



**Amended Brownfield Plan  
Cliffs-Dow  
City of Marquette, Marquette County, Michigan**

**May 10, 2010**

**Approved by Marquette  
Brownfield Redevelopment Authority: April 12, 2010  
(tentative)**

**Public Hearing: May 10, 2010  
(tentative)**

**Approved by Marquette City  
Commission: May 10, 2010  
(tentative)**

**Amended Brownfield Plan  
Cliffs-Dow  
Marquette, Michigan**

**Table of Contents**

Project Summary .....	1
Introduction.....	2
Public Purpose .....	3
Description of Project and Plan Costs .....	3
Summary of Eligible Activities .....	5
Estimate of Captured Taxable Value and Tax Increment Revenues .....	6
Method of Financing Plan Costs .....	7
Maximum Amount of Indebtedness .....	7
Duration of Brownfield Plan .....	7
Estimate of Impact of Tax Increment Financing on Taxing Jurisdictions.....	7
Legal Description, Location, and Determination of Eligibility.....	7
Estimate of Number of Persons Residing on Eligible Property .....	8
Plan for Residential Relocation .....	8
Provision of Costs of Relocation .....	9
Strategy to Comply with Relocation Assistance Act.....	9
Description of Proposed Use of the Local Site Remediation Revolving Fund.....	9
Other Material Required by the Authority or Governing Body.....	9

**Tables**

Table 1 Anticipated Eligible Activities Costs

**Figures**

Figure 1a - Eligible Property Location Map

Figure 1b – Eligible Property Boundaries

Figure 2 – Legal Descriptions and Parcel Maps

### PROJECT SUMMARY

The City of Marquette is facilitating the remediation of the former Cliffs-Dow property and is proposing to use funds from the Marquette Brownfield Redevelopment Financing Authority (MBRFA) Local Site Remediation Revolving Loan Fund (LSRRF) to finance due care and additional response activities. LSRRF revenues may be used for Eligible Activities on Eligible Property, as defined by Act 381, PA 1996 as amended.

Due care and additional response activities are Eligible Activities under Act 381. In order for the Cliffs-Dow property to be Eligible Property, the property must be a Part 201 Facility, functionally obsolete, or blighted as defined in Act 381, and a brownfield plan must be approved by the MBRFA and the Marquette City Commission. An environmental investigation conducted in Fall 2009 identified the presence of Volatile Organic Compounds (VOCs) in soils and VOCs and Polynuclear Aromatic compounds (PNAs) in groundwater in excess of Michigan Department of Natural Resources and the Environment (MDNRE) Generic Residential Cleanup Criteria (GRCC). As a result, the property is classified as a Part 201 Facility, under Act 451, PA 1994 as amended.

The property is not anticipated to generate significant tax increment revenue, because it is owned by the City of Marquette and is tax exempt. In addition, no improvements are anticipated for the property. The sole purpose for the Brownfield Plan is to qualify the property as eligible property under Act 381 and allow for the expenditure of funds from the MBRFA LSRRF of the eligible activities of due care and additional response activities. This Brownfield Plan amends an original Brownfield Plan entitled "Iron Bay Business Park" approved in 1999.

<b>Project Name:</b>	Cliffs-Dow
<b>Project Location:</b>	The Eligible Property is located in the northern portion of the Marquette, Michigan, along N. Lakeshore Drive, north of the NMU Superior Dome.
<b>Property Tax Identification Numbers:</b>	<i>To be provided</i>
<b>Type of Eligible Property:</b>	Part 201 Facility
<b>Eligible Activities:</b>	Due Care Investigation, Plans, and Activities, Additional Response Activities
<b>Eligible Activity Costs:</b>	Up to \$400,000
<b>Years to Complete Eligible Activities Payback:</b>	Not Applicable
<b>Estimated Eligible Investment:</b>	\$0
<b>Annual Tax Revenue Before Project:</b>	\$0
<b>Estimated Annual Tax Revenue in First Year After Project Obligation:</b>	\$0

**AMENDED BROWNFIELD PLAN**

**CLIFFS-DOW  
CITY OF MARQUETTE, MARQUETTE COUNTY, MICHIGAN**

**MARQUETTE BROWNFIELD REDEVELOPMENT  
FINANCING AUTHORITY**

**Introduction**

Act 381, P.A. 1996, as amended, was enacted to promote the revitalization, redevelopment and reuse of contaminated, tax reverted, blighted or functionally obsolete property through incentives adopted as part of a brownfield plan. The brownfield plan outlines the qualifications, costs, impacts, and incentives for the project.

The plan must be approved by the brownfield redevelopment authority established under Act 381 and the governing body of the authority's municipality in order to take effect. The state must approve the Eligible Activities if state taxes are to be captured or if State taxes are used from the LSRRF for eligible activities. If desired, the state must approve a Michigan Business Tax (MBT) Brownfield Credit.

The Marquette City Commission established the Marquette Brownfield Redevelopment Financing Authority under the procedures required under Act 381 on September 8, 1997 and certified by the State of Michigan on January 28, 1998.

This Amended Brownfield Plan is for Cliffs-Dow in Marquette, Marquette County, Michigan, consistent with Act 381. The original Brownfield Plan, entitled "Iron Bay Business Park" The intent of the original Brownfield Plan appeared to include the full Cliffs-Dow property (minus the NMU property); however the legal description in the Appendix only described the 2.13 acres that was the Community Bio-Resources parcel. The original Brownfield Plan, was approved by Marquette Brownfield Redevelopment Financing Authority and the Marquette City Commission in 1999. This amendment to the original Brownfield Plan adds the balance of the Cliffs-Dow property as Eligible Property. The amended Brownfield Plan also includes MDNRE Environmental Eligible Activities, funded through the MBRFA LSRRF. Eligible Activities have been completed and the obligations have been reimbursed from the original Brownfield Plan, and are not addressed in this Amended Brownfield Plan.



The Plan describes the public purpose and qualifying factors for determining the site as an Eligible Property, the Eligible Activities and estimated costs, the impacts of tax increment financing, and other project factors.

**Public Purpose - MCL 125.2664(1):**

The City of Marquette acquired the Cliffs-Dow property in October 1997 from Marquette Properties II, LLC. As part of that agreement, the City agreed to address all environmental responsibilities on the property. The purpose of this Amended Brownfield Plan is to include the full Cliffs-Dow property as Eligible Property and provide for the use of LSRRF revenues to address environmental responsibilities on the property to protect public health, safety and welfare and the environment.

**Description of Project and Plan Costs - MCL 125.2663(1)(a):**

The original Cliffs-Dow property was comprised of two parcels, the northern parcel of 9.1 acres and the southern parcel of 68.1 acres. The City subsequently donated the portion southern portion of the property to Northern Michigan University for the construction and operation of the Superior Dome and attendant athletic fields and sold a portion of the northern parcel of the property to Community Bio-Resources, which was the subject of the original Brownfield Plan. The intent of the original Brownfield Plan appeared to include the full Cliffs-Dow property (minus the NMU property); however, the legal description in the Appendix only described the 2.13 acres that was the Community Bio-Resources parcel. This Amended Brownfield Plan includes the balance of the remaining Cliffs-Dow property.

The Cliffs-Dow Plant was constructed by the Cleveland-Cliffs Iron Company in 1902 for the purpose of manufacturing charcoal pig iron. Plant operations were acquired in 1935 by the Cliffs-Dow Chemical Company, whose primary shareholders were the Cleveland-Cliffs Iron Company and Dow Chemical Company. Around this time, the plant transitioned from charcoal pig iron production to the production of charcoal, wood creosote, and other chemicals derived from the destructive distillation of wood. In 1968, Cliffs-Dow Chemical was sold to Georgia-Pacific and E.L. Bruce Company, who renamed the company Royal Oak Charcoal Company. The production of wood creosote and charcoal continued under Royal Oak Charcoal Company until the plant was closed in 1969.

The primary waste stream associated with historic chemical/charcoal production at the former Cliffs-Dow Plant is wood tar, which is formed during the destructive distillation of wood. Wood tar is comprised of several chemicals regulated under Part 201, most notably BTEX (i.e., benzene, toluene, ethylbenzene, and xylenes) and phenolic compounds. Wood tar, when released to the environment, functions as a Dense Nonaqueous Phase Liquid (DNAPL). The term DNAPL is used in the scientific, technical, and regulatory communities to refer to liquids that are immiscible in water and have a density greater than that of water. When DNAPLs are released to the environment they migrate vertically downward through the subsurface, either becoming trapped in soil pore spaces as small, disconnected residual pockets of DNAPL or perched on top of lower conductivity soil layers as larger, more continuous pools. DNAPLs tend to penetrate to depths below the water table and as groundwater migrates through the portion of the subsurface where DNAPL is present, the soluble components of the DNAPL partially dissolve into the flowing groundwater, giving rise to a *contaminant plume*. At the former Cliffs-Dow Plant site, as groundwater flows through the potentially numerous source zones (i.e., the portions of the subsurface where wood tar is present), contaminants are released from the tar into groundwater as it flows to Lake Superior.

In late 2009, thirteen sets of three nested groundwater monitor wells (39 total wells) were installed and sampled. Additional investigation of purported surface and near-surface wood tar source areas was also performed during this time period yielding only isolated, small tar deposits in the areas investigated. A report detailing the results of the 2009 groundwater and soil investigation efforts was completed on December 15, 2009 and submitted to the City of Marquette and to the MDNRE. With respect to groundwater contamination, this report concluded that while contaminant concentrations have decreased over the previous monitoring event in 2000, several wells yielded analytical results that still exceeded Part 201 Generic Groundwater-Surfacewater Interface (GSI) criteria.

Additional quarterly groundwater monitoring is anticipated to provide the necessary data to evaluate the effect of seasonal groundwater flow patterns on the contaminant concentrations and also information useful in evaluating the feasibility of environmental response alternatives for the former Cliffs-Dow Plant site. In addition, there also may be additional response activities, including additional site investigation and potential remediation.

MDNRE Environmental Eligible Activities include:

- Conducting Additional Response Eligible Activities including:
  - groundwater monitoring and evaluation;
  - work plan development and approval;
  - mitigation of exposure pathways; and
  - potential removal of contaminated soil and groundwater;

Other Eligible Activities include:

- Brownfield Plan development and approval
- Administrative and Operating Costs of the MBRFA

The maximum Eligible Activity costs are estimated at *\$400,000*.

**Summary of Eligible Activities - MCL 125.2663(1)(b):**

Act 381 provides for the costs of certain eligible environmental activities to be funded through the Local Site Remediation Revolving Fund. The following is a summary of MDNRE Environmental Eligible Activities.

**MDNR Environmental Eligible Activities**

1. Additional Response Activities: The work scope is to conduct groundwater monitoring and evaluation, prepare an investigative Work Plan, and potentially remediate soil and groundwater.
  - A. Groundwater Monitoring: Conduct additional groundwater monitoring and evaluation to determine the effect of seasonal groundwater flow patterns on the contaminant concentrations and also information useful in evaluating the feasibility of environmental response alternatives for the former Cliffs-Dow Plant site.
  - B. Work Plan: Develop an investigative Work Plan to evaluate the existence of potential contamination source(s) at deeper aquifer intervals.



C. Additional Investigation: Conduct the investigation outlined in the Work Plan

D. Remediation: If the monitoring and investigation identify the need for source removal or other remediation, conduct the remediation in accordance with the Work Plan and MDNRE requirements.

**Other Activities**

Brownfield Plan and Work Plan: The preparation and approval of the Brownfield Plan are included as Eligible Activities.

Administrative and Operating Costs: An estimate of reasonable and actual administrative and operating costs of the Marquette Brownfield Redevelopment Financing Authority (MBRFA) is included as Eligible Activities.

The following tables estimate the costs for Eligible Activities to be funded by tax increment revenues.

**Estimated Cost of MDNRE Eligible Environmental Activities**

<b>MDNRE Environmental Eligible Activities</b>	<b>Estimated Cost</b>
Additional Response Activities	\$385,000
Work Plan Development and Review Cost	\$5,000
Brownfield Authority Administrative and Operating Cost	\$10,000
<b>MDEQ Environmental Eligible Activities Total</b>	<b>\$400,000</b>

**Estimate of Captured Taxable Value and Tax Increment Revenues MCL 125.2663(1)(c):**

The initial taxable value for the Community Bio-Resources parcel was set at the taxable value as of the approval date of original Brownfield Plan, which was 1999, as shown by the most recent assessment roll for which equalization has been completed. The initial taxable value for the balance of the Cliffs-Dow property will be set at the taxable value as of the approval date of this Brownfield Plan, anticipated to be May 10, 2009. The initial taxable value established by this brownfield plan is based on the 2009 tax



year and is estimated at \$0 as City-owned property. Eligible Activities have been completed and the obligations have been reimbursed from the original Brownfield Plan, and are not addressed in this Amended Brownfield Plan.

The total Eligible Activity cost is \$385,000 for MDNRE Environmental Eligible Activities. The Brownfield Plan also includes \$15,000 in Work Plan Development and Approval and MBRFA Administrative and Operating Costs, bring the Maximum Eligible Activity Cost to \$400,000. There is not anticipated to be any private investment on the property and there will be no tax increment captured on the property.

**Method of Financing Plan Costs - MCL 125.2663(1)(d):**

Eligible Activities, including additional response activities will be financed by the Marquette Brownfield Redevelopment Financing Authority through the Local Site Remediation Revolving Fund (LSRRF).

**Maximum Amount of Indebtedness - MCL 125.2663(1)(e):**

The maximum amount of indebtedness will be \$400,000.

**Duration of Brownfield Plan - MCL 125.2663(1)(f):**

The duration of the Plan will be the timeframe in which eligible activities will occur, anticipated to be within 10 years of the approval of the Amended Brownfield Plan, but may occur up to 30 years of the approval of the Amended Brownfield Plan.

**Estimate of Impact of Tax Increment Financing on Taxing Jurisdictions – MCL 125.2663(1)(g):**

Because no tax increment will be captured from the eligible property, there will be not impact on taxing jurisdictions.

**Legal Description, Location, and Determination of Eligibility - MCL 125.2663(1)(h):**

Legal Description and Location: The property is generally bounded by Hawly Street to the north, N. Lakeshore Drive and Lake Superior to the east, Northern Michigan University athletic fields and the Superior Dome to the south, residences and apartments fronting Presque Isle Avenue to the west. Legal Descriptions for the parcels are included in the Appendix.

Property Tax Identification Number	Name	Project	General Description
0510990	City Owned	Additional Response Activities	Central portion of the former Cliffs-Dow property – approximately 32.5 acres.
0510991	Community Bio-Resources	Private Development	Northern portion of former Cliffs-Dow property – 2.13 acres
0510993	Kinsey, LLC	Future Private Development	Additional parcel south of Community Bio-Resources – 2.03 acres
0510994	City Owned	Future Private Development	Third parcel south – 6.06 acres
0510995	City Owned	Future Private Development	Southwest parcel – 3 acres

A map depicting the location and dimensions of the property are included in the Appendix.

Eligibility Determination: An environmental investigation conducted in Fall 2009 identified the presence of Volatile Organic Compounds (VOCs) in soils and VOCs and Polynuclear Aromatic compounds (PNAs) in groundwater in excess of Michigan Department of Natural Resources and the Environment (MDNRE) Generic Residential Cleanup Criteria (GRCC). The site is characterized as a Part 201 Facility, under Michigan’s Natural Resources and Environmental Protection Act (NREPA), Act 451, PA 1994 as amended.

**Estimate of Number of Persons Residing on Eligible Property - MCL 125.2663(1)(i):**

There are currently no residential dwellings or residences that occupy the Eligible Property.

**Plan for Residential Relocation (MCL 125.2663(1)(j)):**

The Eligible Property does not currently contain any residential dwellings; therefore, a plan for residential relocation is not applicable.

**Provision of Costs of Relocation - MCL 125.2663(1)(k):**

The Eligible Property does not currently contain any residential dwellings; therefore, a provision for residential relocation has not been allocated.

**Strategy to Comply with Relocation Assistance Act, 1972 PA 227, MCL 213.321 to 213.332 - MCL 125.2663(1)(l):**

The Eligible Property does not currently contain any residential dwellings; therefore, relocation is not necessary.

**Description of Proposed Use of the Local Site Remediation Revolving Fund - MCL 125.2663(1)(m):**

Use of the Local Site Remediation Fund will be consistent with the requirements of Act 381, including expenses for Eligible Activities on Eligible Property.

**Other Material Required by the Authority or Governing Body - MCL 125.2663(1)(n):**

None.



## **Tables**

**Table 1 – MDNRE Environmental Eligible Activities Costs**

## **Figures**

**Figure 1 - Eligible Property Location Map**

**Figure 2 – Eligible Property Boundaries**


## **Attachment**

**Legal Descriptions**

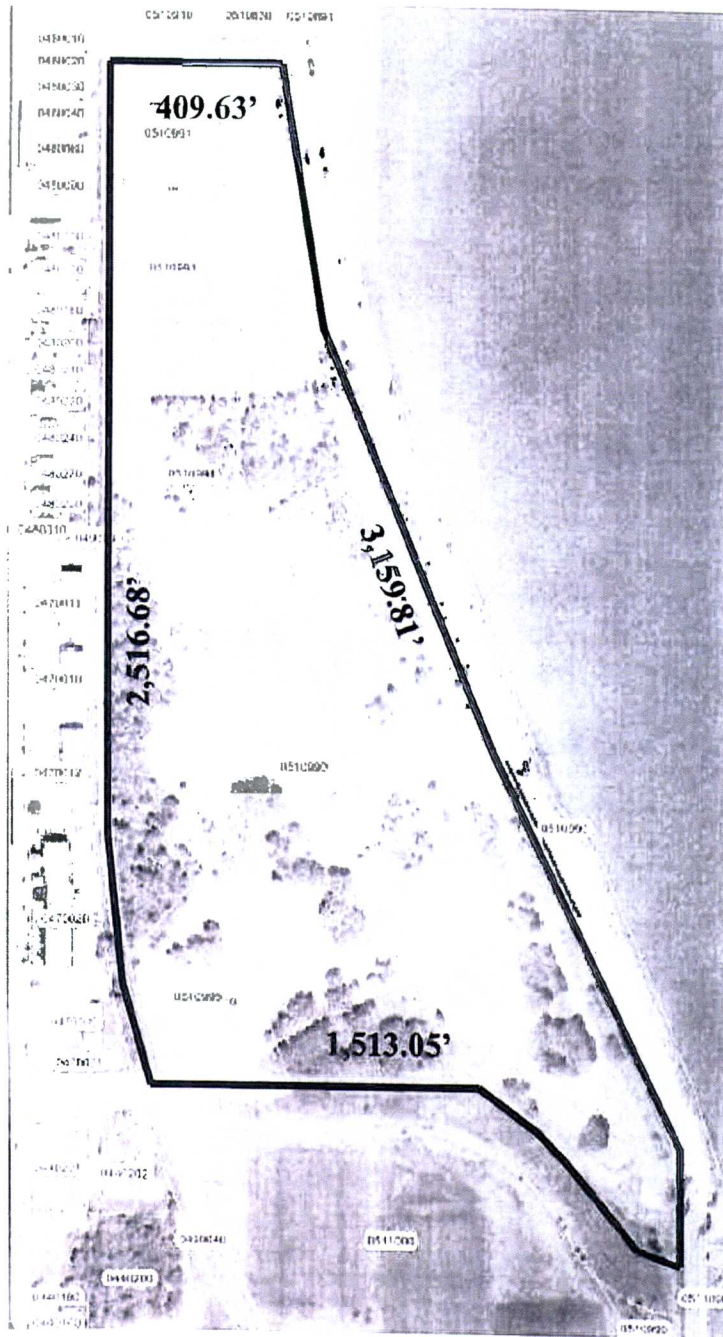
**TABLE 1**  
**MDNRE ELIGIBLE ACTIVITIES COSTS**  
**CLIFFS DOW**  
**MARQUETTE BROWNFIELD REDEVELOPMENT FINANCING AUTHORITY**  
**MARQUETTE, MICHIGAN**


Eligible Activity Description	TOTAL ELIGIBLE ACTIVITIES
<b><i>Additional Response Activities</i></b>	
1 <b>Groundwater Monitoring</b>	\$40,000
2 <b>Investigative Work Plan</b>	\$6,000
3 <b>Additional Investigation</b>	\$99,000
4 <b>Soil and/or Groundwater Remediation</b>	\$240,000
<i>Subtotal</i>	\$385,000
<b>ELIGIBLE ACTIVITIES SUBTOTAL</b>	<b>\$385,000</b>
<b><i>Work Plan Development and Approval Costs</i></b>	
Brownfield Plan and Work Plan Development and Approval	\$5,000
Administrative and Operation Costs*	<u>\$10,000</u>
<i>Subtotal</i>	<b>\$15,000</b>
<b>ELIGIBLE ACTIVITIES SUBTOTAL</b>	<b>\$400,000</b>



<b>Cliffs Dow Brownfield Plan</b>		<b>Figure 1 -- Eligible Property Location Map</b>	
 <b>Otwell Mawby P.C.</b> Traverse City, Michigan	<b>Date:</b> April 19, 2010		<b>Proj No</b> 09-086a





<b>Cliffs Dow Brownfield Plan</b>		<b>Figure 2 – Eligible Property Boundary Map</b>	
	<b>Otwell Mawby P.C.</b> Traverse City, Michigan		<b>Date:</b> April 19, 2010
			<b>Proj No 09-086a</b>

**LEGAL DESCRIPTIONS – CLIFFS DOW BROWNFIELD PLAN**

**PARCEL #0510990**

SEC 11 T48N R25W (32.5 A M/L)

PRT OF GL6 & GL7 COM AT 1/4 COR COM TO SEC 14 & 11; TH S89DEG22'21"E ALG S LN OF SD SEC 11 485.56'; TH N00DEG37'39"E 60' TO PT ON N R/W OF WRIGHT ST AND POB; TH N17DEG53'40"W 570'; TH S41DEG48'33"W 330' TO PT ON E'LY R/W OF FORMER RR R/W; TH ALG SD FORMER R/W N04DEG42'38"W 475.03'; TH N00DEG05'31"E ALG SD FORMER R/W 1091.10'; TH S89DEG54'29"E 315.69'; TH N07DEG24'42"W 303.35'; TH N04DEG10'15"W 112.05'; TH N01DEG48'09"W 238.35'; TH N89DEG56'06"E 149.63' TO W'LY R/W OF LAKESHORE BLVD; TH S10DEG07'03"E ALG SD R/W 630.86'; TH S21DEG16'55"E ALG SD R/W 1123.40'; TH S24DEG10'47"E ALG SD R/W 1095.47'; TH S13DEG05'47"E ALG SD R/W 94.76'; TH S07DEG16'40"E ALG SD R/W 113.79'; TH S00DEG17'33"E ALG SD R/W 100.76' TO N'LY R/W OF WRIGHT ST; TH N55DEG54'32"W 200.95'; TH N25DEG13'27"W 85.19'; TH N51DEG26'56"W 428.64'; TH N89DEG22'21"W 443.90' TO POB, EXC PARCEL #0510994.  
(2009 SPLIT TO 0510995)

**PARCEL #0510991**

SEC 11 T48N R25W (92,858.67 SF / 2.1317 A M/L)

PRT OF THE NW 1/4 OF THE SE 1/4 OF SD SEC 11 COMM AT THE S 1/4 COR OF SD SEC 11; TH S89DEG22'21"E 173.71' ALG THE S LINE OF SD SEC 11 TO THE E'LY R/W LN OF THE LS&I RR R/W; TH N08DEG22'28"W 835.36'; TH N00DEG05'31"E 1,391.10' ALG SD R/W TO THE POB; TH N00DEG05'31"E 330.00'; TH N00DEG18'06"W 20.00' TO THE S'LY R/W OF HAWLEY ST; TH N89DEG56'06"E 260.00' ALG SD R/W; TH S01DEG48'09"E 238.35'; TH S04DEG10'15"E 112.05'; TH S89DEG56'06"W 276.07' TO THE POB.

**PARCEL #0510993**

SEC. 11 T48N R25W (88,250 SF / 2.0259 A M/L)

PRT OF THE NW 1/4 OF THE SE 1/4 OF SD SEC DESC AS COMM AT THE S 1/4 COR; TH S89DEG22'21"E ALG THE S LINE OF SEC 11, 173.71' TO THE E'LY R/W OF THE FORMER LS&I RR R/W; TH NE'LY ALG SAID FORMER R/W N08DEG22'28"W 835.36' TO THE POINT OF TANGENCY; TH N00DEG05'31"E ALG SAID R/W 1,091.10' TO THE POB; TH N00DEG05'31"E ALG SAID R/W 300'; TH N89DEG56'06"E 276.07'; TH S'LY S07DEG24'42"E 303.35'; TH N89DEG54'29"W 315.69' TO THE POB.

**PARCEL #0510994**

SEC 11 T48N R25W (263,665 SF / 6.0529 A M/L)

PRT OF THE NW 1/4 OF THE SE 1/4 OF SD SEC COMM AT THE S 1/4 COR OF SD SEC; TH S89DEG22'21"E 173.71' ALG THE S LINE OF SD SEC TO THE E'LY R/W OF THE FORMER LS & I RR R/W; TH 838.41' ALG THE E'LY R/W ON A NON-TANGENT CURVE TO THE RT HAVING A RADIUS OF 2,836.94', A CENTRAL ANGLE OF 16DEG55'58", AND A CHORD BEARING N08DEG22'28"W 835.36' TO THE PT OF TANGENCY; TH N00DEG05'31"E 411.10' ALG SD R/W TO THE POB.; TH N00DEG05'31"E ALG SD R/W 680'; TH S89DEG54'29"E 315.69'; TH S'LY 175.02' ALG A CURVE TO THE LFT, SAID CURVE HAVING A RADIUS OF 3,677.47' AND A CENTRAL ANGLE OF 02DEG43'36" TO A PT OF TANGENCY, THE CHORD OF WHICH BEARS S11DEG08'20"E 175'; TH S12DEG30'09"E 520.88'; TH N89DEG54'29"W 463.35' TO THE POB.

**PARCEL #0510995**

SEC 11 T48N R25W 3 A M/L

PRT OF GL7 COM AT S 1/4 COR OF SD SEC; TH S89DEG22'21"E 155.56'; TH N00DEG37'39"E 60' TO POB; TH N12DEG32'38"W 300'; TH N41DEG48'33"E 330'; TH S17DEG53'40"E 570'; TH N89DEG22'21"W 330' TO POB.  
(2009 SPLIT FROM 0510990)