



July 23, 2008

Mr. Jeremy Grey
Project Manager, Development
CenterPoint Properties
1808 Swift Drive
Oak Brook, Illinois 60523-1501

Re: CenterPoint Intermodal Traffic Impact Study Comment Responses
Hanson No. 07R0074

Dear Mr. Grey:

Per your request we have summarized the capacity analysis and operations of Arsenal Road from the larger traffic impact study for the CenterPoint Intermodal Center North (CICN) facility. Please find the summary below.

The proposed CICN is located in Will County, Illinois. The CICN is made up of the intermodal yard along with of approximately 14.2 million square feet of industrial/warehousing space proposed along the surrounding roads. Most of the traffic, especially truck traffic, will be directed by means of roadway restrictions and closings to Interstate 55 by means of Arsenal Road. Arsenal Road is a five-lane concrete principal arterial roadway that currently intersects I-55 at a signalized folded diamond interchange. The reconstruction of this interchange has been placed in the Illinois Department of Transportation's FY 2009-2014 Proposed Highway Improvement Program as one of the "Major Project Highlights".

Roadway operations are measured in Level of Service (LOS). The LOS for roadway segments and intersections is an "A-B-C-D-E-F" grading system, whereby the quality of operation on a street system can be identified. LOS's range from an "A", the best traffic operation, to "F", the poorest. It is generally accepted that the minimum acceptable LOS is LOS "D", while LOS "E" is considered capacity. The LOS is calculated in accordance with the 2000 Highway Capacity Manual (HCM). For planning level analysis, a volume-to-capacity ratio (V/C) is used to measure the current and future levels of service of the studied roadways. The LOS for intersections use the same grading system as roadway segments, but it is measured in the total delay a vehicle experiences in seconds per vehicle at the intersection during the peak hour. Abbreviated definitions for each LOS and their associated capacity and delay ranges are shown in the following table.

LOS	Description	Traffic Loading % of Roadway Capacity (V/C Ratio)	Signalized Intersection Delay (sec/veh)
A	Free flowing traffic	< 50 %	< 10
B	Low-density stable traffic	51% - 70%	> 10 – 20
C	Medium density stable traffic flow	71%-80%	> 20 – 35
D	High density stable traffic flow	81%-90%	> 35 – 55
E	Unstable flow at or near capacity levels	91%-100%	> 55 – 80
F	Breakdown of traffic flow	> 100%	> 80



In order to understand the existing operations of Arsenal Road and to better predict the future conditions, field counts were taken along Arsenal Road west of Baseline, along with peak hour turning movement counts at the signalized I-55 interchange ramps. The current average daily traffic (ADT) counted on Arsenal Road is approximately 8,170 vehicles per day, and 817 vehicles in the peak hour with roughly 40% truck traffic. For capacity analysis, truck traffic is given a 1.5 passenger car equivalent in order to compensate for the larger vehicle and slower startup speeds. Therefore, during the existing condition Arsenal Road is estimated to have 980 (passenger car equivalent) vehicles during the peak hour. Arsenal Road, being a five-lane principal arterial, has a capacity of approximately 900 vehicles per hour, per (through) lane (vphpl), or 3,600 vphpl total capacity. Arsenal Road has an existing V/C ratio of 0.27 (980/3,600) and using the table above, will operate at a LOS "A".

The intersections of Arsenal Road and the I-55 interchange ramps were analyzed in the existing condition using the same Highway Capacity Manual and LOS grading system. It was found that during the peak hour the southbound I-55 ramp intersection operated with a delay of 8.0 seconds per vehicle and LOS "A", while the northbound I-55 ramp signal operated with a delay of 5.7 seconds per vehicle and LOS "A".

The roadway and intersections were analyzed in an identical fashion for each of the five development phases associated with the CICN. The new configuration of the interchange was also analyzed for all five phases. The new configuration of the Arsenal/I-55 interchange allows the main traffic movements (entering and leaving the interstate) to be controlled by one signal, and then proceed to free flow ramps. The proposed signal at the Arsenal Road interchange ensures that three of the four major movements (northbound on, northbound off, and southbound off) are through movements, and get a majority of green time. The fourth major movement (southbound on) is a right turn off of Arsenal Road and goes concurrently with the throughs. (Please see attachment)

The results of the phased analysis are as follows.

	Existing	2009 Phase I	2010 Phase I&II	2011 Phase I,II,&III	2013 Phase I,II,III&IV	2016 Phase I,II,III,IV&V
Daily Traffic Volume (ADT)	8,170	9,300	13,300	18,510	22,190	27,400
Peak Hour Traffic Volume	817	900	1,225	1,745	2,095	2,520
Arsenal Road – Volume Capacity Ratio	0.27	0.31	0.39	0.56	0.69	0.84
Arsenal Road – Level of Service	A	A	A	B	B	D
Interstate 55 and Arsenal Road Southbound Existing Configuration – Delay	8.0	8.1	7.9	8.7	10.0	15.3
Interstate 55 and Arsenal Road Southbound Existing Configuration – Level of Service	A	A	B	A	B	B
Interstate 55 and Arsenal Road Northbound Existing Configuration – Delay	5.7	8.0	14.6	28.5	40.4	59.4
Interstate 55 and Arsenal Road Northbound Existing Configuration – Level of Service	A	A	B	C	D	E
Interstate 55 and Arsenal Road Proposed Configuration – Delay	N/A	6.0	6.1	6.2	7.7	13.8
Interstate 55 and Arsenal Road Proposed Configuration – Level of Service	N/A	A	A	A	A	B



As can be seen from the table, Arsenal Road will function at an acceptable capacity and level of service in all build phases of the project. It will reach LOS "D" in the full Phase V build-out which is acceptable to the traveling public.

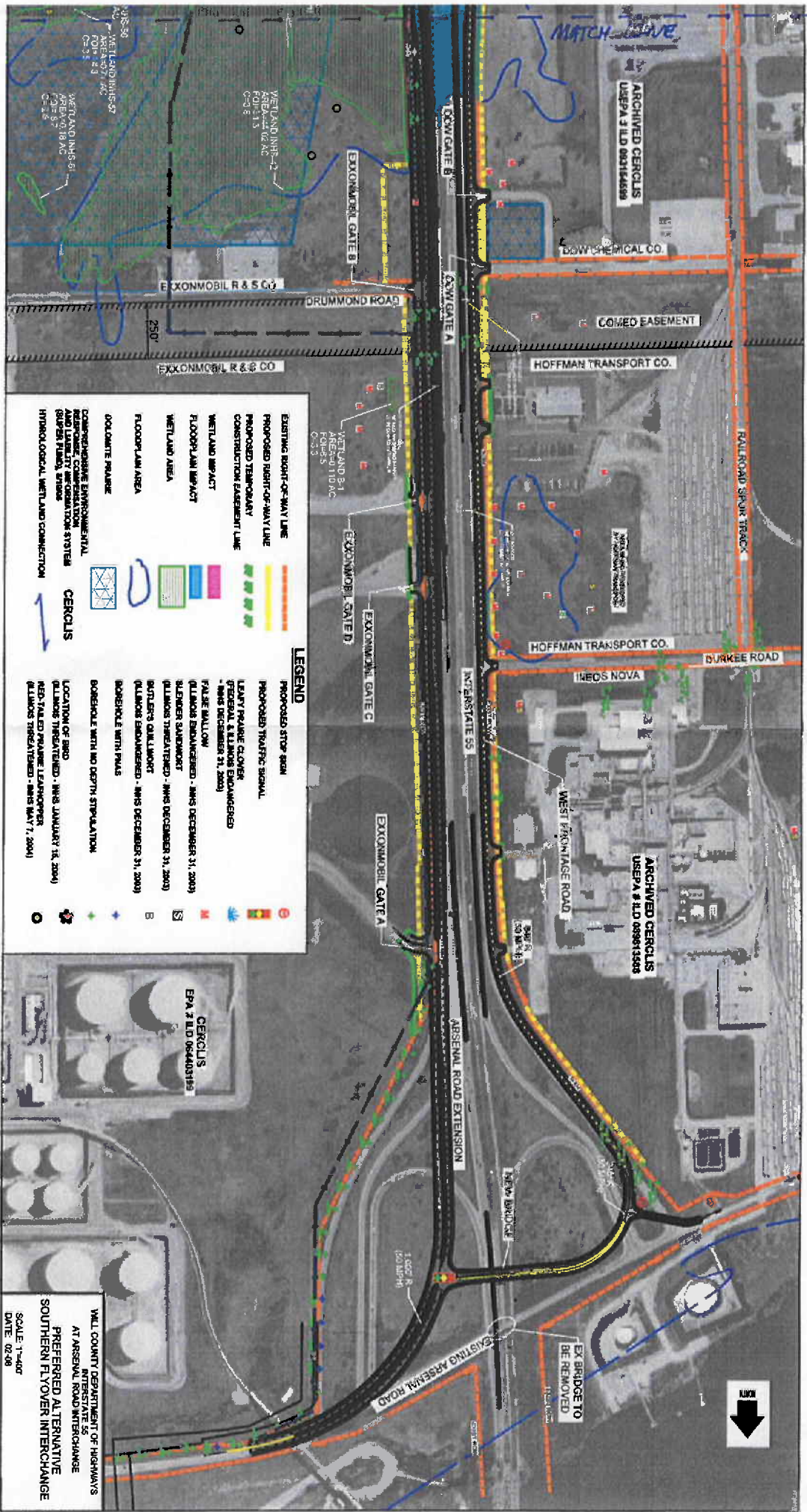
The existing interchange configuration at I-55 and Arsenal Road will also operate within its capacity at all phases of development. Although not desirable, the northbound ramp intersection will reach a low LOS "E" (nearly LOS "D") in the Phase V build-out, within its capacity. It is highly likely that the newly constructed interchange will be in place by the full capacity operational design horizon.

We trust this letter provides you with the information needed to review the traffic impacts to Arsenal Road. Please do not hesitate to call 314-209-0006 if you have any additional questions.

Sincerely,

Hanson Professional Services Inc.

Todd Artz, P.E., PTOE
Traffic Engineer



LEGEND

EXISTING RIGHT-OF-WAY LINE
 PROPOSED RIGHT-OF-WAY LINE
 PROPOSED TEMPORARY CONSTRUCTION EASEMENT LINE
 WETLAND IMPACT
 FLOODPLAIN IMPACT
 WETLAND AREA
 FLOODPLAIN AREA
 DOCKPILE PAVEMENT
 COMPENSATING ENVIRONMENTAL RESTORATION AND LITERACY ACQUISITION SYSTEMS (CALTS) STRIPS
 HYDROLOGICAL WETLAND CONNECTION

PROPOSED STOP SIGN
 PROPOSED TRAFFIC SIGNAL
 LEAN-Y PAVEMENT CROSSING GENERAL ALLIANCE ENHANCED - MMS DECEMBER 31, 2003
 PALM YALLOW
 ALLIANCE ENHANCED - MMS DECEMBER 31, 2003
 BLENDER SIGNMENT
 ALLIANCE THREATENED - MMS DECEMBER 31, 2003
 BUTLER'S CUM LUMPT
 ALLIANCE ENHANCED - MMS DECEMBER 31, 2003
 BOBWHOLE WITH PAVS
 BOBWHOLE WITH NO DEPTH STIPULATION

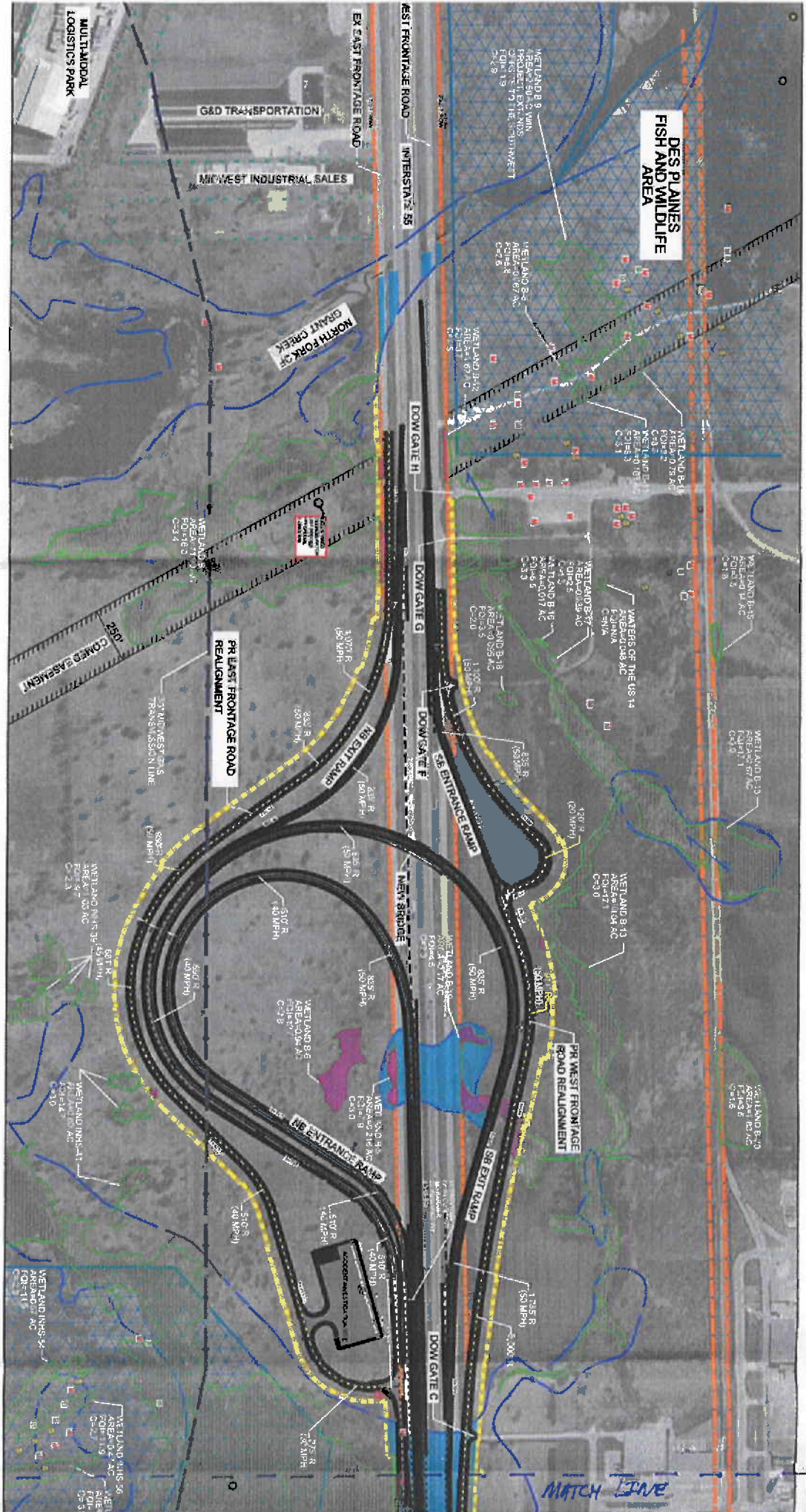
CERCLIS
 LOCATION OF BRID
 ALLIANCE THREATENED - MMS JANUARY 18, 2004
 RES TALKED PAVEMENT LEAN-Y PAVEMENT
 ALLIANCE THREATENED - MMS MAY 7, 2004

SCALE 1"=400'
DATE 02-98

WALL COUNTY DEPARTMENT OF HIGHWAYS
 AT ASSEVAL ROAD INTERCHANGE
 PREFERRED ALTERNATIVE
 SOUTHERN FLYOVER INTERCHANGE
 SCALE 1"=400'
 DATE 02-98



DES PLAINES FISH AND WILDLIFE AREA



MULTI-MODAL LOGISTICS PARK

G&D TRANSPORTATION

MIDWEST INDUSTRIAL SALES

NORTH FORK OF GRANT CREEK

PR EAST FRONTAGE ROAD REALIGNMENT

PR WEST FRONTAGE ROAD REALIGNMENT

MATCH LINE