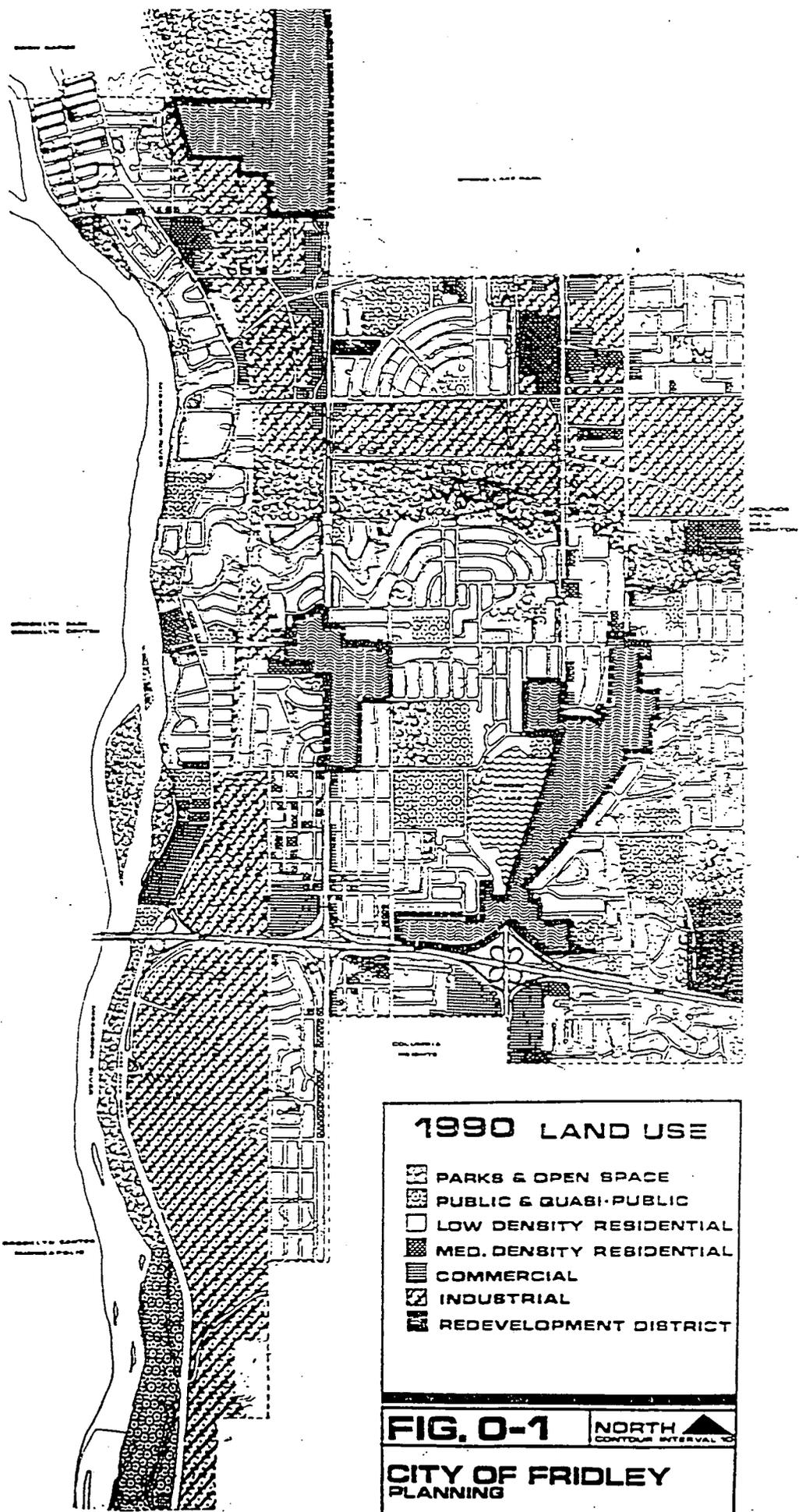
Thank you again for providing U.S. EPA, U.S. Navy and MPCA with the opportunity to discuss a reasonably anticipated land use at NIROP and for providing input into the application of the reasonably anticipated future land use directive at NIROP. If you have any questions regarding the NIROP Site or the contents of this letter, please contact me at (312) 886-1967.

Sincerely,



Thomas Bloom
Remedial Project Manager
U.S. EPA

cc: Scott Glass, U.S. Navy ✓
Dave Douglas, MPCA



1990 LAND USE

-  PARKS & OPEN SPACE
-  PUBLIC & QUASI-PUBLIC
-  LOW DENSITY RESIDENTIAL
-  MED. DENSITY RESIDENTIAL
-  COMMERCIAL
-  INDUSTRIAL
-  REDEVELOPMENT DISTRICT

FIG. O-1

NORTH
CONTOUR INTERVAL

**CITY OF FRIDLEY
PLANNING**

EXHIBIT D

TABLE 1 - * NOTICE OF HAZARDOUS SUBSTANCE STORAGE

Substance	Regulatory Synonym	CAS Registry Number	Quantity kg/lbs	Date
TCE	Trichloroethene	79-01-6	Unknown	Unknown - 1987
1,1,1-TCA	1,1,1-Trichloroethane	71-55-6	Unknown	1987 - 1993
MEK	Methyl Ethyl Ketones	78-93-3	Unknown	Unknown
Toluene	Methylbenzene	108-88-3	Unknown	Unknown
Ethylene Glycol	Ethylene Alcohol	107-21-1	Unknown	Unknown
Ammonia, Anhydrous	N/A	7664-41-7	Unknown	Unknown
Sodium Cyanide	N/A	143-33-9	Unknown	Unknown
Chromium	N/A	14977-61-8	Unknown	Unknown
Sulfuric Acid	Hydrogen Sulfate	7664-93-9	Unknown	Unknown
HCL	Hydrochloric Acid	7647-01-0	Unknown	Unknown
Nitric Acid	N/A	7697-37-2	Unknown	Unknown
Chromic Acid	Chromium Trioxide	7738-94-5	Unknown	Unknown
Phosphoric Acid	N/A	7664-38-2	Unknown	Unknown
Hydrofluoric Acid	N/A	7664-39-3	Unknown	Unknown
n-Butyl alcohol	N/A	71-36-3	Unknown	Unknown
Copper	N/A	7440-50-8	Unknown	Unknown
Dichloromethane	Methyl Chloride	75-69-4	Unknown	Unknown
Trichlorofluoromethane	Freon 113	75-69-4	Unknown	Unknown
Methanol	N/A	67-56-1	Unknown	Unknown
Methylene diisocyanate	N/A	101-68-8	Unknown	Unknown
Nickle	N/A	7440-02-0	Unknown	Unknown
Xylene	N/A	1330-20-7	Unknown	Unknown
Sodium hydroxide	Caustic Soda	1310-73-2	Unknown	Unknown

*This notice includes only hazardous substances known to have been stored in reportable quantities, based on a complete search of agency files, in accordance with the requirements of 40 CFR part 373. Information regarding constituents that have been detected in soil and groundwater, but for which agency records do not indicate storage, release or disposal in excess of reportable quantities can be found in the Draft OU #3 RI report, dated August 1998.

SUMMARY OF RESPONSE ACTIONS TAKEN

The following summarizes those environmental response actions which have been taken at the Naval Industrial Reserve Ordnance Plant (NIROP), Fridley, Minnesota as such information is available based upon a complete search of agency files. Further information concerning these actions may be found in the Environmental Baseline Survey for Transfer (EBST) prepared by the Navy dated 17 October 1997.

An Initial Assessment Study (IAS) of the NIROP was completed in 1983 and consisted of a review of existing activities and records, an evaluation of aerial photography, interviews with activity personnel, and an on-site survey of activities. Subsequent site studies prompted the establishment of three Operable Units (OUs). OU1 encompasses groundwater. OU2 encompasses on-site subsurface source areas, in the unsaturated zone, outside of the NIROP manufacturing building. OU3 encompasses all on-site subsurface source areas beneath the NIROP manufacturing building and on-site subsurface source areas, in the saturated zone.

In 1990, a Record of Decision (ROD) was executed to address the groundwater contamination identified at OU1. This contamination included solvent wastes generated from industrial operations. Phase I of the groundwater remedy provides for groundwater containment and recovery to obtain hydraulic containment of contaminated groundwater to prevent further offsite migration. Phase II of the remedy provides for on-site treatment and discharge of treated groundwater to the Mississippi River via a National pollutant Discharge Elimination system (NPDES) permit.

In 1991 contaminated soils were removed and disposed of during construction of the hazardous materials storage building addition. The soils were removed and disposed of off-site. Analytical data revealed samples selected for analysis of Volatile Organic Compounds (VOCs), total petroleum hydrocarbons (TPH), ethylbenzene, xylenes and trichloroethylene (TCE). The major constituent reported was a cutting oil, "Lubecut". Also in 1991, two Interim Removal Actions (IRAs) were started for OU2. These IRAs involved the removal of drums and contaminated soil and were completed in 1992.

In 1992, the Phase I groundwater containment system began operation in accordance with the OU1 ROD. Also in 1992, Remedial Investigation (RI) activities were initiated for OU2.

In 1993, RI activities for soil contamination were completed for OU2 and plant-wide Feasibility Study (FS) activities for soils were initiated. Also in 1993, a pump-and-treat system was installed to confine migration of the contaminated groundwater plume at OU1. Effluent from this system has been discharging into the local sanitary sewer system and will continue to do so until a new permanent groundwater treatment plant is in operation.

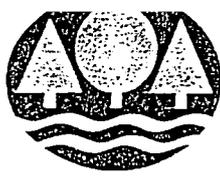
In 1995 the groundwater containment system was upgraded by adding two additional extraction wells to achieve more efficient containment of contaminated groundwater.

In 1996, an additional Drum Interim Removal Action at OU2 was completed.

In 1997, Remedial Design (RD) for the permanent groundwater treatment plant for OU1 began. Also in July 1997, a RI Workplan for OU3 was completed and the field investigation for OU 3 was initiated. In 1997 OU2 and OU3 were combined into one OU to address contamination both under and outside the footprint of the main industrial building at the NIROP in order to consider the potential for a combined OU1/OU2 remedy.

In 1998, the Draft OU3 RI Report was delivered to the Environmental Protection Agency and the Minnesota Pollution Control Agency for review and comment. Also in 1998, construction of the Phase II groundwater treatment facility was completed and the Long Term Operations (LTO) phase of the OU1 remedy began and a Five Year review of the OU1 remedy was completed for the groundwater containment system.

EXHIBIT E



Minnesota Pollution Control Agency

October 1, 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Patrick K. Morrow
Department of the Navy
5001 East River Road
Minneapolis, Minnesota 55421-1406

RE: Naval Industrial Reserve Ordnance Plant Draft Covenant Deferral Request

Dear Mr. Morrow:

This letter will serve as the Minnesota Pollution Control Agency's (MPCA) comments on the draft Covenant Deferral Request the Navy has placed on public notice regarding the anticipated transfer of the Navy Industrial Reserve Ordnance Plant (NIROP) in Fridley, Anoka County, Minnesota. Because the Covenant Deferral Request (CDR) is not effective until the Governor concurs in the language, the MPCA expects that the Navy will meet with the agency to resolve the agency's concerns before the Navy goes forward with the request.

We have enclosed a modified version of the Navy's draft CDR with proposed changes that address our concerns. The changes are self-explanatory and are issues we have raised in the past. The following explanation discusses several of our concerns.

1. Compliance Deadline. Several times in the draft CDR the Navy refers to the year 2010 as the outside date for completion of remedial action. The Navy has never before indicated to the MPCA that remedial action was going to take until the year 2010 to complete. If the Navy is going to request a change in the dates specified in the Federal Facilities Agreement for completion, the Navy should do that independent of the CDR. We propose eliminating any references to a compliance deadline that has not been discussed, let alone approved, outside the CDR process, and our version contains no such references.
2. Risk Analysis. There is a risk associated with the use of ground water at the site and the CDR should recognize that. The Remedial Investigation for Operable Unit 3 (OU3) was just completed at the end of August. While what remedial action may be required for OU2 and OU3 is still uncertain, the CDR should recognize that there are concerns about the risks associated with these two operable units and that some restrictions regarding use of the property may be necessary.

October 1, 1998

3. Notice in the Deed. CERCLA is clear that any deed transferring federal property for which remedial action is not complete must include language identifying certain information about past practices at the property and future remedial action. While it may not be practical to identify every chemical that has been stored at NIROP at one time or another, attaching the Environmental Baseline Survey for Transfer (EBST) as the Navy proposes to do does not give potential purchasers the information that CERCLA anticipates. We think it is acceptable to attach the EBST document, but the deed should also provide a summary of past practices. We have drafted language to do that.
4. Applicable Regulatory Authority. The Navy has eliminated language in several paragraphs that would identify certain authorities that the U.S. Environmental Protection Agency (EPA) and the MPCA both have regarding cleanup of the NIROP site. We would prefer that the CDR include a specific recognition that the MPCA and the EPA both have certain regulatory authorities over the site.
5. Transferee's Obligations. The EPA guidance provides that if the Transferee will perform any response action, the landholding federal agency must provide EPA with documentation demonstrating that the Transferee has or will become legally obligated to conduct the required response action. The CDR should contain language reflecting the requirement to provide the EPA with that documentation, and the MPCA would also like to receive the same documentation.
6. Industrial Use Standards. The Navy must recognize that although the EPA has determined that the anticipated future land use for the site is industrial, the land use could change. The Navy retains responsibility for further actions that may be necessary for another land use, e.g., an unrestricted (residential) land use, and the CDR should recognize that. Therefore, we have suggested some changes in the language in several paragraphs where references to industrial standards or industrial uses are made.

We will be happy to meet with you to discuss our comments. We are confident that the Navy and the MPCA can agree upon language in the CDR that will allow the Governor to concur with EPA that the property is suitable for transfer. We also await receipt of any other comments that the Navy receives on the draft CDR so we can discuss the issues raised in those comment letters as well.

Sincerely,



David N. Douglas, Project Manager
Superfund/RCRA Unit I
Site Remediation Section
Metro District

DND:ch

Enclosure

cc: Scott Glass, U.S. Navy
Thomas Bloom, Region V, EPA

COVENANT DEFERRAL REQUEST
FOR THE
NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
FRIDLEY, MINNESOTA

INTRODUCTION

The Naval Industrial Reserve Ordnance Plant (NIROP) is a Government Owned Contractor Operated (GOCO) facility situated north of the Minneapolis/St. Paul metropolitan area. The Northern Pump Company built the facility in 1940. The original use of the facility was for the construction of 5-inch gun mounts for Navy vessels. In 1947, the government acquired a portion of the physical plant. In the 1950s the focus of production shifted to ship-based guided missile launching systems. In 1994, the Armament Systems Division of United Defense Limited Partnership (UDLP) took over operation of the facility. UDLP currently operates the facility and continues to produce gun mounts and vertical launching systems.

The Navy has declared the NIROP excess federal property, thereby making the facility available for reutilization by non-federal, public and/or private entities. Environmental investigation and cleanup activities are ongoing at the NIROP facility. ~~The last site is expected to be complete, or have a remedy in place, by 2010.~~ Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. 9620(h)(3)(C), authorizes the United States Environmental Protection Agency (U.S. EPA) Administrator, with State Governor concurrence, to defer the requirement created by CERCLA Section 120(h)(3)(A)(ii)(I) that each deed entered into for the transfer of federal property to any person or entity contain a covenant warranting that all necessary hazardous substance remediation has been completed prior to transfer. The Navy hereby requests that the U.S. EPA Region V Administrator with the concurrence of the Governor of Minnesota, determine that the property is suitable for transfer and that this covenant may be deferred. Once the deferral request is granted, the General Services Administration (GSA) will proceed to convey the property while the Navy completes all necessary site remediation efforts. In accordance with CERCLA Section 120(h)(3)(B), this covenant deferral request pertains solely to the transfer of this facility to a non-Potentially Responsible Party.

I. Description of Property to be Transferred by Deed:

The property to be transferred by deed is an ~~80.35~~ 82.60 acre site in the City of Fridley, Anoka County, Minnesota (Property). The Property is bounded on the west by East River Road, on the east by Burlington Northern Rail Yard on the south by UDLP, and on the north by various privately owned industrial facilities.

The NIROP includes land and buildings, which contain 1,712,904 square feet of floor space, the majority of which is located within one main industrial building. A legal description of the Property at the NIROP is described by the Boundary and Building Location Survey provided as Exhibit A.

II. Nature and Extent of Contamination Impacting the Property:

For environmental investigation and cleanup purposes, the NIROP has been divided into three Operable Units (OUs). OU #1 encompasses groundwater contamination. OU #2 encompasses unsaturated source contamination outside the main industrial building. OU #3 encompasses source contamination beneath the main industrial building and saturated source contamination outside the main industrial building. Descriptions of the operable units are given below and reflect current known conditions. The Remedial Investigation (RI) for OU #1 and OU #2 are complete. RI for OU #3 is underway. ~~As investigations continue, conditions may change as a result of new information from ongoing investigations.~~ Exhibit B provides a layout of the Operable Units at the NIROP site as further described below.

a. OU #1:

Sixty-three (63) groundwater monitoring wells were installed from 1985 to 1996 and 18 additional wells were installed in the fall of 1997 to assess the condition of groundwater. These wells were installed both on and off Navy property. The wells are shallow, intermediate and deep and were installed in the surficial as well as Prairie du Chien/Jordan Dolomite aquifers. Of the 81 total wells, 44 are currently sampled on a regular basis under a Remedial Action Monitoring Plan (RAMP).

Elevated concentrations of Volatile Organic Compounds (VOCs) have been detected in the groundwater throughout the Navy property and extending off-property to Anoka County Riverfront Park, with trichloroethylene (TCE) being the primary constituent of concern. TCE concentrations beneath the Navy property range from less than 1 parts per billion (ppb) to ~~54,000~~ 140,000 ppb. ~~The highest TCE concentrations are found in the shallow and intermediate groundwater beneath the southern end of the main industrial building. TCE concentrations up to 4,500~~ 37,300 ppb have been recorded off Navy property ~~to the southwest of the main industrial building on UDLP property and at~~ in Anoka County Riverfront Park. The condition of off-property groundwater at Anoka County Park was further evaluated during an investigation conducted in December, 1997, and revealed elevated concentrations of TCE in screening samples up to 37,300 ppb in a 200 by 400 foot area adjacent to east River Road.

b. OU #2:

The only portion of OU #2 that remains a potential concern is an area of unsaturated soils located north of the main industrial plant known as the North 40. The North 40 contained waste disposal pits and trenches. Drums and impacted soils were removed and disposed of during three separate removal actions in 1983, 1991, and 1996. The OU #2 RI (completed in 1993) evaluated unsaturated soils to a depth of 20 feet. Like OU #1, VOCs, with TCE in particular, are the primary contaminants of concern. In general, concentrations of TCE in the North 40 were found to be in the range of 10 to 100 ppb. TCE contamination in excess of 200 ppb was found in small, localized areas, with the highest concentrations found in shallow soils (1 - 5 foot depths). In conjunction with the 1996 drum removal effort, samples taken at the bottom of the excavation pits were generally non-detect for TCE. There was a single sample with an elevated TCE concentration of 96,000 ppb at an approximate depth of 12 feet.

c. OU #3:

An investigation of soils and groundwater beneath the plating shop within the main industrial building was conducted in 1995. This investigation revealed that soils and shallow groundwater are contaminated primarily with TCE. TCE concentrations from 4 to 100,000 ppb were detected in soil. TCE concentrations ranging from 1,200 to 140,000 ppb were detected in shallow ground water. The highest soil concentrations were found adjacent to a former sump at an approximate depth of 13 feet and the highest groundwater concentration was found slightly down gradient from the former sump at the top of the surficial groundwater table, at approximately 16 feet below the plating shop floor.

A RI is being conducted to assess the condition of soils and groundwater beneath the Navy owned portion of the main industrial building. Field efforts were completed by the end of April 1998. A Draft OU #3 RI Report was issued August 29, 1998. The RI indicates that several VOCs (primarily chlorinated hydrocarbons, aromatics and ketones) were detected in soils, with the highest concentrations found beneath the plating shop. Several semi-volatile organic compounds (SVOC), primarily poly aromatic hydrocarbons (PAH) were also detected in soils ranging from 10 to 5,600 ppb. Metals, such as arsenic, chromium, copper and mercury were also detected in soils. Chlorinated hydrocarbons were the primary chemicals detected in groundwater samples.

III. Analysis of Intended Future Use:

The property is exclusively industrial and it is expected to remain so. The NIROP and surrounding areas are zoned for industrial uses, as shown in Figure O-1 of the Comprehensive Plan, City of Fridley, dated August 1982. Acknowledgement of its expected continued use as an industrial facility is documented in a U.S. EPA Region V letter to the City of Fridley dated March 4, 1997. These documents are included in Exhibit C.

With appropriate institutional controls in place, the reuse of NIROP for industrial purposes does not present a reasonable likelihood of exposure to TCE or other contaminants by workers and others present at the site. The soil beneath the buildings is not readily accessible due to the presence of thick concrete flooring and the groundwater beneath the NIROP ~~are~~ is not used for either drinking or process water purposes.

IV. Risk Analysis:

There are unacceptable risks associated with the use of groundwater. With regard to OU #2 and OU #3, the risks are uncertain and can be addressed. The following summarizes the currently known contamination levels associated with each operable unit.

a. OU # 1

TCE contamination of the surficial aquifer beneath the property and off-property remains above the Maximum Concentration Limit (MCL) of 5 ppb for protection of human health. Although the groundwater from the surficial aquifer is not currently used for drinking water, Minnesota law requires that contaminated groundwater be restored to potability. In addition, the Record of Decision (ROD) for groundwater remediation (OU #1) recognizes that all groundwater be restored to MCLs to provide for the protection of future potential users of such waters. Because groundwater beneath the NIROP facility is not used as a potable or process water source, there is currently no risk from worker exposure to groundwater in excess of the MCL.

Based on the off-property groundwater concentrations detected adjacent to the river, off-property concentrations of TCE discharged to the river are ~~expected to be~~ in excess of the Minnesota Pollution Control Agency (MPCA) and U.S. EPA drinking water standard (5 ppb). ~~It is uncertain whether t~~ This groundwater also exceeds MPCA aquatic life standards (25 ppb). While off property contamination is not applicable to this Covenant Deferral Request, the Federal Facilities Agreement (FFA), between the Navy, U.S. EPA, and the MPCA, dated 28 March 1991, requires the Navy to address the groundwater contamination which ~~may have~~ has migrated off of Navy property.

b. OU #2

The risk to human health from exposure to the top 12 feet of contaminated soils located outside the main industrial building has been documented as acceptable for industrial reuse but not for residential use. These findings are documented in the OU #2 RI Report, dated September 1993..

c. OU #3

Data from the Draft OU #3 RI, has been submitted to the MPCA and the U.S. EPA and is awaiting their review. The draft report indicates that continued industrial use presents no risk to the utility or construction worker from exposure to the top 12 feet of contaminated soil. To eliminate any potential risk to workers and other personnel at the site, pre-excavation precautions including adequate personal protective equipment and media screening are currently in place. Appropriate restrictions in the deed with respect to disturbance of contaminated soils beneath the main industrial building will insure continued protection of the health of the workers.

V. Response / Corrective Action and Operation and Maintenance Requirements:

The U.S. EPA placed NIROP on the National Priorities List (NPL) on November 21, 1989. Cleanup activities at the NIROP are being conducted in accordance with the Federal Facilities Agreement (FFA), ~~between the Navy, U.S. EPA and the MPCA, dated 28 March 1991.~~ The Navy intends to continue the investigation and cleanup of the NIROP in accordance with the requirements of the FFA. OU #1, OU #2, and OU #3 will need continued investigation, remedial action and Long Term Operation/Long Term Monitoring (LTO/LTM) in order to fulfill the objectives in the FFA. The following summarizes the status of each OU.

a. OU #1:

On September 28, 1990, the Navy, U.S. EPA and the MPCA signed the OU #1 ROD for groundwater remediation. The ROD established a two-phase remedy. The first phase called for the installation and operation of extraction wells to prevent further migration of contaminated groundwater from the NIROP and discharge of the extracted water to the local sanitary sewer. The second phase called for the on-site treatment of extracted groundwater to allow discharge of treated groundwater to the Mississippi River via an outfall permitted under the National Pollutant Discharge Elimination System (NPDES). The ROD stated that groundwater contamination beyond the capture zone of the extraction system was expected to dissipate over time.

~~The exact amount of dissipation is currently unknown. Natural dissipation has not occurred as envisioned by the ROD.~~

The extraction system began operation in September 1992 and was upgraded in 1995 with the addition of two extraction wells. The NIROP Groundwater Numerical Model (GNM) is currently being revised and it is expected that the results will provide a better delineation of the capture zone.

The second phase of the Groundwater Treatment Facility (GWTF) is currently under construction. It will extract and treat contaminated ground water and allow for the discharge of treated groundwater directly to the Mississippi River in accordance with the discharge limits defined in the NPDES permit. The GWTF is expected to be operational in the fall of 1998. The GWTF will be in the LTO/LTM phase following startup and operational checkout, which is expected to be completed in early 1999. Operation and maintenance functions to ensure the continued successful operation of the groundwater remedy will continue until either the groundwater is restored to the MCLs or an asymptotic level of groundwater contamination is reached as prescribed by the ROD. The Navy is currently refining the NIROP GNM, which should assist in predicting when cleanup goals will be achieved.

~~A Draft Five Year Review of the OU #1 remedy has been completed is underway. The Draft Five Year Review recommends that the Navy determine whether the present groundwater capture system is achieving substantial hydraulic containment, thereby preventing further off-property migration of contaminated groundwater. The review will be based on the chemical and physical groundwater data and the revised GNM. Additionally, an assessment will be conducted to determine if treatment of off property groundwater contamination beyond the capture zone of the extraction system is needed. These Future evaluations may result in the expansion of the groundwater extraction system and treatment of off-property groundwater contamination or both. It is anticipated that any required expansion to the groundwater extraction system or any required treatment of off-property groundwater contamination would be in place by September 2000.~~

b. OU #2:

Although the Navy initially prepared and submitted a Feasibility Study Report for OU #2 to the U.S. EPA and MPCA, the MPCA subsequently requested that the Navy stop the FS process for this OU so as to evaluate whether the remedial efforts for both OU#2 and #3 could be considered together. The NIROP Partnering Team subsequently agreed to reassess remedial alternatives for OU #2 in conjunction with potential remedial alternatives for

OU #3 and consider the possibility of implementing a combined remedy for the two. ~~It is anticipated that~~ This process will may postpone the selection of a a remedy until November 2001.

c. OU #3

The Draft RI for OU #3 was issued August 26, 1998. A combined OU #2/OU #3 remedy selection is expected by November 2001. ~~Based on current budget projections, the combined remedy is expected to be in place by 2010.~~ LTO/LTM activities will continue to be required until cleanup goals are achieved.

VI. Contents of Deed/Transfer Agreement:

a. Contents of the Deed:

As required by CERCLA Section 120(h)(3)(A), the Navy shall include the following language in the deed. The Navy may make minor, non-substantive changes in the language, but shall advise the U.S. EPA and the MPCA of such changes prior to closing.

(i). Notice:

In accordance with CERCLA Section 120(h)(3)(A)(i), Exhibit D—the attached Facilitywide Environmental Baseline Survey for Transfer identifies the hazardous substances that are known to have been released on the Property, the date the release or disposal took place and a description of any remedial action taken or proposed to be taken. In sum, over the years the Navy has disposed of a number of hazardous substances on the NIROP property, including trichloroethylene (TCE) and other chlorinated solvents, other organic chemicals, and metals like arsenic, chromium, and mercury. The Navy has installed a wastewater treatment plant to treat contaminated groundwater and may be implementing other measures to address contaminated soil if necessary.

(ii). Covenant:

Grantor warrants that it shall take any additional response action found to be necessary by the U.S. EPA, the MPCA, or other applicable regulatory authority after the date of conveyance regarding hazardous substances located on the Property as of the the date of this conveyance. This covenant shall not apply where (1) the Grantee (or its successors and assigns) of any of the Property is a potentially responsible party (PRP) with respect to the Property; or (2) any response action required is the

result of an act of failure to act of the Grantee which results in a release of hazardous substances after the date of conveyance.

(iii). Access:

Grantor reserves a right of access to all portions of the Property for environmental investigation, remediation or other corrective action. This reservation includes the right of access to and use of, to the extent permitted by law, available utilities at reasonable cost to the Grantor. These rights shall be exercisable in any case in which a remedial action, response action or corrective action is found to be necessary by the U.S. EPA, the MPCA, or other applicable regulatory authority after the date of conveyance of the Property, or in which access is necessary to carry out a remedial action, response action or corrective action on adjoining property. Pursuant to this reservation, the United States, the State of Minnesota ~~and the U.S. EPA, the MPCA,~~ and their officers, agents, employees, contractors and subcontractors shall have the right (upon reasonable notice to the Grantee or current owner and any authorized occupant of the Property) to enter upon the Property and conduct investigations and surveys, to include drillings, test-pitting, borings, data and record compilation, and other activities related to environmental investigation and to carry out remedial or removal actions as required or necessary under applicable authorities, including but not limited to monitoring wells, pumping wells, and treatment. Any such entry, including such activities, responses or remedial actions, shall be coordinated with the Grantee or its successors assigns, and tenants and shall be performed in a manner which minimizes interruption with Grantee's activities on the Property.

(iv). Response Action Assurances:

1. The Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property or part thereof, that it shall not construct or permit to be constructed any well, and shall not extract, utilize, consume or permit to be extracted, any water from the aquifer below the surfaces of the ground within the boundary of the Property for the purpose of human consumption, or other use, unless such groundwater has been tested and found to meet applicable ~~environmental~~ standards for human consumption, or such other use, and such owner or occupant shall first have obtained written approval of the Navy and the appropriate agencies of the State of Minnesota. The costs associated with obtaining use of such water, including, but not limited to, the costs of permits, studies, analysis or remediation, shall be the sole responsibility of the owner, its successors and assigns, without cost whatsoever to the Grantor.

2. The Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that it will not breach the concrete floor or excavate, dig, drill or cause other disturbance of the soils within the main industrial building or within the North 40 without prior written approval of the Navy.
3. Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that a party occupying the Property shall not hinder or prevent the Navy from properly constructing, upgrading, operating, maintaining and monitoring any groundwater treatment facilities or groundwater monitoring network or engage in any activity that will disrupt or hinder required remedial investigations, response actions or oversight activities on the Property or adjoining property.
4. Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that only industrial uses shall be made of the Property unless the Property is remediated to those applicable federal and state standards which would allow for other uses.

b. Contents of the Transfer Agreement:

As required by CERCLA Section 120(h)(3)(C)(i)(II), the Navy shall include the following language in the transfer agreement.

- (i). All necessary response actions will be taken by the Navy in accordance with schedules approved by the U.S. EPA and the MPCA. ~~A projected work completion schedule associated with such actions is included as Exhibit E. It~~ Schedules for completing response actions will be reviewed by the Navy, U.S. EPA and MPCA and updated as necessary as part of the annual update of the Site Management Plan for environmental remediation.
- (ii). The Navy shall submit on an annual basis through established channels appropriate budget requests to the Director of the Office of Management and Budget ~~to that~~ adequately address those agreed upon schedules for investigation and completion of all necessary response actions required by the FFA. ~~cover agreed upon work.~~ The actual amount available for such effort is subject to congressional authorizations and appropriations.

(iii). In accordance with CERCLA Section 120(h)(3)(C)(iii), when all response actions have been taken, ~~necessary to protect human health and the environment under industrial use standards with respect to any substance remaining on the Property on the date of transfer,~~ the United States shall execute and deliver to the transferee an appropriate document containing a warranty that all such response action has been taken, including any institutional controls that are part of the final remedy, that may be necessary to ensure protection of human health and the environment ~~at~~ ~~under industrial standards.~~

VII. Responsiveness Summary:

During the public comment period, the Navy received _____ comments from the public on the draft Covenant Deferral Request. These comments have been provided to the MPCA and U.S. EPA. The Navy's responses to the comments are attached as Exhibit F.

VIII. Transferee Response Action Assurances and Agreements:

A Transferee has not yet been identified. The Navy does not contemplate that the Transferee will assume response actions. If this should change, the Navy shall provide the U.S. EPA and the MPCA with all agreements, assurances, and other documents signed by the Transferee demonstrating that the Transferee is legally obligated to conduct the required response actions in accordance with the FFA. ~~will be consulted on implementation of the appropriate response action.~~ Under the FFA, the Navy retains responsibility for the completion of all necessary response actions at the NIROP.

IX. Effect of Covenant Deferral Request:

Nothing in this Covenant Deferral Request shall be construed to alter the Navy's obligation to complete ~~to industrial use standards~~ all necessary response actions in accordance with the FFA entered into by the Navy, the U.S. EPA, and the MPCA or under applicable federal or state law.

X. Suitability Declaration:

As the cognizant Department of Defense (DoD) official authorized to make such determination, I, the undersigned, hereby declare that under the proposed land-use conditions and deed restrictions to be employed, the NIROP Fridley property described in this document is suitable for transfer to a willing and complying buyer.

Date
HOLADAY
Deputy Assistant Secretary
(Installations and Facilities)

DUNCAN

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