UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORK

In re:	**FOR PUBLICATION**
MOTORS LIQUIDATION COMPANY, f/k/a GENERAL MOTORS CORPORATION, *et al.*,	Chapter 11
	Case No. 09-50026 (MG) (Jointly Administered)
Debtors.	
MOTORS LIQUIDATION COMPANY AVOIDANCE ACTION TRUST, by and through the Wilmington Trust Company, solely in its capacity as Trust Administrator and Trustee,	
	Adversary Proceeding
Plaintiff,	Case No. 09-00504 (MG)
against	
JPMORGAN CHASE BANK, N.A., *et al*.,	
Defendants.	

MEMORANDUM OPINION REGARDING FIXTURE CLASSIFICATION AND VALUATION

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MARTIN GLENN
UNITED STATES BANKRUPTCY JUDGE

I. INTRODUCTION[1]

The Defendants are a group of Old GM's creditors referred to as the Term Lenders, who initially held a security interest in approximately $1.5 billion of Old GM's assets, with a perfected security interest resulting from a UCC-1 Statement filed in Delaware. In earlier stages of this litigation (described below), the perfected security interest of the Term Lenders resulting from the Delaware UCC-1 filing was terminated when a UCC-3 Termination Statement was mistakenly filed in Delaware. Despite the filing of the UCC-3 Termination Statement in Delaware, the Defendants allege that, at the time of the 363 Sale they held a perfected security interest in over 200,000 fixtures at GM plants because of twenty-six Fixture Filings in counties where disputed assets were located. The Defendants argue that these fixtures should be valued according to their replacement cost new less depreciation, as part of a going-concern business. The Avoidance Action Trust, on behalf of Old GM's unsecured creditors, disputes whether most of these assets are indeed fixtures, and if they were, it argues that they should be valued at their liquidation value.

It is impractical, to say the least, to litigate issues with respect to each of the over 200,000 disputed assets. Therefore, in pretrial proceedings, the Court directed the parties to designate forty representative assets to be the subject of this trial. The Court indicated that it would issue an opinion regarding which assets are fixtures and how to value them. The parties agreed that after the issuance of this Opinion, they would attempt to settle as to the remaining disputed assets. In an effort to provide guidance to the parties in resolving the remaining disputes, the

[1] Capitalized terms in the Introduction are defined below.

Court includes extensive factual detail in this Opinion. Where possible, the Court has articulated broad principles of both fixture and valuation law to serve as guiding principles for the more than 200,000 assets that remain in dispute.

A. Fixtures

The representative forty assets were located at General Motors facilities in Michigan and Ohio. Disputed assets were located in other states as well, but the disagreement between the Plaintiff and Defendants touches on the fundamental nature of manufacturing assets located at GM's plants: which ones were "fixtures" that remained subject to the Term Lenders' perfected security interests when the chapter 11 cases were filed; and, for those fixtures, what are the appropriate valuation principles?

The Defendants maintain that hundreds of thousands of General Motors assets were fixtures that remained part of the Lenders' perfected security interest after the UCC-3 Termination Statement was filed in Delaware. The Plaintiff disagrees, and argues that just about every asset located inside General Motors facilities was not a fixture. The forty "representative" assets are characteristic of thousands of other GM assets. Hopefully, with the benefit of this Opinion, the parties will be able to resolve the balance of their dispute through settlement.[2]

The Representative Assets selected by the parties range from enormous stamping presses and machining equipment, to high-tech robotic arms, to long and winding conveyor systems, and even include a software program. The assets, many of which the Court observed in operation during a site-visit with the parties, perform a wide assortment of tasks. Presses stamp sheet metal into auto body parts; robots conduct precision welding generating a cascade of sparks

[2] With over 200,000 assets remaining in dispute, in the event the Court is required to make individual determinations on each of these 200,000 assets, cars very well might be flying around Mars by the time the dispute is fully adjudicated.

along an intricate assembly line; and sophisticated paint sprayers coat auto parts in a state-of-the-art paint shop described at trial as truly "beautiful."

Throughout this case, several principles have emerged from both the case law and the nature of the assets involved that have assisted the Court in making its ultimate determinations. First, the presence of a concrete pit, specialized foundation, or trench attendant to an asset weighed heavily in favor of finding that an asset was a fixture. As borne out by the case law, the permanence of concrete evidences both a strong level of attachment, and also a forceful intent that an asset remain in place permanently. Second, given the highly interconnected nature of the assets in the manufacturing and assembly process at these facilities, the Court found it useful to look at the level of integration and interconnectedness that an asset had with the production and assembly process and surrounding assets. An asset highly integrated into the assembly line or manufacturing process, including with respect to other assets adjacent or attached to it, cannot be easily removed or relocated without bringing the manufacturing and assembly to a halt, and are stronger indications that the asset was intended to remain in place permanently as an accession to the realty. This is particularly true where a group of assets fit together in a specific amalgamation, and one or more of the assets is installed in concrete. On the other hand, an asset standing on its own, separate from the manufacturing and assembly process and other assets, necessarily has a lower level of integration with the assembly line and manufacturing process, and there is a lesser indication of an intent for permanence. These principles, explained more fully below, will hopefully assist the parties as they endeavor to resolve the disputes surrounding the remaining assets in question.

B. Valuation

The crux of the valuation task the Court faces is this: how can the Court isolate the value of individual assets from the historic government intervention in the 363 Sale? The Plaintiff

argues that the Court should pretend the 363 Sale never happened: without the so-called Public Policy Subsidy and government intervention, Old GM would have liquidated, New GM would not be manufacturing automobiles today, and all of Old GM's assets would be valued at their liquidation value—most for scrap. But that is not the world we live in. Defendants urge the Court to value the Representative Assets according to an intermediate step in a contemporaneous valuation by KPMG[3]: "RCNLD," which values assets at their replacement cost new less certain depreciation and utilization-based economic obsolescence, but which *omits* a downward adjustment for economic obsolescence according to the earning power of the business at the time and under the circumstances of the 363 Sale in June 2009 during the Great Recession. Essentially, Defendants ask the Court to value the Representative Assets as if they were part of a business with guaranteed earnings to support the assets' value. That is not the world we live in, either.

Instead, the Court now exercises its discretion to craft the best available valuation from the evidence presented at trial. The Court largely rejects the two options presented by the parties and instead finds that the KPMG values, *including* the earnings-based downward adjustment, are the best valuation methodology for the Old GM assets sold to New GM that were expected to remain in continued use. It would not be appropriate to include the value of the Public Policy Subsidy in the individual valuation of the Representative Assets. But teasing out the value of the Public Policy Subsidy does not require resorting to a counterfactual hypothetical world in which the 363 Sale never occurred. The Court finds that, for the Representative Assets that were sold to New GM, a "going concern in continued use" premise of value is appropriate. Those assets

[3] New GM was required for financial reporting purposes to value acquired assets using "fresh start accounting" principles. While Deloitte was New GM's public accounting and auditing firm, KPMG was retained to value the acquired assets.

were intended to be sold as part of a going concern business; they were indeed sold; and most of them are still in operation to this day. Valuing those assets under a liquidation premise would disregard their proposed disposition on the Valuation Date, run counter to the facts of this case, and significantly deprive the Defendants of the going concern value of their collateral.

However, the Court disagrees with Defendants that RCNLD is the best valuation of the Representative Assets. KPMG's RCNLD values take into account depreciation, physical obsolescence, and utilization-based economic obsolescence, but not whether the projected earnings of the business support the valuation of the assets. RCNLD was essentially a midpoint in KPMG's valuation process; after calculating the RCNLD, KPMG applied a 55% reduction to certain categories of assets (including the Representative Assets) to account for its assessment of GM's Total Invested Capital, or TIC. The parties and the Court refer to this 55% downward adjustment as the TIC Adjustment. KPMG described the TIC Adjustment as a necessary step to reach a value for the assets that an ordinary private market participant would pay—in other words, the value of the assets without the Public Policy Subsidy. Defendants' attacks on the TIC Adjustment, whether from an accounting standpoint or by attacking KPMG's valuation of New GM's TIC, are impermissible attempts at Monday-morning quarterbacking. KPMG's Final Fair Value, including the TIC Adjustment, was a contemporaneous, third-party valuation that was the product of months of hard work by experienced professionals, and unlike the opinion testimony of the other experts in this case, it was not done for litigation purposes. The Court finds that for the assets sold to New GM, KPMG's Final Fair Value is the best available evidence of the assets' value.

In keeping with the principle that assets should be valued according to their proposed disposition on the Valuation Date and not a hypothetical outcome, the two Representative Assets

that were not sold to New GM should not be valued on a going-concern premise. Those assets were intended on the Valuation Date to remain with the Motors Liquidation Co. estate and be liquidated within one to two years; and so they were. Consistent with their proposed disposition on the Valuation Date, the Court adopts liquidation value for those assets.

Valuing the hundreds of thousands of assets the Defendants contend are collateral for the Term Loan is no less daunting than assessing whether those assets are fixtures. The Court recognizes—as the parties likely do—that individual appraisal of over 200,000 assets is simply not feasible. The Court hopes that by articulating the principles that follow in this Opinion, the parties will be able to resolve the dispute through settlement.

II. BACKGROUND

A. Brief History of Old GM

For over one hundred years, General Motors Corporation ("Old GM") and its approximately 463 direct and indirect wholly-owned subsidiaries were a major part of the U.S. manufacturing and industrial base and the market leader in the U.S. automotive industry. (JX-6 at 4.) Old GM was the largest Original Equipment Manufacturer ("OEM") of automobiles in the U.S. and the second largest OEM in the world. (JX-6 at 10.) As of March 31, 2009, Old GM employed approximately 235,000 persons worldwide, with approximately 91,000 employed in the U.S.

Old GM utilized many thousands of different suppliers; approximately 11,500 of those suppliers were located in North America. *In re Gen. Motors Corp.*, 407 B.R. 463, 476 (Bankr. S.D.N.Y. 2009). At least hundreds and possibly thousands of automotive parts suppliers depended on Old GM for survival.

B. Events Leading to Bankruptcy

1. Term Loan Agreement and Collateral Agreement

In 2006, GM obtained a $1.5 billion seven-year term loan (the "Term Loan"), evidenced by a note pursuant to the Term Loan Agreement.[4] (ECF Doc. # 962 ("Joint Pretrial Order" or "JPTO") ¶ 44.) JPMC was the administrative agent under the Term Loan Agreement. (*Id.* ¶ 46.) To secure their obligations under the Term Loan, GM and Saturn granted to JPMC, pursuant to a November 29, 2006, collateral agreement, among Old GM, Saturn and JPMC, a first priority security interest in certain equipment, fixtures, documents, general intangibles, all books and records and their proceeds. (*Id.* ¶ 47.) A UCC-1 financing statement (the "UCC-1 Statement") was filed with the Secretary of State of Delaware which perfected the Term Lenders' security interest in all of the Collateral "now owned or at any time hereafter acquired" by Old GM and its affiliates. (*Id.* ¶ 48.)

The Term Loan Agreement contemplated that fixture filings would be filed in county real estate records ("Fixture Filings") with respect to each of the "Material Facilities" in the corresponding office of the County Clerk for the counties where the Material Facilities were located. (*Id.* ¶ 50.) "Material Facilities" is defined in the Term Loan Agreement as manufacturing facilities listed on Schedule 1 to the Term Loan Collateral Agreement where Collateral with a net book value of at least $100,000,000 was installed or located. (*Id.* ¶ 51.) Twenty-six Fixture Filings were made. (*Id.* ¶ 52.)

The Term Loan was a complex syndicated commercial financing, pursuant to which JPMC, Credit Suisse, Cayman Islands Branch, ABN AMRO Bank N.V., Barclays Bank PLC,

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[4] The "Term Loan Agreement" refers to the term loan agreement dated as of November 29, 2006, amended by that certain first amendment dated as of March 4, 2009, between GM, as borrower, JPMorgan Chase Bank, N.A. ("JPMC"), as agent, the Bank Lenders (as defined therein), various institutions as agents and Saturn Corporation ("Saturn") as guarantor, pursuant to which GM obtained the Term Loan.

The Bank of New York, and National City Bank (collectively, the "Bank Lenders") committed upfront to fund the Term Loan. (Term Loan Agreement ¶ 2.01, Ex. 1.) The Bank Lenders then had the right to sell, typically through assignments, interests in the Term Loan and the accompanying note in the secondary market to a variety of investors. (*Id.* ¶ 10.06.) The Bank Lenders ultimately assigned some or all of their interests in the Term Loan, and over 500 sophisticated entities became lenders under the Term Loan Agreement (the "Term Lenders"). ("Amended Complaint," ECF Doc. # 91 ¶¶ 15–568.)

Prior to entering into the Term Loan Agreement, GM entered into a synthetic lease (the "Synthetic Lease") on October 31, 2001, by which GM obtained up to approximately $300 million in financing from a syndicate of financial institutions. *In re Motors Liquidation Co.*, 777 F.3d 100, 101 (2d Cir. 2015). The Synthetic Lease was documented by a Participation Agreement dated as of October 31, 2001, with JPMC acting as administrative agent. *In re Motors Liquidation Co.*, 486 B.R. 596, 606 n.13 (Bankr. S.D.N.Y. 2013), *rev'd*, 777 F.3d 100 (2d Cir. 2015) [hereinafter *Bankruptcy UCC Opinion*]. GM's obligation to repay the financing under the Synthetic Lease was secured by liens on certain real properties. *Id.* at 606.

Outstanding amounts under the Synthetic Lease were paid off and the Synthetic Lease was terminated on October 30, 2008, and the liens on real estate and related assets were released. *Id.* at 608–14. On October 30, 2008, GM's counsel, with respect to the Synthetic Lease, caused the filing of UCC-3 termination statements with the Delaware Secretary of State. *Id.* As part of that filing, JPMC and its counsel erroneously authorized the filing of a UCC-3 termination statement (the "Termination Statement") terminating the UCC-1 Statement securing the Term Loan. *Id.* Specifically, the Termination Statement provided that the "[e]ffectiveness of the

[UCC-1] Statement . . . is terminated with respect to security interest(s) of the Secured Party authorizing [the] Termination Statement."[5] (Am. Compl. ¶ 582, Ex. 2.)

2. Financial Difficulty at GM and the Automotive Industry Generally

In 2008, as a result of a decline in market demand for full-size trucks and SUVs, competition from foreign automakers, rising oil prices and overall economic conditions, as well as rising structural costs relating to labor, GM was facing financial difficulties including impaired liquidity. (*See* JPTO ¶¶ 1–9; Trial Tr. (Worth) at 1801:24–1802:14; Keller Direct ¶¶ 22–25.) With the growth of competitors, between 1980 and early 2009, Old GM's market share for new North American vehicle sales dropped from approximately 45% to approximately 19.5%.

The pressure mounted in the fall of 2008 with a contraction of the credit markets, lowering of consumer confidence, high unemployment, and a further drop in consumer discretionary spending. These factors contributed to a downturn in auto sales.

Old GM was also burdened with significant structural costs, union restrictions, pension and healthcare obligations, an inefficient dealership network, and several failed brands. These pressures and burdens resulted in Old GM facing a capital shortfall. (JPTO ¶¶ 8–9.)

The price of Old GM's common stock declined from $23.19 to $0.75 per share from May 1, 2008 to May 29, 2009 (the last trading day before the June 1, 2009 filing of Old GM's Chapter 11 petition). In its Form 10-Q filed on May 8, 2009, Old GM reported consolidated global assets of approximately $82 billion and liabilities of approximately $172 billion, as of March 31, 2009.

[5] The Termination Statement did not release the liens securing the Term Loan arising from twenty-six "fixture filings" that were intended to perfect security interests in "fixtures" located in GM's plants in different states, including Michigan, Ohio and Louisiana.

That same Form 10-Q reported total net revenue had decreased by 47.1% in the first quarter of 2009, as compared to the same period in 2008. (*Id.* ¶ 16.)

3. Failed Efforts to Engage with the Private Market

Prior to filing for bankruptcy, Old GM attempted to raise capital by selling certain business units and brands, including Saturn, Saab, Hummer, Opel, and AC Delco. Old GM also explored a merger with Chrysler, but no such merger took place. (*Id.* ¶ 10.)

In April 2009, Old GM attempted a public exchange offer to provide equity to its outstanding bondholders. The public exchange offer announced in April 2009 was unsuccessful. (*Id.* ¶ 12.)

Between 2008 and June 30, 2009, Old GM engaged in unsuccessful attempts to secure private financing. (*Id.* ¶ 13.) By all accounts, no private market participant was willing to make a deal with Old GM.

4. Government Intervention

In late 2008 and early 2009, the United States Government agreed to extend substantial financing to Old GM. In late 2008 and through June 30, 2009, the United States and Canadian Governments were concerned that if Old GM ceased operations, it would cause significant harm to the economy and exacerbate the financial crisis. (*Id.* ¶ 19.)

a) TARP, Treasury Prepetition Loans, and the Viability Plans

The United States Government implemented programs to assist the automotive industry through the U.S. Treasury and its Presidential Task Force on the Auto Industry pursuant to the Troubled Asset Relief Program ("TARP"). (*Id.* ¶ 20.)

On December 31, 2008, the Government agreed to provide Old GM with a bridge loan of up to $13.4 billion on a senior secured basis (the "Treasury Prepetition Loan") under TARP. Old GM drew $4 billion on that Treasury Prepetition Loan in December 2008. It then drew $5.4

billion more between December and February 2009, and the remaining $4 billion on February 17, 2009. (*Id.* ¶ 22.)

On March 30, 2009, the President of the United States announced that the United States Government would extend to Old GM adequate working capital for a period of another sixty days to enable it to continue operations, and that it would work with Old GM to develop and implement an appropriate viability plan. (*Id.* ¶ 23.)

On April 22, 2009, the United States Government and Old GM entered into amended credit agreements for the Treasury Prepetition Loan. On April 24 2009, Old GM received a second TARP loan of $2 billion. On May 20, 2009, Old GM received a third TARP loan of $4 billion. Old GM had borrowed a total of $19.4 billion from the U.S. Government by the end of May 2009.

As a condition to the TARP loans, Old GM was required to submit viability plans. Old GM ultimately submitted five versions of its viability plan to the United States Government. The first four were rejected. The United States Government accepted the fifth viability plan, Viability Plan 4B ("VP-4B"), which contemplated additional government funding in connection with a bankruptcy filing. (*Id.* ¶¶ 28–30.)

C. GM's Bankruptcy, the DIP Financing Order, and the 363 Sale

On June 1, 2009 (the "Petition Date"), GM and certain of its subsidiaries filed voluntary petitions for relief under chapter 11 of title 11 of the Bankruptcy Code in this Court. As of the Petition Date, the outstanding principal balance under the Term Loan Agreement was in excess of $1.4 billion. (Am. Compl. ¶ 573.)

On June 3, 2009, the Office of the United States Trustee appointed the Official Committee of Unsecured Creditors of Motors Liquidation f/k/a General Motors Corporation (the "Committee") pursuant to section 1102 of the Bankruptcy Code.

On the Petition Date, the Debtors also filed the motion for debtor-in-possession financing (the "DIP Motion") seeking authority to obtain interim postpetition financing on a secured and superpriority basis up to a maximum aggregate interim amount of $15 billion and final postpetition financing on a secured and superpriority basis up to a maximum aggregate final amount of $33.3 billion under a DIP facility (the "DIP Facility") from the United States Department of Treasury and Export Development Canada. The DIP Facility was to be used to pay, among other things, certain prepetition claims and fund the Debtors' operations and administration costs. (*See* Am. Compl. ¶ 574.) The Court approved the DIP Facility, first on an interim and then on a final basis. (Interim DIP Order (Main Proceeding ECF Doc. # 292); DIP Order (Main Proceeding ECF Doc. # 2529).) Among other things, the DIP Order authorized repayment in full of the Term Loan. (Am. Compl. ¶ 578.)

Paragraph 19(d) of the DIP Order provides for full general releases of any and all claims against, among others, the holders of the Term Loan, *except*:

> that such release shall not apply to the Committee with respect only to the perfection of first priority liens of the Prepetition Senior Facilities Secured Parties (it being agreed that if the Prepetition Senior Facilities Secured Parties, after Payment, assert or seek to enforce any right or interest in respect of any junior liens, the Committee shall have the right to contest such right or interest in such junior lien on any grounds, including (without limitation) validity, enforceability, priority, perfection or value) (the 'Reserved Claims').

(DIP Order ¶ 19(d).)

Following entry of the DIP Order, the Debtors paid $1,481,656,507.70 to the Term Lenders in full satisfaction of all claims arising under the Term Loan Agreement. (Am. Compl. ¶ 578.)

Also on the Petition Date, Old GM filed a motion in this Court seeking approval to sell substantially all of its assets to a Government-sponsored entity in an expedited sale under Section 363 of the Bankruptcy Code (the "363 Sale"). The Government-sponsored entity purchasing Old GM's assets was to be a new company, NGMCO, Inc. ("New GM"). In other words, the Sale Motion contemplated that New GM would purchase Old GM's assets with a credit bid that would include Old GM's pre-petition TARP loans and the vast majority of the DIP Facility. (DX-4 at 9.) As additional consideration, New GM agreed to distribute to Old GM—for the benefit of Old GM's unsecured creditors—10% of the common equity of New GM, plus warrants to purchase an additional 15% of New GM's stock. (JPTO ¶ 36; DX-4 at 9.) As described further below, Old GM's financial advisor, Evercore, estimated that the total purchase price paid to Old GM was between $91.2 and $93.6 billion, and valued the common equity and warrants provided to Old GM at $7.4 to $9.8 billion. (JX-3 at 106.) The assets that New GM did not acquire would remain with Old GM, which was renamed Motors Liquidation Company. If any bid was higher or better than the existing terms of the 363 Sale, then, subject to Bankruptcy Court approval, Old GM's assets would be sold to that bidder. (JPTO ¶¶ 33, 39.) No other bids for Old GM's assets were submitted.

D. History of this Action

1. The Original Complaint and Summary Judgment Motions

On the July 31, 2009 deadline set out in the Final DIP Order, the Committee filed a complaint initiating this adversary proceeding (the "Original Complaint," ECF Doc. #1) against the Defendants. The Original Complaint's only asserted claim under section 544(a) was one to avoid liens based on the termination of the Delaware UCC-1 Statement. (Original Complaint ¶¶ 7–8, 426, 433–37, 439–41.) The Original Complaint did not challenge the validity, extent, or priority of any security interest arising from fixture filings. On cross-motions for summary

judgment, the Bankruptcy Court held that the termination of the UCC-1 Statement was ineffective unless it was authorized, and neither party intended to terminate it. *Bankruptcy UCC Opinion.*, 486 B.R. at 606.

The case was appealed directly to the Second Circuit which, after a decision by the Delaware Supreme Court on a certified question, held that the UCC-1 Statement was not effective as of the Petition Date due to the filing of the Termination Statement in October 2008. *See Motors Liquidation Co*., 777 F.3d at 105 ("[A]lthough JPMorgan never intended to terminate the Main Term Loan UCC-1, it authorized the filing of a UCC-3 termination statement that had that effect . . . . Nothing more is needed."). While the UCC-1 Statement no longer served to perfect the security interest in personal property at GM facilities, the Fixture Filings had been made in the offices of the County Clerks for the counties where the Material Facilities were located. The security interest in fixtures covered by the twenty-six Fixture Filings were unaffected by the UCC-3 Termination Statement filed in Delaware.

2. The Amended Complaint

After the appeal to the Second Circuit was resolved, the Avoidance Action Trust, as successor to the Committee, became the Plaintiff in this case. (JPTO at 1.) The Plaintiff amended the Original Complaint on May 20, 2015 (the "Amended Complaint," ECF Doc. # 91).[6] The Amended Complaint included a new paragraph, which stated:

> To the extent that some portion of the Collateral was secured and perfected by filings other than the [UCC-1] Statement (the "Surviving Collateral"), the value of the Surviving Collateral was less than the amount of the Term Loan Lenders' claim under the Term Loan Agreement, and Defendants were not entitled to receive the Postpetition Transfers to the extent that the amount of such transfers exceeded the value of the Surviving Collateral. The Surviving Collateral is of inconsequential value.

[6] After the filing of the Amended Complaint, many Term Lenders filed cross claims against JPMC. This Opinion does not address those cross claims.

(Am. Compl. ¶ 601.) Like the Original Complaint, the Amended Complaint only asserts a section 544 claim regarding the termination of the UCC-1 Statement, as the term "financing statement" in paragraph 601 refers to the "Delaware UCC-1." The "Surviving Collateral" referenced in paragraph 601 refers to collateral secured by the twenty-six fixture filings. As will be discussed further below, paragraph 601 is not an attack on the priority of allegedly unperfected security interests; it is an assertion that the assets actually covered by fixture filings are of "inconsequential value." Indeed, this assertion about the *value* of the fixtures is the underlying premise of the Plaintiff's case—that nearly everything at the GM plants are not fixtures, and those assets that are fixtures are of no real value.

On May 19, 2016, the Plaintiff filed a letter (the "May 2016 Letter," ECF Doc. # 613) raising for the first time an issue regarding the perfection and priority of liens on fixtures located at GM's Lansing Delta Township ("LDT") facility. In the May 2016 Letter, the Plaintiff explained that the LDT fixture filing identified a vacant parcel of land near the LDT plant. The Plaintiff noted that it planned to argue that "there is no surviving collateral at the Lansing plant" because of this error in the LDT fixture filing. (May 2016 Letter at 1.) The Amended Complaint was not amended after the May 2016 Letter was filed or at any time before or during trial.

E. The Court's Site Visit to LDT and Warren Transmission

The Defendants and the Motors Liquidation Company Avoidance Action Trust (the "Plaintiff") requested that the Court travel to Michigan to view many of the Representative Assets located at the Warren Transmission facility and the LDT facilities. (*See* ECF Doc. # 896.) On March 23, 2017, the Court entered the *Protocol Order for GM Site Visits* (the "Protocol Order," ECF Doc. # 897). The Protocol Order set forth the agreed-upon procedures (the "Protocol") for the Court to accompany the parties on a guided visit to view certain of the

Representative Assets located at the GM Warren Transmission facility and the facilities at Lansing Delta Township.

The Court visited Warren Transmission facility on April 4, 2017, and the LDT manufacturing facilities on April 5, 2017.[7] Pursuant to the Protocol, the parties prepared brief scripted statements that were read aloud when the Court was viewing each Representative Asset. The Court found the site visit to be a useful supplement to the testimony and photographic evidence provided at trial.

F. GM's eFAST Ledger

The database that GM uses for its fixed asset accounting is called eFAST. (Trial Tr. (Goesling) at 2928:3–25; *see also* Fulcher Dep. Tr. at 37:12–18.) The eFAST database contains extensive information about GM's assets, including approximately 425 different fields within eFAST that contain asset-specific information regarding financial accounting, federal tax accounting and property tax reporting. (Trial Tr. (Goesling) at 2928:3–25; *see also* PX-290 (describing categories of information contained in the eFAST database).)

For this litigation, New GM produced data extracted from eFAST regarding the forty Representative Assets. (PX-231 (eFAST extract).) The eFAST extract, PX-231, includes information relating to each fixed asset, such as: the Asset ID number; a description of the asset; the in-service date, which is the date the asset was capitalized and put into production (Fulcher Dep. Tr. at 41:25–42:2); the installed cost; Lease Contract (*i.e.*, whether the asset is subject to a lease); the manufacturer and model number; the Book Depreciable Life in years and months (*i.e.*,

[7] Transcripts were made during each of the site visits. The transcripts of the site visits are published on the docket. (ECF Doc. ## 987-1, 987-2.)

1300 in the column means 13 years, 0 months); and "PT Real Personal," which is GM's classification of an asset as real estate or personal property for tax purposes. (*Id.* at 46:23–47:1.)

III. FACTUAL BACKGROUND REGARDING RELEVANT GM PLANTS

A. GM Lansing Delta Township

GM's facility at Lansing Delta Township consists of stamping, assembly, and paint shop operations. These processes work together in a seamless work flow to produce more than one thousand vehicles each day.

1. The LDT Plant

The assembly operation at Lansing Delta Township ("Lansing Assembly") in Michigan was completed in 2006 and was the first greenfield plant in the U.S. designed to integrate the best of GM's flexible manufacturing processes. (Miller Direct ¶ 166; Stevens Direct ¶ 13.) With Lansing Assembly, GM's goal was to utilize the best and most recent learning and concepts, implementing in the U.S. the concepts that had been implemented in new plants around the world. (Stevens Direct ¶ 13.) Consistent with GM's global manufacturing system ("GMS"), LDT was designed with flexible framing stations and flexible tooling to enable the production of different models at the same time and to enable model changes over time with virtually no machinery and equipment changes and minimal tooling changes. (*Id.*)

Since it was completed in 2006, Lansing Assembly has always been physically and functionally integrated with the stamping operations ("Lansing Stamping"). (Miller Direct ¶ 166.) As a practical matter, Lansing Stamping and Lansing Assembly function as a single, integrated operation to produce a common line of crossover vehicles: the Chevrolet Traverse, GMC Acadia (production recently moved to another plant), and the Buick Enclave. (*Id.*) GM has managed Lansing Stamping and Lansing Assembly as a unified facility known as "LDT." (*Id.*) The two facilities are operationally integrated under the oversight of a single plant

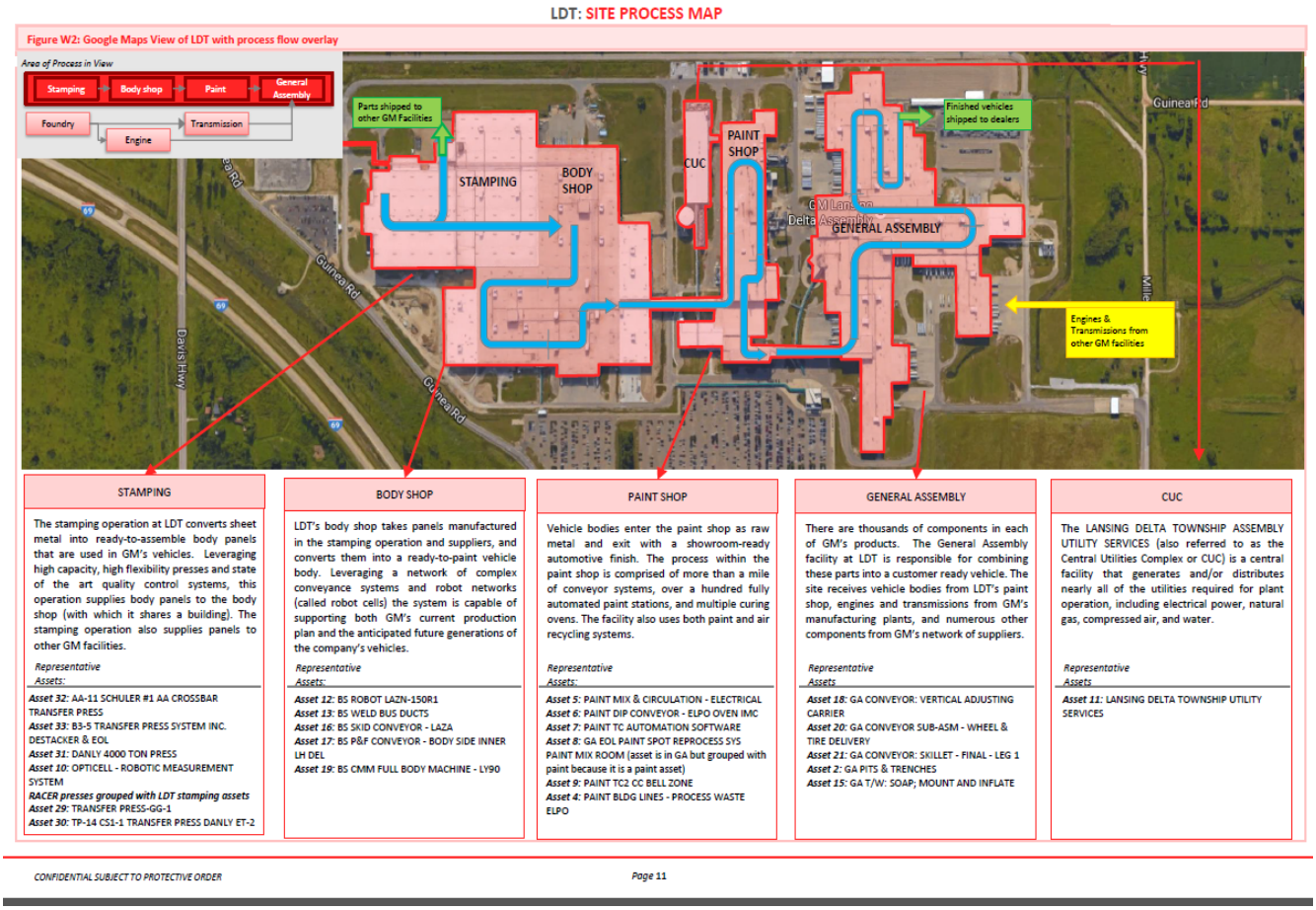
manager. (*Id.*) Structurally, the two "facilities" are in a single building. (*Id.* ¶ 167.) Employees walk freely from one "facility" to the other "facility" without leaving a building or passing through any security checkpoint. (*Id.*) The are no walls at all between Lansing Assembly's body shop and Lansing Stamping; both processes are performed in a single building. (*Id.*)

In simple terms, the output from Lansing Stamping is the input for Lansing Assembly. (*Id.* ¶ 168.) The presses in Lansing Stamping stamp nearly all of the sheet metal that is then assembled by sophisticated robots at the body shop of Lansing Assembly in the very same building. (*Id.*) Even when the plants are not operating, the schedules for maintenance-and safety-related shutdowns are coordinated across the two facilities. (*Id.*) In addition, the two plants are served by the same complex of utility assets—including the LDT Central Utilities Complex selected by the parties as one of the forty Representative Assets in this case. (*Id.*) Finally, Lansing Stamping and Lansing Assembly share: (a) information technology infrastructure; (b) maintenance tools and consumables; (c) parking lots; (d) site entrances; (e) security gates; (f) employee congregation areas; (g) storage areas; (h) testing facilities; (i) human resources personnel; and (j) facilities service providers. (*Id.*)

Since Lansing Assembly was constructed in 2006, GM has invested more than a half a billion dollars into it. (Trial Tr. (Stevens) at 422:25–423:6.) The investment supported numerous renovations, including reconfiguring portions of the subassembly area in the body shop as part of a model change, extending the buildings by 100 feet, and installing an additional 200 feet of conveyor. (*Id.* at 423:7–424:17.) Framing gates were also added to the framing stations in the body shop (*id.* at 427:7–16.) and the body shop expanded into the stamping facility. (Trial Tr. (Miller) at 1223:6–14.) Additionally, changes in equipment were made to

accommodate a new aluminum vehicle that was going into production. (*Id.* at 1119:17–1120:19.)

The paint shop is equally integrated into the operations at the LDT facilities. The following exhibit demonstrates the highly integrated production flow at LDT:



(Stevens Direct, Ex. A at 11.)

2. The Eaton County Fixture Filing

A Fixture Filing listing Old GM as the debtor was recorded on behalf of JPMorgan on April 26, 2007, in Eaton County, Michigan (the "Eaton County Fixture Filing"). It describes the collateral covered by it as "all fixtures located on the real estate described in Exhibit A." Exhibit A, as it is filed in the Eaton County Register of Deeds office, includes the following:

LIBER 2113 PAGE 662

EXHIBIT A

8400 MILLETT HWY, LANSING TOWNSHIP, LANSING MI 48917-9549

S 1/2 SEC 28 LYING W OF W LINE HWY I-96/69, EXC NW 1/4 OF SW 1/4, AND EXC PARTS S & E OF LINE COM 100 FT W OF S 1/4 COR SAID SEC, TH N 50 FT, E 400 FT, N 25 FT, E 188.65 FT TO W LINE SAID HWY R/W & POE, EXC LANDS USED FOR GUNIEA RD & MILLETT HWY; 144 ACRES +/-; SEC 28 T4N R3W

GM Assembly Lansing Delta
8400 Millett Hwy
Lansing, Easton County, MI
LandAmerica File No. 100729

The metes and bounds description in Exhibit A *describes a vacant parcel of land across the street to the North of the Lansing Facilities*. The parcel described in the metes and bounds description in Exhibit A is denoted in a red outline on ECF Doc. # 827, Ex. 1, a sketch plan of the metes and bounds description jointly commissioned by the parties. The street addresses for the Lansing Facilities include 8175 Millett Highway, Lansing, MI and 8001 Davis Highway. (JPTO ¶ 65.)

Plaintiffs' theory of this portion of the case is fairly simple: the Eaton County Fixture Filing was effective to perfect the Lenders' security interest in any fixtures on the vacant land—in other words, no fixtures; it was ineffective to perfect the Lenders' security interest on fixtures located in the Lansing Facilities where many fixtures are, in fact, located. As explained below, if Plaintiff had timely challenged the perfection and priority of the Lenders' security interest of the fixtures in the Lansing Facilities, the Plaintiff's argument may have succeeded. But Plaintiff did

not timely challenge perfection and priority and it is much too late to do so. It is still necessary to determine what is a fixture and how to value it.

B. Warren Transmission Plant Overview

The Warren facility, in Michigan, was acquired by GM from Ford in 1960. (Deeds Direct ¶ 36.) Over the ensuing six decades, GM has produced five products at Warren Transmission. (*Id.*) Each of those five products was produced with equipment that GM operated for twenty to forty-four years before being removed from the plant as obsolete. (*Id.* ¶¶ 36–39.) In the process of renovating the facility as each new product was introduced, the facility has changed dramatically, from sixteen separate buildings with one million square feet of floor space to one large building with about 2.1 million square feet of floor space. (Trial Tr. (Deeds) at 458:22–459:16.)

As GM's 4-speed transmission line was phased out, in 2006 GM installed a new line capable of producing 6-speed transmissions at Warren at a cost of $350 to 450 million. (Deeds Direct, Ex. A at 10.) The 6-speed line was installed in a portion of the plant that had previously manufactured suspension parts and wheels. The manufacturing equipment used to make those parts became obsolete and was removed. To accommodate the new 6-speed line, GM spent approximately $50 million to renovate that area of the Warren Transmission plant, including removing the floor down to the bare dirt and pouring a new floor, removing old utility piping and replacing it with new piping, upgrading all of the utilities, installing a new fire suppression system, installing a new lighting system and installing a new HVAC system. (Deeds Direct ¶ 43 & Ex. A at 10.) These renovations resulted in what was in effect a new building within the Warren Transmission facility. (Trial Tr. (Deeds) at 475:13–20.)

Prior to any renovations occurring, GM designed and specified the processes that the 6-speed transmission line would include, and the equipment that would be part of those processes.

(Deeds Direct ¶ 42.) The 6-speed equipment that GM selected, and the layout of the equipment, was thereafter specifically adapted to the Warren Transmission facility. (*Id.* ¶ 45.) Only then were the renovations to the plant carried out in order to adapt the building to accommodate the new 6-speed line. (*Id.* ¶¶ 42–43.)

The 6-speed line that resulted from this elaborate planning and renovation process is a complex assemblage of assets that takes steel and aluminum castings and produces completed transmissions that can be shipped to GM assembly plants, such as LDT, for inclusion in GM vehicles. (Deeds Direct, Ex. A at 11.) The line consists of four highly integrated but distinct areas: the transfer gear machining area, the planetary gear machining area, the transmission housing machining area and the transmission assembly area. (DX-103.) The two gear machining areas machine steel gear blanks to fine tolerances, producing twenty-three ready-to-install gears for each 6-speed transmission. (Deeds Direct, Ex. A at 11–12 (process overview); Trial Tr. (Deeds) at 480:11–481:3; DX-109 (schematic of planetary gear machining area, including Asset 36); DX-112 (schematic of transfer gear machining area, including Assets 22, 24 and 25).) The transmission housing machining area machines cast aluminum housings into the four finished transmission housings that each 6-speed transmission requires and then tests them. (Deeds Direct, Ex. A at 11–12 (process overview); Trial Tr. (Deeds) at 480:11–481:3; DX-104 (schematic of transmission housing machining area, including Assets 3, 14 and 23).) The assets in the transmission assembly area then combine the housings, gears and other components and extensively test each transmission; completed transmissions are then packed and shipped to assembly plants. (Deeds Direct, Ex. A at 11; Trial Tr. (Deeds) at 480:11–481:9; DX-110 (schematic of transmission assembly area, including assets 1 and 35).)

Warren Transmission also produces an electric-drive unit used in the Chevy Volt and Chevy Malibu Hybrid. (Deeds Direct, Ex. A at 10.) The electric-drive production area was formerly occupied by the 4-speed line, and the facility was renovated specifically to accommodate the electric-drive unit. (*Id.*; Trial Tr. (Deeds) at 464:19–465:9.) Consistent with its practice of renovating facilities around the specific process and equipment to be installed, GM has renovated only those areas of the former 4-speed transmission area that the electric-drive unit occupies—in all, about one-third of the space the 4-speed formerly used. (Trial Tr. (Deeds) at 464:19–465:9 (discussing DX-101).)

C. The Lean Agile Flex System

In powertrain, as in other areas of GM's manufacturing, fuel economy regulations and customer preferences started to shorten product cycles in the early 1990s. (Trial Tr. (Buttermore) at 1287:22–1288:11; Buttermore Direct ¶ 31.) In an attempt to adapt to a changing business environment, starting in 1994, GM began developing a "Lean Agile Flex" strategy for powertrain. (Trial Tr. (Buttermore) at 1291:11–13.) The strategy utilized computer numerically controlled technology in machines that cut or otherwise process metal castings (known as CNC machines). CNC machines perform one or more types of cutting and processing operations on a raw or semi-finished part to turn it into a finished component.[8] CNCs are flexible as their programming can be updated as new machining operations are required, without any mechanical alterations to or movement of the CNC machine itself. (Deeds Direct, Ex. A at 106, 16, 44, 50; Buttermore Direct ¶ 34; Trial Tr. (Buttermore) at 1288:13–1289:3.) By June 2009, GM was well

[8] The Liebherr Hobb (Asset 25) and Base Shaping Machine (Asset 24) are examples of CNC machines. They can each be programmed to machine any part that fits within their work envelope (the space within the machine where the transmission castings are placed to perform the shaping operations) in a variety of ways as specified by their programming.

on its way to implementing Lean Agile Flex technology in its powertrain plants. (Trial Tr. (Buttermore) at 1291:17–1292:5.)

The 6-speed transmission line installed at Warren Transmission between 2005 and 2007 embodied these Lean Agile Flex principles, and was specifically designed with sufficient flexibility to allow its major production assets—including nine of the Representative Assets—to operate in place for their useful lives. (Deeds Direct ¶ 40.) This equipment was more expensive but more flexible, consistent with GM's focus on building a Lean Agile Flex powertrain system.

D. Defiance Foundry Overview

The Defiance Foundry sits on a 420 acre plot in Defiance, Ohio. GM built the Defiance Foundry in 1948 and has operated it continuously as a foundry for almost seventy years. (Thomas Direct ¶ 22; Trial Tr. (Thomas) 744:2–11.) It operates as a foundry to this day. (*Id.; see also* Trial Tr. (Thomas) 867:15–19.)

Plants 1 and 2 are the two primary manufacturing plants at Defiance Foundry, and a number of smaller buildings support the foundry operation. Plant 1 opened in 1948 and has approximately 1.6 million square feet of floor space. GM opened Plant 2 in 1964 and then expanded it in 1972. It consists of approximately 1.1 million square feet. (Thomas Direct ¶¶ 28–29 & Ex. A, at 49.)

The Defiance Foundry turns scrap metal and metal ingots into cast metal parts—such as engine components (iron and aluminum blocks and cylinder heads; iron crank shafts) and transmission parts. These parts are then shipped to GM engine and transmission plants (like Warren Transmission), where they are further machined and assembled into finished engines and transmissions. (*Id.* ¶ 23.)

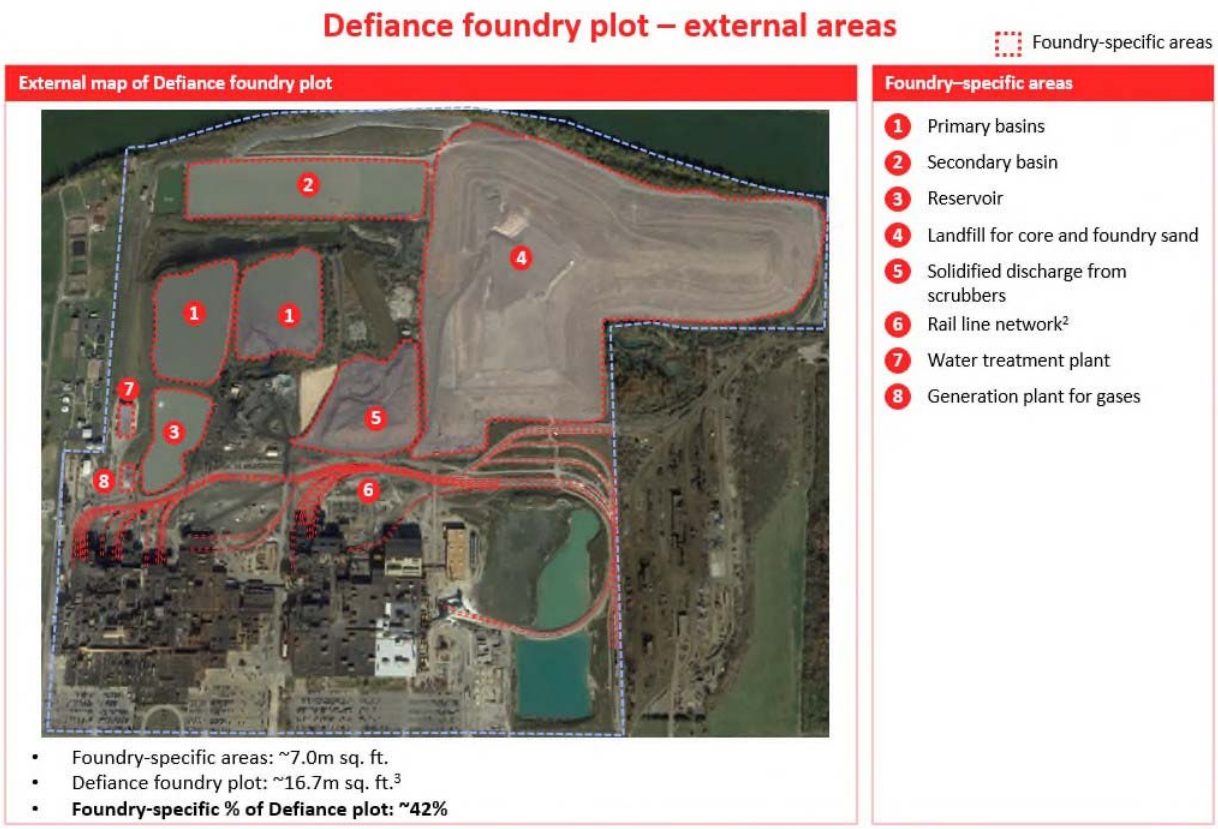
Directly adjacent to Plant 1 and Plant 2 are a number of external areas that are essential to the operations of the foundry. On the Defiance premises are ponds that collect water laden with

contaminated foundry sand and other waste, and that contain water used to cool the cupola shell, cool induction units, provide evaporative cooling for employees and for the air treatment system. (Thomas Direct ¶¶ 29, 30 (at Figure 3, Area 1) & Ex. A at 49 (Area A); Trial Tr. (Thomas) at 749:15–23.)

Also on the premises is a reservoir that stores water before it is pumped back to the plants for cooling. (Thomas Direct ¶ 30 (at Figure 3, Area 1) & Ex. A at 49 (Area C).) Relatedly, there is a large man-made berm built to protect the Maumee River from possible runoff of contamination from the property. (Thomas Direct, Ex. A at 49 (Area D); Trial Tr. (Thomas) at 750:12–19.) There is also an EPA-mandated landfill for toxic foundry sand that covers more than 25 percent of the 428-acre site and stores contaminated core and foundry sand[9] so that harmful waste does not escape to nearby water sources. (Thomas Direct ¶ 30 (at Figure 3, Area 4) & Ex. A at 49 (Area E); Trial Tr. (Thomas) at 748:13–749:3.) And importantly, running into the foundry plants is a rail line, comprised of a roughly five-mile railroad network that is unique to the requirements of the foundry for material unloading. (Thomas Direct ¶ 30 (at Figure 3, Area 6) & Ex. A at 50; Trial Tr. (Thomas) at 751:3–752:4, 752:8–12, 758:11–22; DX-1019.) There is also a water treatment plant that neutralizes waterborne contaminants generated by the foundry process. (Thomas Direct ¶ 30 (at Figure 3, Area 7) & Ex. A at 50.)

The following exhibit shows an overhead view of the foundry and its surrounding areas, including Plants 1 and 2 located at the bottom of the exhibit.

[9] A subsequent purchaser would be required to maintain compliance with foundry-specific EPA regulations for this area. (Thomas Direct, Ex. A at 49.) This landfill receives approximately 250–300 tons of toxic foundry sand each day. (Trial Tr. (Thomas) at 752:13–19.)



(Thomas Direct, Figure 2.)

E. MFD Pontiac and Powertrain Engineering

The Metal Fabricating Division (Stamping) Pontiac facility ("MFD Pontiac") is listed as one of the forty-two facilities on Schedule 1 of the Term Loan Collateral Agreement, and is a Material Facility for which a Fixture Filing was filed. (JPTO ¶ 70.) Accordingly, Defendants have a perfected security interest in any fixtures owned by Old GM at MFD Pontiac. (*Id.* ¶ 71.) GM Powertrain Engineering Pontiac ("Powertrain Engineering Pontiac") is not listed on Schedule 1 of the Term Loan Collateral Agreement. (*Id.* ¶ 72.) The parties dispute whether the Lenders have a perfected security interest in any fixtures located in Powertrain Engineering Pontiac.

Powertrain Engineering Pontiac is a research and development facility where GM designs, engineers, develops, and tests engines and transmissions. (Buttermore Direct ¶ 42.)

The engineering that takes place at Powertrain Engineering Pontiac is not specific to the manufacturing and production at MFD Pontiac. (Trial Tr. (Buttermore) at 1311:18–1312:7.) The work at Powertrain Engineering Pontiac has nothing to do with MFD Pontiac. (*Id.* at 1312:4–7.) Both facilities, however, get power, steam, and utilities by a utility trestle from the Central Utility Complex on the Pontiac North Campus. (Buttermore Direct ¶¶ 44–45.)

MFD Pontiac and Powertrain Engineering Pontiac have two different addresses and are located on opposite sides of the street. Powertrain Engineering Pontiac is located at 895 Joslyn Road, in Pontiac, Michigan. MFD Pontiac is located across the street (Glenwood Avenue) from Powertrain Engineering Pontiac at 220 East Columbia Ave. (Marquardt Direct ¶ 53.)

The street separating MFD Pontiac and Powertrain Engineering Pontiac is on a piece of land that Old GM deeded to the City of Pontiac, Michigan in 2008 to develop for public use. (Buttermore Direct ¶ 43; Trial Tr. (Buttermore) at 1312:8–10; Marquardt Direct ¶ 66). MFD Pontiac is located on a parcel currently numbered "14-17-476-002," while Powertrain Engineering Pontiac is currently on parcel number "14-21-102-001." (Marquardt Direct ¶ 61.)

F. The Forty Representative Assets

As noted above, Plaintiff's Amended Complaint alleges that the lien on the collateral securing the Term Loan was not perfected as of June 1, 2009, and to the extent that some portion of the collateral was perfected by filings other than the umbrella UCC-1, the value of that portion of the collateral was less than the amount paid to Defendants and Defendants were not entitled to receive payment in excess of that amount. Twenty-six other Fixture Filings covered the fixtures in a number of Old GM U.S. facilities; those Fixture Filings were filed in the records of the counties in which such facilities are located.

Following the filing of the Amended Complaint, Plaintiff and Defendants engaged in initial discovery of the scope and value of the Term Loan collateral. Based on that initial

discovery, it became clear that two principal issues divide the parties: (a) which of the over 200,000 assets of Old GM located in the facilities covered by the fixture filings are "fixtures," and (b) what is the proper methodology for valuing assets that are found to be fixtures.

In light of the broad scope of the dispute, the Court ordered this initial trial (the "Representative Assets Trial") that focused on forty representative assets selected by the parties (the "Representative Assets"). These forty assets are described below. At the Representative Assets Trial, the Court was asked to decide:

(a) Whether each of the forty Representative Assets is a fixture; and

(b) What principles should be applied in valuing the Representative Assets as of June 30, 2009 (the agreed upon "Valuation Date"), and what was the value of each Representative Asset as of the Valuation Date applying those principles.

The Court was also asked to decide three additional issues relevant to determining the scope of the Term Loan collateral:

(c) Whether Representative Asset No. 11, the CUC, is a fixture in which the Defendants had a perfected security interest as of June 1, 2009;

(d) Whether Defendants had a perfected security interest in the fixtures at the GM assembly and stamping facilities at Lansing Delta Township (the "Lansing Facilities") as of June 1, 2009, and whether Plaintiff's challenge to Defendants' security interest in the fixtures at the Lansing Facilities is time-barred; and

(e) Whether Defendants had a perfected security interest in the fixtures at GM Powertrain Pontiac Engineering facility, as of June 1, 2009.

A description of each of the forty Representative Assets is set forth below. The Court has grouped the assets by asset-type, rather than in order of the numbers assigned by the parties to each of the Representative Assets.

1. Presses

a) Representative Asset No. 30

The TP-14 CS1-1 Transfer Press Danly ET-2 ("TP-14 Transfer Press"), which was located at GM Metal Fabricating Division (MFD) Mansfield ("Mansfield Stamping"), is a transfer press that processes metal coil through a single ram that transforms the metal using large dies to produce finished automotive body parts. (JPTO ¶ 103.) The asset was put into service in September 1987 and had an installed cost of $4,636,106. (*Id.*) The press weighed 700 tons, stood 3 stories tall, and was 70 feet long and 55 feet wide. (Miller Direct ¶ 119.) It had double rolling bolsters that sat on rails installed in the concrete floor to allow for quick die changes. (*Id.*) The TP-14 Transfer Press was installed in a large pit and was mounted on four approximately four-foot by five-foot by twelve-foot reinforced concrete pillars that were secured to the bedrock below the plant. (*Id.*)

All of the presses, including the TP-14, were removed from Mansfield Stamping after it closed in 2010; none were sold with the building. (Trial Tr. (Miller) at 1149:15–23.) The process of removing the TP-14 Transfer Press was difficult, as the press could not be removed without disassembling it. (Miller Direct ¶ 126.) The removal project was scheduled to take three months. (*Id.*) It was sold by Maynards and Hilco in 2011 to Flex-N-Gate for $1.15 million (including a 15% buyer's premium). (JPTO ¶ 103; PX-96 (Bill of Sale Agreement between RACER and Flex-N-Gate Mexico).)

b) Representative Asset No. 31

The Danly 4000 ton press ("Danly Press") is a single ram, standalone stamping press that is used at LDT to validate dies before they are used in the production presses. (Miller Direct ¶ 103.) It weighs 775 tons, stands 3 stories tall, and extends 30 feet long and 20 feet wide. (*Id.*) Installation of the Danly Press required excavation of a custom pit in which four large, steel-reinforced concrete foundation pillars were anchored to the bedrock. (*Id.*) The asset was originally put into service in October 1980 at the GM Indianapolis stamping plant to make truck body components and had an installed cost of $2,729,407. (JPTO ¶ 104; Trial Tr. (Miller) at 1010:3–11.) It was moved and installed at LDT in 2003. (JPTO ¶ 104.)

The Danly Press is not a production press but is used instead to test or "tryout" new and repaired stamping dies without having to take one of LDT's production presses temporarily out of operation. (Miller Direct ¶ 104.) To perform its "tryout" function, the Danly Press is linked with the other presses at LDT through a network of mobile die carriers and overhead cranes that are installed in specific locations to allow the large dies to be removed from the production presses, moved to a rework area, and installed on the Danly Press for testing. (*Id.*) The Danly Press was moved to LDT Stamping in 2003 and it took three to six months to remove it and prepare it for shipment. (JPTO ¶ 104; Trial Tr. (Miller) at 1128:23–1129:13.)

c) Representative Asset No. 29

The GG-1 Transfer Press, which was located at GM Metal Fabricating Division (MFD) Grand Rapids, is a transfer press that processes sheet metal blanks through a series of two rams that transform the metal using large dies to produce finished automotive body parts. (JPTO ¶ 102.) The press was put into service in September 1989 and had an installed cost of $11,340,238. (*Id.*) The GG-1 Transfer Press weighed 1,100 tons, stood 3 stories tall, and extended 150 feet long and 75 feet wide. (Miller Direct ¶ 133.) It was installed in a sixteen to

twenty-foot deep pit on steel-reinforced concrete pillars anchored with pylons into the bedrock. (*Id.*) Support components were also installed to complete the press system, including a scrap conveyor, overhead crane, front-of-line component, and end-of-line component, and trenches were cut into the concrete floor to lay rails for the press's double rolling bolsters. (*Id.*)

The GG-1 Transfer Press was very similar to the Danly Press, although with a lower pressing capacity (3,000 and 1,500 tons for GG1 vs. 4,000 tons for the Danly Press), and it is likely that each press station of the GG-1 Transfer Press had the same basic components as the Danly Press—a bed and rolling bolsters, uprights, a slide, and a crown with top side drive system. (Goesling Direct ¶ 366.)

The GG-1 Transfer Press was left with Old GM and not included in the 363 Sale. It was sold by Maynards and Hilco with an electronic transfer rail system, and an end of line conveyor system as a single item (called a "lot") at the equipment auction of the Grand Rapids plant in November 2010 for $275,000 (excluding a 13.5% buyer's premium). (*Id.*; PX-94 (Asset list for Grand Rapids Auction); Goesling Direct ¶ 365.) It is not clear from the evidence at trial whether the GG-1 Transfer Press was sold for scrap value or for reuse; it was purchased by a press dealer, but the low sale price suggests scrap value. (Sofikitis Dep. Tr. at 69:22–70:1; Goesling Direct ¶ 369.) Removal of the press system for sale took over three months and left a sixty-foot by forty-foot hole in the plant floor. (Miller Direct ¶ 134.)

d) Representative Asset No. 32

The AA-11 Schuler No. 1 AA Crossbar Transfer Press ("AA Transfer Press") is a 2,800 ton, 200-foot long, 125-foot wide, and 40-foot tall transfer press. (Miller Direct ¶ 72.) It is the largest press system employed by GM, and it is used to fabricate large, paint-ready body panels from stacks of sheet metal as part of the stamping operations at GM's LDT plant. (*Id.*) It uses five rams, ten rolling bolsters, and interchangeable tooling (called "dies") to shape the sheet

metal. (*Id.*) The fabrication of body parts for vehicles is a necessary first step in the vehicle assembly process. (*Id.* ¶ 78.)

The AA Transfer Press was installed in 2003 and had an installed cost of $33,767,895. (JPTO ¶ 105.) The installation of the AA Transfer Press required GM to excavate a 100-foot long, 50-foot wide, and 12-20-foot deep pit to hold the press. (Miller Direct ¶ 73.) Twelve reinforced concrete pillars were installed (each measuring approximately four feet long by five feet wide by twelve to twenty feet tall), and those pillars were mounted by pylons into the bedrock below the building. (*Id.*) The press was "stacked" in place after arriving in pieces at LDT. (*Id.*) During stacking, the press was secured to each of the twelve foundation pillars with a six-foot long, two to three-inch diameter steel rod. (*Id.*) GM dug trenches adjacent to the press to install rails on which the press's ten rolling bolsters could ride. (*Id.*) The process of removing (or moving) the AA Transfer Press would take months, if not years, and cause significant disruption to operations and damage to the realty. (*Id.* ¶ 79.)

e) Representative Asset No. 33

The B3-5 Transfer Press System Incl. Destacker and End of Line ("B3-5 Transfer Press") is a 3-ram transfer press system used by GM to make stamped metal body parts that can be assembled in the body shop at LDT and the other assembly plants supported by LDT's stamping operations. (Miller Direct ¶ 85.) It weighs approximately 1,800 tons, stands 3 stories tall, and extends 260 feet long and 75 feet wide. (*Id.*) Installation of the B3-5 Transfer Press required GM to excavate an approximately 12- to 20-foot deep, 100-foot long, and 50-foot wide pit out of the floor of the building, and to install 8 reinforced concrete foundation pillars that are approximately 12 feet tall, 4 feet wide and 5 feet long. (*Id.*) This press system processes sheet metal blanks through a series of three rams that transform the metal using large dies to produce

finished automotive body parts. (JPTO ¶ 106.) The asset was put into service in 2003 and had an installed cost of $27,682,072. (*Id.*)

GM included the front-of-line and end-of-line components of the press system in the same Asset ID as the B3-5 Transfer Press itself. (Miller Direct ¶ 86.) The front-of-line component is a "destacker," which receives stacks of large metal blanks and then "destacks" them one at a time by feeding them into the press itself. (*Id.*) The end-of-line component receives the stamped finished panels from the press, provides an opportunity for manual quality inspection, and then prepares the stamped parts for delivery to the next operation. (*Id.*) Like the AA Transfer Press, the B3-5 Transfer Press' fabrication of body parts for vehicles is a necessary first step in the vehicle assembly process. (*Id.* ¶ 92.) Also like the AA Transfer Press, the process of removing (or moving) the B-35 Transfer Press would take months, if not years, and cause significant disruption to operations and damage to the realty. (*Id.* ¶ 93.)

f) Regarding the Two Leased Presses

The Defendants concede that they do not have a collateral interest in the AA Transfer Press (Representative Asset No. 32), because it is leased—not owned—by GM. (JPTO ¶ 66.) Shortly after its installation, the AA Transfer Press became subject to a sale/leaseback agreement which included the following covenant:

> The Lessee and the Lessor agree that the Equipment, each Unit and every Part thereof are severed from, and shall remain severed from, any real property and are readily moveable, and, even if physically attached to such property, it is the intention of the Lessee and the Lessor that the Equipment, each Unit and every Part thereof (i) shall retain the character of personal property, (ii) shall be removable without causing material damage to the real property, (iii) shall be treated as personal property with respect to the rights of all Persons whomsoever, (iv) shall not become part of any real property, and (v) by virtue of its nature as personal property, shall not be affected in any way by any instrument dealing with any real property. The Lessee shall not, without the prior written consent of the Lessor and, until the Lien of the Indenture shall have been discharged in

> accordance with its terms, the Indenture Trustee, and subject to such conditions as the Lessor and, until the Lien of the Indenture shall have been discharged in accordance with its terms, the Indenture Trustee may impose for their protection, affix or install any Unit to or in any real property in such a manner as to cause or permit such Unit to become a fixture or subject to the rights of any Person having an interest in such real property.

(PX-283 at 41.)

Like the AA Transfer Press, the Defendants concede that they do not have a collateral interest in the B3-5 Transfer Press (Representative Asset No. 33) because it is leased. (JPTO ¶ 106.) Shortly after its installation, the press became subject to a sale/leaseback agreement with an identical provision as that in the AA Transfer Press lease, under which GM agreed to maintain the B3-5 Transfer Press as personal property. (PX-220 at 38.)

The parties agree that GM has other transfer presses, similar to the AA Transfer Press and B3-5 Transfer Press, in other facilities, that are not subject to sale/leaseback agreements with provisions mandating that the presses remain personal property. Defendants contend that such presses are fixtures; Plaintiff maintains they are not fixtures. The Court will address whether Representative Asset Nos. 32 and 33 would satisfy fixture criteria but for the sale/leaseback restrictions. In the absence of sale/leaseback provisions, the Court finds that Representative Asset Nos. 32 and 33 would be classified as fixtures.

2. Conveyor Systems

There are eight conveyors included among the Representative Assets. Two of the conveyors are at Warren Transmission: Power Zone Roller Conveyor (Representative Asset No. 3) and Button Up and Test Conveyor (Representative Asset No. 35). Five of the conveyors are at Lansing Delta Township Assembly: Paint Dip Conveyor (Representative Asset No. 6); Skid Conveyor (Representative Asset No. 16); P&F Conveyor (Representative Asset No. 17); Wheel & Tire Delivery Conveyor (Representative Asset No. 20); Skillet Conveyor System

(Representative Asset No. 21). One of the conveyors is at Defiance: Core Delivery Conveyor (Representative Asset No. 26).

a) Representative Asset No. 3

The Power Zone Roller Conveyor Automation TCH MOD 3, which is located at Warren Transmission, is a powered conveyor system that moves rough transmission housing castings through a number of Computer Numerically Controlled, or "CNC," milling machines that mill the housings to GM's specifications and then delivers the milled housings to smoothing and testing machines. The asset was put into service in February 2007 and had an installed cost of $1,053,051. (JPTO ¶ 76.)

Asset No. 3 consists of a number of straight, fourteen-inch wide power roller conveyor sections, three overhead workpiece transfer bridges with light curtains, four rotary table conveyor sections for direction changes, and a human machine interface ("HMI") control panel. (Goesling Direct ¶ 247.)

Asset No. 3 is largely attached to the realty by bolts; the overheard transfer bridges are supported by steel tube legs that are attached to the floor slab with lag bolts. (*Id.* ¶ 250.) The bridge supports are connected to the eight-foot long bridge track using bolts, and an underhung carriage is attached to the bridge track by four roller track wheels and can easily be removed at either end of the track. (*Id.*; JX-1027.)

b) Representative Asset No. 6

The Paint Dip Conveyor – ELPO Oven IMC, which is located throughout the LDT paint shop, is a conveyor system that carries vehicle bodies through the Electro-coat Paint-curing Operation, or ELPO, process. The conveyor spans all three operating levels of the paint shop and transports vehicle bodies through the ELPO system's curing ovens. The asset was put into service in November 2006 and had an installed cost of $1,107,185. (JPTO ¶ 79.)

Asset No. 6 consists of approximately 1,500 feet of conveyor track, load and unload stations, two main electric drives, and standalone control panels. (Goesling Direct ¶ 182.)

Asset No. 6 is largely attached to the realty by bolts; the conveyor track is constructed in modular sections of three to twenty feet in length, connected by eight nut and bolt fasteners. (Goesling Direct ¶ 185; *see also* Trial Tr. (Topping) at 989:24–990:5, 20–23; JX-1067.)

Defense expert Steven Topping testified that Asset No. 6 "is a necessary part of the ELPO Process, which is a critical step in the paint-shop process," and that "the facility was clearly customized to support this Conveyor." (Topping Direct ¶ 47.)

c) Representative Asset No. 35

The Button Up and Test Conveyor System, which is located at Warren Transmission, is a conveyor system that moves transmissions through the final leg of the transmission assembly and testing process. The asset was put into service in June 2006 and had an installed cost of $2,689,706. (JPTO ¶ 108.)

Asset No. 35 consists of an eighteen-inch-wide powered friction roll conveyor modules, rotary tables, elevator and lowerator sections, a control panel, and a human machine interface. (JX-1523; Goesling Direct ¶ 253.) Asset No. 35 is 340 total linear feet of conveyor and assembled from conveyor frame modules that are approximately 25 feet long. (Goesling Direct ¶ 257.)

Defense expert Deeds testified that Asset No. 35 "is a necessary, customized component of the final assembly line for completed transmissions [and] was also specifically designed for the layout of Warren Transmission's assembly area," with a glass wall built around the Asset "to separate the assembly building process from the shipping dock." (Deeds Direct ¶ 178.)

Asset No. 35, including the conveyor sections (JX-1527), the rotary tables (JX-1531), and the control panel (JX-1524), is largely attached to the realty by bolts. (Goesling Direct ¶ 256.)

d) Representative Asset No. 16

The Body Shop Skid Conveyor, which is located at the Lansing Facilities, is a skid conveyor system that includes the conveyor itself and the mezzanine. The Defendants maintain that the support steel was included in GM's fixed asset ledger as part of this asset; Plaintiff maintains that the support steel was not included in GM's fixed asset ledger as part of this asset. This conveyor transports skids carrying complete vehicle body frames from the end of the outer framing line, where the outer body frames are welded to the inner body structures, to the start of the area where doors, hoods, lift gates and fenders are added. The asset was put into service in November 2006 and had an installed cost of $2,495,283. (JPTO ¶ 89.)

Asset No. 16 consists of over 1,000 linear feet of powered roller-bed conveyor track assembled from 20-foot long conveyance sections. (Trial Tr. (Stevens) at 109:2–110:10; Goesling Direct ¶ 142.) It is mounted on the mezzanine structure and is made up of modular roller bed sections, the majority of which have legs that are bolted directly to the mezzanine and three of which are mounted on pivoting units, allowing a skid to change direction. (JX-1240; Goesling Direct ¶¶ 142, 145.)

Asset No. 16 is largely attached to the realty by bolts; it is mounted on a mezzanine, which is in turn suspended by steel members that are attached to the building trusses by removable clips. (JX-1185; Goesling Direct ¶ 145.)

e) Representative Asset No. 17

The Body Shop Power and Free Conveyor, which is located at the Lansing Facilities, is an overhead power and free conveyor system that includes the conveyor itself and the mezzanine structure. Defendants maintain that the support steel was included in GM's fixed asset ledger as part of this asset; Plaintiff maintains that the support steel was not included in GM's fixed asset

ledger as part of this asset. The conveyor transports complete inner body subassemblies for the left side of the vehicle to the inner body framing station, where they are joined to other inner body frame components. The asset was put into service in November 2006 and had an installed cost of $1,649,074. (JPTO ¶ 90.)

Asset No. 17 consists of over 2,000 linear feet of overhead conveyor track, a positioner unit, two chain drive units, two chain take-ups, trolley/load bar units, control cabinets, and access platforms and mezzanines. (Goesling Direct ¶ 138.)

Asset No. 17 is largely attached to the realty by bolts; the sections of the conveyor track are connected to each other with nut and bolt fasteners. (JX-1262; Goesling Direct ¶ 141.) The conveyor system is bolted to steel members that are suspended from the roof trusses. (JX-1266; Goesling Direct ¶ 141.)

f) Representative Asset No. 18

The General Assembly Conveyor: Vertical Adjusting Carrier, which is located at the Lansing Facilities, is a set of eight-seven vertical adjusting carriers that travel along an overhead rail, which is part of a separate eFAST ledger line. The carriers transport vehicle bodies through the chassis assembly line, which is where the suspension and vehicle powertrains are attached to the vehicle bodies. The asset was put into service in November 2006 and had an installed cost of $4,141,896. (JPTO ¶ 91.)

The vertical adjusting carriers themselves are not permanently affixed to the building. (Goesling Direct ¶ 118.) Instead, the carriers' wheels ride along the top of the rail and are connected to it by gravity. (Trial Tr. (Stevens) at 165:18–167:23; Goesling Direct ¶ 115.) The rail for the Vertical Adjusting Carriers is attached to white steel beams within the facility that is in turn bolted to the building. (Trial Tr. (Stevens) at 165:18–167:23; Goesling Direct ¶ 118.)

The white steel is connected to the roof structure with bolts. (Trial Tr. (Stevens) at 165:18–167:23.)

Although very heavy and large, the carriers could feasibly be removed by detaching a rail section and taking the carrier off the rail. (Goesling Direct ¶ 119.)

Defendants assert that the white steel should be included as part of the eighty-seven vertical adjusting carriers, (Trial Tr. (Stevens) at 165:18–167:23), but there is no indication in the eFAST description that the asset includes anything other than the carriers. (PX-219.)

g) Representative Asset No. 20

The General Assembly Conveyor Sub-ASM Receiving – Wheel & Tire Delivery, which is located at the Lansing Facilities, is a conveyor system that transports wheel and tire assemblies from the tire and wheel assembly system to the final assembly line. The asset was put into service in November 2006 and had an installed cost of $1,150,919. (JPTO ¶ 93.)

Asset No. 20 consists of several types of conveyors, a mezzanine "catwalk" system, and a control cabinet. (Goesling Direct ¶ 123.) The conveyance system, which is approximately 400 linear feet in length, is made up of an inclined belt section that rises from the floor level to a mezzanine 12.5 feet overhead, a powered roller conveyor at the mezzanine level, and two spiral conveyors/silos, which bring the wheels back down to floor level and act as a short-term storage buffer. (*See, e.g.*, JX-1290; JX-1287; Goesling Direct ¶ 123.)

Asset No. 20 is largely attached to the realty by bolts. (JX-1288; Goesling Direct ¶ 126; Trial Tr. (Stevens) at 162:19–163:5.) The floor-level conveyance system is attached to the floor in various places with lag bolts. (JX-1286; Goesling Direct ¶ 126.) The spiral portion of the conveyor—that travels from the second level to the first level—is also attached to the floor with lag bolts. (JX-1291; Goesling Direct ¶ 126.)

h) Representative Asset No. 21

The General Assembly Conveyor (Skillet-Final-Leg 1), which is located at the Lansing Facilities, is a skillet[10] conveyor system that transports nearly complete vehicles on skillets through the final assembly process. The asset was put into service in November 2006 and had an installed cost of $1,484,980. (JPTO ¶ 94.)

Asset No. 21 consists of approximately 500 linear feet of conveyor track, 18 freestanding drive rollers used to propel the skillets along the assembly line, and a control panel. (Goesling Direct ¶ 129.) The track consists of two separate, floor mounted rails spaced about five feet apart that are assembled from twenty-foot sections bolted to the ground, and bolted together and supported by leveling feet at two foot intervals. (JX-1297; Goesling Direct ¶¶ 130, 134.)

Asset No. 21 is largely attached to the realty by bolts, and is installed in a pit that is part of a separate Representative Asset (the Pits and Trenches, Representative Asset No. 2). (JX-1297; Goesling Direct ¶¶ 130–31, 134.)

i) Representative Asset No. 26

The Core Delivery Conveyor System CB116 & 122, which is located at GM Powertrain Defiance, is a conveyor system and associated support platform that transports engine core sub-assemblies as part of the iron casting process at Powertrain Defiance. The asset was put into service in November 2007 and had an installed cost of $280,816. (JPTO ¶ 99.)

Asset No. 26 consists of six conveyor sections, a mezzanine and an HMI control panel, and is positioned overhead in the factory in order "to avoid blocking the aisle and work area below . . . ." (Trial Tr. (Thomas) at 858:24–859:13.)

[10] Asset No. 21 uses a specialized vehicle assembly platform called a 'skillet,' which is large enough to hold a vehicle body and have excess space for workers to stand on and perform work on the vehicle as it moves along the assembly line. (Goesling Direct ¶ 129.)

Asset No. 26's function is to "transport molded core assemblies from the CB 116 robotic assembly cell located on the ground level, up an incline and down again to the CB 122 robot dip cell located on ground level. (Goesling Direct ¶ 317.)

Asset No. 26 is largely attached to the realty by bolts; Plaintiff's expert Goesling testified that the conveyor system is modular, its pieces connected with "non-permanent bolts," and that the ground portion of the conveyor system is "supported by floor posts bolted to the ground," while the overhead portions "are bolted or spot welded to the mezzanine." (*Id.* ¶ 322.) Defense expert Thomas also testified to the conveyor's attachment to the realty, stating that the conveyor's support platform is "bolted to the vertical support columns in the building," "bolted to the horizontal steel beams that support the floor of the sand deck," and "suspended over the aisle way with structural angle iron hangers [which are] bolted to the building trusses." (Thomas Direct, Ex. A at 34.)

However, Goesling and Thomas disagree on the permanence of the bolts connecting the conveyors to the realty. Goesling characterizes the bolts attaching the conveyor to the realty as "non-permanent." (Goesling Direct ¶ 322.) In contrast, Thomas testified that

> Mr. Goesling […] oversimplifies the process that would be required to remove [Asset 26] […] Mr Goesling overlooks the fact that the platform and support steel would also need to be extricated. Removal of the conveyor would involve much more than "simply" detaching conveyance sections from the "mezzanine."

(Thomas Direct ¶ 43.) Thomas also notes that removing Asset 26 would entail "unbolting hundreds of bolts; cutting/removal of welding [. . . and the] removal of four guard posts, each embedded in concrete . . . ." (*Id.*)

3. Robots

a) Representative Asset No. 39

The CB 91 Robot is a robot at the Defiance Foundry that unloads engine cores from the CB 91 core making machine. The asset delivers each core to several work stations before delivering a complete core sub-assembly to a conveyor for further processing. The sub-assemblies are used later in the iron casting process at Powertrain Defiance. The asset was put into service in March 2005. (JPTO ¶ 112.)

The CB 91 Robot is mounted on a steel plate that is, in turn, attached with eight lag bolts to the floor. (Goesling Direct ¶ 346; *see also* Trial Tr. (Thomas) at 834:19–835:14, 838:18–24.) There are also two utilities connections to the CB 91 Robot: Electric and compressed air. (Trial Tr. (Thomas) at 835:18–25; *see also* JX-1579.) GM used a quick connect fitting[11] to connect the CB 91 Robot and the controller. (Trial Tr. (Thomas) at 837:3–6.)

The CB 91 Robot is itself made up of a six-axis robot and a standalone robot control cabinet. (Goesling Direct ¶ 342.) The robot controller rests directly on the building floor. (*Id.* ¶ 346; Trial Tr. (Thomas) 836:23–837:2; JX-1584.) The robot controller was designed with forklift carrying tubes and the cabinet top has four side-mounted eye hooks to assist with moving the controller. (Goesling Direct ¶ 347; *see also* JX-1584.)

Removal of the robot, without the baseplate, would take approximately two to two and a half hours. (Trial Tr. (Thomas) at 837:7–838:17.) Removing the baseplate would take roughly an additional thirty-five minutes. (*Id.* at 838:18–839:14.) Healing and reconcreting the floor would then take approximately three hours. (*Id.* at 839:15–25.) And to take the feed lines back to their source would take about six to eight hours. (*Id.* at 840:2–5.)

[11] A "quick connect fitting" is a utility outlet mechanism that provides multiple utilities through a single plug. (Trial Tr. (Stevens) at 90:10–92:10.)

This robot could be removed from the cell where it is located and reprogramed for use in another area of the foundry. (*Id.* at 842:25–843:4.) All robots are reprogrammable. (*Id.* at 843:14–16.) "And as long as the robot is operating within its specified range of movement, weight capability and specification, there's really no restrictions on where you could use and place" Representative Asset No. 39. (*Id.* at 843:17–22.)

b) Representative Asset No. 12

The Body Shop Robot LAZN-150R1, which is located at the Lansing Facilities, is a framing robot that is installed on an overhead structure. The robot is one of a number of robots in the outer body framing station in the body shop that applies spot welds to join together body panels into a complete vehicle body outer frame.

The Body Shop Robot LAZN-150R1 consists of a single Fanuc model R-2000iA/200R six-axis robot, a six-inch high riser, and a mounting plate. (Goesling Direct ¶ 146.) The robot is bolted to the riser plate, and the riser is in turn bolted to the mounting plate with eight bolts. (*Id.* ¶ 147.) The Fanuc RJ3iB robot controller is mounted on casters and is also equipped with forklift carrying tubes to aid in transporting the asset. (*Id.* ¶ 148.)

Incoming electrical power is supplied from an overhead bus duct via loose flexible cabling to a quick connect fitting at the cabinet. (*Id.*) The controller then feeds power and data to the robot by loose cabling contained in reconfigurable metal cable trays. (*Id.*) The data and control wiring also utilizes quick connect fittings for easy separation. (*Id.*)

The overhead mounting position makes removal of Representative Asset No. 12 more difficult than a robot mounted on the floor, though the bolts can be removed and the robot lifted out of position without damage to either the asset or the building. (*Id.* ¶ 152.)

The asset was put into service in November 2006 and had an installed cost of $27,526. GM classified Representative Asset No. 12 as personal property for tax classification purposes. (*Id.* ¶ 150; *see also* PX-231.)

c) Representative Asset No. 22

The Fanuc M-710IB/70T Robot (the "Gantry"), which is located at Warren Transmission, is a Fanuc robot mounted on a gantry rail. The asset is used to move gears within a subassembly process before the finished gears are sent to the transmission assembly line. Defendants believe that the associated safety fencing and interlocks were included in GM's fixed asset ledger as part of this asset; Plaintiff believes that the safety fencing was not included in GM's fixed asset ledger as part of this asset. The asset was put into service in July 2007 and had an installed cost of $270,101. (JPTO ¶ 95.)

The Gantry is a modular metal structure supported by three freestanding steel tube columns estimated to be ten feet tall, each with a floor-mounting plate that is attached to the floor with lag bolts. (Goesling Direct ¶ 280.) The three columns support the approximately fifty-foot-long horizontal Gantry rail using right angle brackets and various Allen bolts. (*Id.; see also* JX-1309.) The Gantry installation does not require any bracing or support from the building structure. (Goesling Direct ¶ 280.)

The rectangular baseplate of the robot arm is attached to an underslung carriage with Allen bolts, and the carriage is moved along the rail with a drive system. (*Id.*; *see also* JX-1314.) Electrical wiring is fed to the robot through loose wiring contained in an open cable tray on top of the Gantry rail. (Goesling Direct ¶ 280; *see also* JX-1308.)

The robot controller is mounted on casters. (Goesling Direct ¶ 280; *see also* JX-1307; Trial Tr. (Deeds) at 618:19–619:5.) The power and data feeds to and from the controller utilize loose cabling and quick connect fittings. (Goesling Direct ¶ 280.)

4. Assets Located at the Warren Transmission Plant

a) Representative Asset No. 1

The OP-150 Select, Check Place Shims Auto Station ("OP-150"), which is located at Warren Transmission, is a shim select and placement machine. The asset measures transmission housings to ensure they conform to design tolerances and selects and installs a thin piece of metal, or "shim," with the specific thickness needed to adjust for any detected intolerance. The asset was put into service in June 2006 and had an installed cost of $467,741. (JPTO ¶ 74.) The OP-150 Select weighs 9,000 pounds, is 10 feet tall and occupies some 200 square feet of floor space. It is designed specifically to work with the family of transmissions being made at Warren. (Deeds Direct ¶ 162.)

The OP-150 Select consists of an automatic placement station, a shim dispenser with approximately twenty-six storage magazines, and a control panel with a human machine interface. (Goesling Direct ¶ 266.) A conveyor system (which is a separately capitalized asset) is used to carry the pallets with transmission cases through the Shim Select and Placement Machine. (*Id.*)

The components of the OP-150 Select are mounted on height adjustable base plates, which are attached to the building floor with lag bolts. (Goesling Direct ¶ 270; *see also* JX-1005.) The machine is also attached to the pallet conveyor with Allen bolts. (Goesling Direct ¶ 270; *see also* JX-1004.)

Loose wiring and quick connect fittings are used to supply power and data from the control panel to the Shim Select and Placement Machine. (Goesling Direct ¶ 270; *see also* JX-1004.)

b) Representative Asset No. 14

The Leak Test Base Machine, which is located at Warren Transmission, tests for fluid leaks in transmission housings after they have been manufactured and before they are sent to the transmission assembly line. This asset was put in service in July 2007 and had an installed cost of $1,254,458. (JPTO ¶ 87.)

The Leak Test Machine is 30 feet by 25 feet by 12 feet, and weighs roughly 30,000 pounds. (Deeds Direct, Ex. A at 22.) It includes: (i) three individual test stands, each of which has a standalone fluid pump and delivery station; (ii) a pallet transfer conveyor, which runs through the three test stands; and (iii) three control cabinets (one for each test stand). (Goesling Direct ¶ 272.) The Leak Test Machine was customized to its place in the specific layout at Warren so that the conveyors on the Leak Test Machine would be aligned precisely with the height, width, and location of the conveyors feeding into and leading out of it. (Deeds Direct ¶ 72.) It is also attached to a high-pressure, steel-pipe plumbing connection to the plant's compressed air distribution system, to the plant's high-voltage (440-volt) power supply and to the deburring machine and pack out conveyor, which connects the Leak Test Machine to an unload robot. (Deeds Direct, Ex. A at 22.)

It is surrounded by the other machines in its module: a load robot, twelve CNC machines, a power zone conveyor, a deburring machine, and an unload robot. (Deeds Direct ¶ 76; Deeds Direct, Ex. A at 81.)

c) Representative Asset No. 23

The Aluminum Machining System, which is located at Warren Transmission, is an aluminum machining system that is connected to Computer Numerically Controlled, or "CNC," machines. The asset includes the piping that circulates clean, temperature controlled coolant to the CNC machines and also removes metal chips generated during the CNC milling process from

the coolant so the coolant can be recirculated to the CNC machining centers. The System is an 800,000-pound, 75-foot-long, 60-foot-wide, 25-foot-tall machine that is critical to the 6-speed line. (Deeds Direct ¶ 82; JX-1330; JX-1331; JX-1345.) The asset was put into service in June 2006 and had an installed cost of $1,946,878. (Deeds Direct ¶ 87.)

The components of the Aluminum Machining System include two filtration units, a polish filter unit, a heat exchanger, a chip conveying system, piping and a control panel. (Goesling Direct ¶ 283.)

Plaintiff agrees with Defendants that the pits, trenches, and the piping that are components of Representative Asset No. 23 are fixtures. These portions of the asset were installed permanently. (*Id.* ¶ 291.) The trenches, which are integrated into the floor slab, would be destroyed as part of removal and would leave extensive unlined holes, constituting damage to the building. (*Id.*) The long runs of large diameter piping also would likely be destroyed during removal. (*Id.*)

The two main filtration units, made of welded steel and measuring approximately fifteen feet long, sixty feet wide and twelve feet tall, are essentially large steel tanks, with travelling filter belts and chip conveying equipment installed inside. (*Id.* ¶ 284.) The main filtration units are attached to the building floor with angle iron clips and lag bolts in several locations around the perimeter of the units. (*Id.*; *see also* JX-1321.)

The polish filtration unit is essentially a smaller version of the two main filtration units, measuring approximately six feet by thirty feet by ten feet. (JX-1333; Goesling Direct. ¶ 285.)

Drainage trenches have been installed in the floor surrounding the filtration units to collect water and coolant spillage. (Goesling Direct ¶ 284; *see also* JX-1333.)

The heat exchanger is mounted on a skid, which rests on the building floor and has two openings that allow the skid to be easily lifted with a forklift truck. (JX-1325; JX-1326 (visible openings for forklift truck); Goesling Direct ¶ 286.)

Similar to the main filtration units, the chip conveyor is constructed out of welded steel and is attached to the building floor with lag bolts. (JX-1327; Goesling Direct ¶ 286.)

The control panel is resting on the building floor, and is not attached by bolts or any other method. (JX-1323; Goesling Direct ¶ 287.)

Incoming electrical power is supplied to the control panel from an overhead bus duct through metal conduit; the controller then feeds power and data to the components of the Aluminum Machining System by loose cabling in enclosed cable trays and, in certain places, utilizes quick disconnect fittings. (*Id.*)

d) Representative Asset No. 24

The LFS220 Base Shaping Machine-Op 20 Transfer Drive Gear ("Base Shaping Maching"), which is located at Warren Transmission, is a Base Shaping Machine, which is a type of Computer Numerically Controlled, or "CNC," machine that is part of the process of machining or cutting steel blanks into transfer gears that are used in GM transmissions. The main components of the asset include the gear shaping machine, a control panel, a hydraulic power pack, and an entry/exit conveyor section. (JX-1350; Goesling Direct ¶ 292.) The asset was manufactured in 2005, put into service in December 2007, and had an installed cost of $1,050,540. (JPTO ¶ 97.)

The Base Shaping Machine weighs 30,000 pounds and is 15 feet long, 12 feet wide and 10 feet tall. (Deeds Direct ¶ 108; JX1352.) The Base Shaping Machine is mounted on a number of vibration isolation pads that rest in a drip pan that is sitting on the building floor without

further attachment. (JX-1354; JX-1349; Goesling Direct ¶ 295.) The connection between machine and pad serves to control vibrations. (Goesling Direct ¶ 295.)

The Base Shaping Machine is attached to the inlet and outlet conveyors that feed it, as well as to an electrical supply transformer and electrical control cabinets. All utilities that are provided to the Base Shaping Machine use bolted flange or threaded pipe connections. (JX-1355; JX-1347; Goesling Direct ¶ 296.)

The control panel rests directly on the floor slabs. (JX-1348; Goesling Direct ¶ 296.) Next to the control cabinet is a small transformer that is secured to the building floor by lag bolts. (JX-1351; Goesling Direct ¶ 297.)

Electrical power is supplied to the control cabinet from an overhead bus duct by wire in conduit; the control panel then feeds electrical power and data to the CNC Gear Shaper through loose wiring utilizing quick connect fittings. (JX-1351; Goesling Direct ¶ 296.)

Part loading and unloading conveyors, consisting of two ninety degree curves approximately five linear feet in length, are bolted to the Base Shaping Machine and the conveyor legs either rest on the building floor, or in some cases are secured to the floor by single lag bolts. (JX-1353; Goesling Direct ¶ 297.)

Finally, the hydraulic power pack, which pumps fluid to the Base Shaping Machine, has four leg pads that rest on the building floor and uses various quick connect data wiring for sensors and control. (Goesling Direct ¶ 297.) Hydraulic fluid is pumped to the CNC Gear Shaper through small diameter piping and attached using threaded compression fittings. (JX-1356; Goesling Direct ¶ 297.)

e) Representative Asset No. 25

The Liebherr Hobb Machine from St. Catharines, which is located at Warren Transmission, is a hobb machine manufactured by Liebherr. It is another type of Computer

Numerically Controlled, or "CNC," machine and is part of the process of machining or cutting steel blanks into transmission gears that are used in GM transmissions. The Liebherr Hobb weighs approximately 33,000 pounds and is 12 feet long, 15 feet wide and 10 feet tall. (Deeds Direct ¶ 144; JX-1380; JX-1385.) To keep the machine from moving when the horizontal forces of the cutting tools inside the Liebherr Hobb are applied to cut the gear blanks, the Liebherr Hobb is bolted to the floor. (Deeds Direct ¶ 144; Trial Tr. (Deeds) at 692:7–9.)

The asset was moved from GM's St. Catharines, Ontario facility to Warren Transmission in 2008. It had an installed cost of $1,192,377.[12] (JPTO ¶ 98.)

The Liebherr Hobb "consists of: (i) a standalone human-machine interface ("HMI") control cabinet; (ii) the gear hobbing machine; (iii) two hydraulic power packs; and (iv) an entry/exit conveyor section to load and unload parts." (JX-1368; JX-1373; JX-1381; Goesling Direct ¶ 309.)

The exit conveyor belt is separate from the main conveyor belt and is connected to the main conveyor with nut and bolt fasteners. (Goesling Direct ¶ 313; JX-1383.) The exit conveyor frame is constructed of modular aluminum extrusions that allow for multiple configurations and various interchangeable parts. (Goesling Direct ¶ 313; JX-1375; JX-1376.) The exit conveyor is attached to the frame of the gear hobbing machine in four places (two on each side of the conveyor) for stability. (JX-1375; JX-1376; Goesling Direct ¶ 315.) Certain sections of the conveyor frame are stabilized by a bracket that is affixed to the building floor with a lag bolt. (JX-1382; JX-1383; Goesling Direct ¶ 315.)

[12] The asset was installed and used in Old GM's St. Catharines, Ontario facility from 2005 to late 2007. (Goesling Direct ¶ 312; Trial Tr. (Deeds) at 517:21–518:7.) Two years after GM purchased the asset for use at GM's St. Catharines facility, and well before the end of its useful life, the asset was transported and installed for use at Warren Transmission. (Trial Tr. (Deeds) at 513:23–514:23; Goesling Direct ¶ 312.)

Finally, the connections to the machinery for electrical power, data wiring and piping utilize methods such as loose cabling or flanged joints that are bolted together, allowing for easy disconnection between the machine and the piping or wiring. (*See* JX-1367; JX-1369; Goesling Direct ¶ 315.)

f) Representative Asset No. 36

The Helical Broaching Equipment, which is located at Warren Transmission, is a type of Computer Numerically Controlled, or "CNC," machine used to cut gear teeth on a steel gear blank for use in GM transmissions. It weighs approximately 90,000 pounds and is 18 feet long, 15 feet wide, and 20 feet tall. (Deeds Direct ¶ 123; Trial Tr (Deeds) 633:10–16.) Like the Base Shaping Machine (Representative Asset No. 24) and the Liebherr Hobb (Representative Asset No. 25), the Helical Broach is part of the gear-making processes in the 6-speed line. It is located in the one area of the Warren facility that provides sufficient roof clearance for its twenty-foot height. (Deeds Direct ¶ 123; Trial Tr. (Deeds) at 631:11–632:16.) The main components of the asset include a broaching machine, a standalone control and electrical cabinet, a chip conveyor and filtration system, a hydraulic powerpack, and a centralized lubrication system. (JX-1550; Goesling Direct ¶ 299.) The asset was put into service in June 2006 and had an installed cost of $1,472,023. (JPTO ¶ 109.)

The Helical Broach is mounted on four heavy duty isolation pads, which are bolted to the machine base and rest in a drip pan that is sitting on the building floor. (JX-1541; Goesling Direct ¶ 302; Trial Tr. (Deeds) at 629:4–631:10.) In addition to several attachment points, Representative Asset No. 36 is held in place by its enormous weight and size. (Trial Tr. (Deeds) at 630:21–631:7; Goesling Direct ¶ 305.) Three small, six foot high, self-supporting operator platforms are attached to the Helical Broach with bolts, and the platform legs simply rest on the building floor. (Goesling Direct ¶ 302.)

Helical Broaches have previously been installed in a pit, but advances in techniques and procedures now dictate that these types of assets be situated above ground. (Trial Tr. (Deeds) at 635:10–15; Goesling Direct ¶ 307.)

The Helical Broach is integrated with the conveyor that feeds it and with an electrical power transformer and electrical panels. (Trial Tr. (Deeds) at 630:21–631:7; Deeds Direct ¶ 124.) The Helical Broach is also integrated with the plant's centralized chilled water supply system and mist collection systems via hard steel piping that runs to the precise location of the Helical Broach. All utilities attached to the Helical Broach use connections (such as a bolted flange) that allow for disconnection or modification. (Goesling Direct ¶ 302.) The standalone control and electrical cabinet is secured to the building floor by lag bolts. (Trial Tr. (Deeds) at 630:21–631:7; Goesling Direct ¶ 303.) The control and electrical cabinet was designed and constructed with forklift carrying tubes and top-mounted eye-bolts to assist with movement of the machine. (JX-1545; Goesling Direct ¶ 303.) Next to the control cabinet is a small transformer that is secured to the building floor by lag bolts. (Goesling Direct ¶ 304; Trial Tr. (Deeds) at 630:21–631:7.) The hydraulic powerpack, which sits next to the Helical Broach, is mounted on vibration pads that simply rest on the building floor. (JX-1541; Goesling Direct. ¶ 304.)

A central lubrication pumping unit is attached to the side of the hydraulic powerpack reservoir, and connected to the broaching machine with flexible hose. (JX-1548; Goesling Direct ¶ 304.) Finally, a coolant filtration system with a chip conveyor is bolted to the side of the Helical Broach and runs on the building floor between the Helical Broach and the control cabinet. (JX-1547; Goesling Direct ¶ 304.)

5. Assets Located at the Defiance Foundry

a) Representative Asset No. 27

Emissions System #4 Cupola, which is located at GM Powertrain Defiance, is a gas cleaning system that heats the hot blast air injected into the No. 4 melting furnace at Powertrain Defiance (also known as a "cupola") and removes and controls particulates and toxic gases generated by the foundry melting. The asset replaced an earlier system that served a similar function, Representative Asset No. 38, the System Gas Cleaning No. 4 Cupola. The asset was put into service in November 2007 and had an installed cost of $9,811,712.

It has five significant components that collectively weigh over 400,000 pounds: a thermal oxidizer, a heat exchanger, a scrubber, a hot blast turbine and hundreds of feet of ductwork. (Thomas Direct ¶ 46 & Ex. A at 39; JX-1431; JX-1432; JX-1433; JX-1434; JX-1435.) GM designed and constructed two multi-story enclosures totaling 6,000 square feet to support these components. (Thomas Direct ¶ 46; Trial Tr. (Thomas) at 789:18–791:16; DX-1019.) Several of the components, such as the thermal oxidizer, heat exchanger and scrubber, span multiple levels; thus, GM engineered openings in the floor of the enclosures to accommodate them. (Thomas Direct ¶ 46 & Ex. A at 39.)

The thermal oxidizer is a large vertical vessel approximately 108 feet tall and 12 feet in diameter that extends through the roof of the melt shop building and also connects to the heat recuperator via a duct that is 45 feet long and 10 feet in diameter. (Goesling Direct ¶ 326; *see also* JX-1425; JX-1426.) The thermal oxidizer pulls and incinerates off-gas from the melting process. (Goesling Direct ¶ 326.) The heat recuperator is another large vessel, approximately fifty-three feet high and seven and a half feet in diameter that extends through the roof. (*Id.*; *see also* JX-1424; JX-1422.) The heat recuperator receives and cools hot exhaust from the thermal oxidizer while heating outside air used in the cupola melting process. (Goesling Direct ¶ 326.)

The hot blast turbine blower, which pulls air from the outside to send to the heat recuperator, is a contained metal turbine blower that is bolted to a raised cement platform. (*Id.*; *see also* JX-1420; JX-1421.)

The scrubber vessel, which removes fine particulate matter from the air received from the heat recuperator and releases the cleaned air through stacks, is a large vessel approximately fifty-seven feet tall and eighteen feet in diameter that extends through multiple floors of the building. (Goesling Direct ¶ 326; *see also* JX-1435; JX-1423.)

Representative Asset No. 27 is necessary only to the iron casting process and thus is not particularly useful in connection with a different foundry process, such as making aluminum castings. (Goesling Direct ¶ 329.)

b) Representative Asset No. 28

100 Ton Vertical Channel Holding Furnace, which is located at GM Powertrain Defiance, is a furnace that holds molten iron at a stable temperature until the mold line at Powertrain Defiance requires the molten iron. It was approximately 12 feet in diameter and 16 feet high and held up to 100 tons of molten iron at a stable, molten temperature (2,500 degrees Fahrenheit for iron). The asset was put into service in December 2007 and had an installed cost of $4,174,288. The asset was removed in 2011.

The 100 Ton Vertical Channel Holding Furnace was comprised primarily of the holding furnace, a pit with foundation and equipment mounting pedestals, a control panel, and associated utilities. (Goesling Direct ¶ 332.)

The 100 Ton Vertical Channel Holding Furnace was installed in 2007 as part of the project of moving the malleable iron business to Defiance from a foundry in Saginaw, Michigan, which was shut down in 2007. (Trial Tr. (Thomas) at 822:14–23; *see also* Goesling Direct ¶ 336.)

There were other assets, in addition to Representative Asset No. 28, that were installed at Defiance as part of the malleable iron business, including two induction melting furnaces and a charging system. (Trial Tr. (Thomas) at 825:14–24.) The total expense of moving the malleable iron business to Defiance was approximately $35 million. (*Id.* at 774:9–13.)

When the malleable iron line was installed at Defiance in 2007, GM knew that there was a finite life of the malleable business. (*Id.* at 825:25–826:5.) The malleable iron operations supplied parts for 4-speed transmissions (*id.* at 773:3–17), and when Representative Asset No. 28 was installed, GM expected that the life of 4-speed transmissions would be only three to five years. (*Id.* at 826:11–15; *see also* Goesling Direct ¶ 336.)

Thus, GM knew at the time the holding furnace was installed that the malleable iron product would only be needed for about three to four more years. (Trial Tr. (Thomas) at 826:16-20.)

Mr. Thomas, Defendants' expert who testified about this asset, assigned a 25-year normal useful life for the 100 Ton Vertical Channel Holding Furnace. (*Id.* at 826:21-24.)

As reflected in the June 2009 eFAST, New GM assigned a three-year depreciable life to Representative Asset No. 28. (*Id.* at 827:25–828:4; Goesling Direct ¶ 336; PX-0219 (Asset ID: 1000991251).) In contrast, GM assigned a depreciable life of sixteen years to two similar Ajax Holdings Furnaces at Defiance. (PX-0219 (Asset IDs: 100025421 (Ajax Induction Holding Furnace) & NJL6082100 (130 Ton Ajax Holding Furnace).)

Mr. Niszczak confirmed that GM depreciates its fixed assets over the item's useful life, as defined in GM's accounting policy. (Niszczak Dep. Tr. at 34:12–35:6.) The years of depreciation should be equal to the useful life of the actual asset. (*Id*. at 35:4–6; 44:4–11.)

The comparatively shorter depreciable life shows that GM knew and acknowledged in its own accounting records that within a few years after installation, the equipment would no longer be needed. (Goesling Direct ¶ 336.) Consistent with GM's expectations, the malleable iron line, in fact, ceased production about three years after its installation. (Trial Tr. (Thomas) at 828:19–22; *see also* Goesling Direct ¶ 336.) The holding furnace was ultimately removed from Defiance in 2010 or 2011 because GM needed the floor space to expand its production of aluminum castings (Trial Tr. (Thomas) at 778:4–21; 829:3–6), and different assets are used to make aluminum castings as compared to malleable iron. (*Id.* at 829:3–6.)

Despite the significant cost of Representative Asset No. 28 (approximately $4.2 million) and its large size and relatively permanent method of attachment, GM installed the 100 Ton Vertical Channel Holding Furnace expecting to remove it after only a few years, well before the end of its useful life. (Goesling Direct ¶ 337; Trial Tr. (Thomas) at 826: 21–24 (Mr. Thomas, Defendants' expert, stating that he estimated the normal useful life of Representative Asset No. 28 to be twenty-five years).) Representative Asset No. 28 was specific to GM's malleable iron line, and once that line was discontinued, the holding furnace was idled and removed a short time later. (Goesling Direct ¶ 335.) GM attempted to resell the holding furnace, but could not find a buyer, so it was ultimately scrapped. (Trial Tr. (Thomas) at 829:7–18.)

c) Representative Asset No. 38

System Gas Cleaning No. 4 Cupola, which is located at GM Powertrain Defiance, is a gas cleaning system that cleaned high-temperature exhaust gases from a cupola at Powertrain Defiance. It weighs fifty tons, and is a forty foot tall, twenty foot wide, ten foot deep, multi-story steel unit designed to clean high temperature exhaust gases from the No. 4 Cupola at Plant 1. (Thomas Direct ¶ 79.) The asset was put into service in May 1976 and had an installed cost of $1,173,272. The asset was idled in 2007.

Two significant portions of Representative Asset No. 38 have been removed, and the remaining portions of the asset remain abandoned in place. (Trial Tr. (Thomas) at 784:6–15; Goesling Direct ¶ 338.) The portions of Representative Asset No. 38 that remain in place include the venturi scrubber and separator, a supporting metal superstructure, a gas compressor, and a small portion of ductwork. (Goesling Direct ¶ 338.)

The venturi scrubber and separator vessels are more than fifty feet tall and are supported by a steel structure that is secured to the building with lag bolts. (*Id.*) An elaborate stair and railing system surrounds both units and is attached to the two vessels and steel structure with welds and bolts. (*Id.*) The size of the remaining portions of Representative Asset No. 38 makes removal very difficult and expensive and would cause serious damage to the building and destroy much of the remaining asset. (*Id.*)

GM classified Representative Asset No. 38 as personal property for tax classification purposes. (*Id.* ¶ 340; *see also* PX-0231.)

d) Representative Asset No. 40

The P&H 7 1/2 Ton Charger Crane 6E Cupola ("Charger Crane"), which is located at GM Powertrain Defiance, consists of a charging bridge crane, suspended above the ground, that moves along rails (which were part of a separate eFAST ledger line) within a raw material bay at Powertrain Defiance. The Charger Crane itself weighs 70 tons, spans approximately 100 feet, and is 20 feet wide and 10 feet high, and is suspended 55 feet above the ground by two runway rails, hovering over incoming railcars in a "charge yard." (Thomas Direct ¶ 112 & Ex. A at 13; JX-1602.) The Charger Crane travels along the runway rails and lowers a 4-foot-diameter magnet to lift up to 15,000 pounds of scrap metal (the foundry's "raw materials") from those railcars. (Thomas Direct ¶ 111; JX-1609 (video of asset); JX-1725.) The Charger Crane then moves across the yard and delivers the scrap metal to a feeder / conveyor system that transports

the metal to one of the foundry's large melting furnaces (known as a "cupola"). (Thomas Direct ¶ 111; JX-1609.) The asset was put into service in July 1997 and had an installed cost of $639,653. (Thomas Direct, Ex. A at 13.)

The Charger Crane is the primary scrap metal delivery mechanism for the 6E cupola, which melts iron. (Trial Tr. (Thomas) at 863:13–19.) As part of the iron casting process, Representative Asset No. 40 picks up raw scrap metal from railcars with a magnet and brings the metal to one of the charging feeders for Defiance's cupolas. (JPTO ¶ 113.) It is primarily a double girder bridge that spans approximately 100 feet between the rails, a top-riding trolley with wire rope hoist, and a control cab. (Goesling Direct ¶ 351.)

The Charger Crane is not capable of delivering non-ferrous materials in the manner that it delivers iron. (Trial Tr. (Thomas) at 864:5–14.) It is a magnet crane, and its magnet cannot pick up aluminum materials because aluminum materials are delivered by truck to Defiance—not railcar—and are unloaded at a dock, which is a different area than where iron materials are unloaded and then moved by this crane. (*Id*; *see also id.* at 758:23–759:13.)

The asset includes only the P&H 7 ½ Ton Charger Crane 6E Cupola – the rails on which the crane travels and the magnet are separately capitalized assets. (Goesling Direct ¶ 350.)

Prior to the installation of Representative Asset No. 40, there was a predecessor crane that ran along the same rails. (Trial Tr. (Thomas) at 861:4–10.) GM removed the predecessor crane and installed the P&H 7 ½ Ton Charger Crane 6E Cupola in a sixteen-day period. (*Id.* at 861:16–862:7.) The P&H 7 ½ Ton Charger Crane 6E Cupola is assembled with nuts and bolts. (*Id.* at 859:24–860:2.)

6. Assets Located in the Paint Shop

a) Representative Asset No. 5

The Paint Circulation Electrical System, which is located at the Lansing Facilities, is a paint mix and circulation electrical system that consists of electrical distribution and control cabinets that support the paint mixing and circulation equipment for the paint shop. The asset is bolted to a custom four-inch raised concrete foundation that allows the Paint Circulation Electrical System to sit above the floor, protected from any spill or flood. (Topping Direct ¶ 63; Trial Tr. (Topping) at 913:5–18.) The asset was put into service in November 2006[13] and has an installed cost of $1,899,672.

As the Avoidance Trust concedes, removal of the asset would, as a functional matter, stop all paint application operations at LDT. (Topping Direct ¶ 68; Trial Tr. (Goesling) at 3255:23–3256:3.) Representative Asset No. 5 provides electrical power for paint process equipment. (Goesling Direct ¶ 176.) The asset includes two motor control center ("MCC") cabinets and two control cabinets. (*Id.*) Both MCC cabinets are resting on a four-inch raised concrete pad without further methods of attachment. (*Id.* ¶ 180; *see also* JX-1055.)

Incoming power is fed by overhead wire through conduit and conduit supports are bolted to the top of the cabinets. (Goesling Direct ¶ 180; *see also* JX-1059.) The two control cabinets are similar in construction to the MCC cabinets but are much smaller in size and secured to the concrete pad by several lag bolts. (Goesling Direct ¶ 180; *see also* JX-1065.) It is also connected to thousands of feet of electrical conduit that GM embedded in the concrete floor.

[13] When purchasing this asset, GM specified to the manufacturer which off-the-shelf components were needed, such as the appropriately sized variable-frequency drive or motor starter, and the manufacturer assembled the requested components and sold the asset to GM. (Trial Tr. (Goesling) at 3256:17–25; 3257:12–23.)

Moreover, the Paint Circulation Electrical System is connected to hard conduit that carries power from the Paint Circulation Electrical System to the paint mix room. (Topping Direct ¶¶ 64, 66 & Ex. A at 30; Trial Tr. (Topping) at 909:25–910:22.)

b) Representative Asset No. 7

Paint Top Coat Automation Software, which is located at the Lansing Facilities, is software that assists in coordinating the operation of the primer and top coat/clear coat conveyors and paint process equipment, such as Representative Asset No. 9 (the TC2 CC Bell Zone). The asset was put into service in November 2006 and had an installed cost of $200,000.

Users access the Top-Coat Software on nine separate monitors located on terminals in the control room adjacent to the top-coat spray booth (a conceded fixture). (Topping Direct ¶¶ 78, 86; *see also* Trial Tr. (Topping) at 924:13–16.) While a user can control certain spray parameters (air pressures, bell speeds, voltages, fluid deliveries) with the Paint Top Coat Automation Software, the software does not operate the spray equipment. Each piece of spray equipment has its own software loaded onto it. (Trial Tr. (Topping) at 932:15–934:23.) Rather, Representative Asset No. 7 allows for access to data to monitor, but not to operate, the paint assets. (*Id.* at 932:15–934:13.) And if the Paint Top Coat Automation Software were to malfunction, the spray equipment would continue to run. (*Id.* at 952:12–17; 954:5–14.)

The Paint Top Coat Automation Software does not have a physical presence—it is an intangible asset that "exists" within a computer data storage device and can be transferred to any other compatible computer device without damage to the realty or software. (Goesling Direct ¶¶ 186, 189.)

Mr. Topping concedes that the Paint Top Coat Automation Software could be loaded onto another computer and perform the same function, and also concedes that the computer on

which the software could be loaded would not be a fixture. (Trial Tr. (Topping) at 975:16–977:21.)

GM classified Representative Asset No. 7 as personal property for purposes of tax classification. (Goesling Direct ¶ 188; *see also* PX-0231.)

c) Representative Asset No. 8

The General Assembly End of Line Paint Spot Reprocess System Paint Mix Room ("GA Paint Mix Room"), which is actually located at the Lansing Facilities assembly area but relates to the painting process, is a self-contained fireproof paint mixing room. The GA Paint Mix Room is approximately 9 feet long, 8 feet wide, and 12 feet tall, weighs roughly 2,000 pounds, and is bolted to the floor. (Topping Direct ¶ 97; Trial Tr. (Topping) at 998:19–21.) It is used as a vented enclosure to mix small batches of paint for minor paint repairs to vehicle bodies at the end of the final assembly line. The asset was put into service in November 2006 and had an installed cost of $815,150.

The GA Paint Mix Room is constructed of galvanized steel panels fastened together with nuts and bolts and attached to the floor with lag bolts. (Goesling Direct ¶ 105; *see also* JX-1089.) This paint mix room is standard and was purchased by GM from a catalogue. (Trial Tr. (Topping) at 999:9–12.) The GA Paint Mix Room is a smaller, more portable paint mix room compared to the more permanent paint mix rooms located in the paint shop, which are designed with walls and ventilation systems integrated into the building structure that would likely be considered fixtures. (Goesling Direct ¶ 106.)

There are various utilities connected to the Paint Mix Room (compressed air, sprinkler water for fire suppression, ventilation ducting, and electrical wiring), all of which are connected in a way that allows for easy detachment. (*Id.* ¶ 105; *see also* JX-1088.)

If the GA Paint Mix Room were removed, paint would have to be mixed in the paint shop. (Trial Tr. (Topping) at 947:10–16.) GM has previously relocated one similar paint mix room showing that movement is possible without damage and that this type of asset can be redeployed. (*See* PX-0022C at Asset #8-0001; Goesling Direct ¶ 107.) GM could likely remove Representative Asset No. 8 over the course of a weekend. (Trial Tr. (Topping) at 1000:6–9.)

d) Representative Asset No. 9

The Top-Coat Bells system, which is located at the Lansing Facilities, is a set of paint applicator machines or "Bells" mounted overhead or installed through the walls of one of the spray booths in the paint shop. Specifically, there are a set of twelve paint applicators (or "Bells") that form a "bell zone" within the top-coat spray booth. (Topping Direct ¶ 75.) There are eight vertical Bells and four horizontal overhead Bells, all of which are part of the walls of the top-coat spray booth. (*Id.*) Each Bell cabinet has a rigid steel frame that is bolted to the floor and engineered into the booth structure in a way that creates a hermetic seal. (*Id.*; Trial Tr. (Topping) at 923:22–924:4.) This air-tight seal is critical to the painting process. (Topping Direct ¶ 75; Trial Tr (Topping) at 924:5–12.) Controls on the back of the Top-Coat Bells can be accessed without entering the booth. (Topping Direct ¶ 75; Trial Tr. (Topping) at 923:6–21.)

A conveyor delivers vehicle bodies to the top-coat spray booth, where a clear coat of paint is applied by the Top-Coat Bells. (Topping Direct ¶ 76.) The process is monitored and coordinated by the Top-Coat Software (discussed below). (*Id.*) After this process is complete, the vehicle bodies travel on a conveyor from the top-coat spray booth to a paint oven, where the paint applied by the Top-Coat Bells is dried and cured. (*Id.*)

Incoming power, data wiring, and compressed air are fed to the Paint TC2 CC Bell Zone from a mixture of overhead cable trays, conduit, and pipe. (Goesling Direct ¶ 190; *see also* JX-

1082.) The data and control wiring is equipped with quick connect fittings for easy separation. (Goesling Direct ¶ 190.)

The components have been attached to the building in a manner that allows for the equipment to be upgraded as paint application technology advances. (*Id.* ¶ 194.)

7. Miscellaneous Assets Located at Lansing Delta Township

a) Representative Asset No. 15

The Soap, Mount and Inflate System, which is located at Lansing Delta Township Assembly, is a tire and wheel assembly system that assembles tires and wheels into finished wheel and tire assemblies by applying soap to lubricate the tires and wheels, mounting the tires to the wheels, and inflating the tires. Representative Asset No. 15 was put into service in November 2006 and had an installed cost of $1,897,124. (JPTO ¶ 88.) The Soap, Mount & Inflate System, which weighs approximately 40,000 pounds, is 90 feet long, takes up over 1,000 square feet of floor space, and is bolted to LDT's concrete foundation and to white steel in thousands of places. (Stevens Direct ¶ 232; *see also* JX-1224, JX-1215.)

The various stations that comprise Representative Asset No. 15 are attached to the floor with lag bolts: the mounting station (JX-1211); the tire inflation station (JX-1207; JX-1208); and the soaping station (JX-1214; JX-1213). (Goesling Direct ¶ 111.)

Representative Asset No. 15 also contains a conveyor system, which moves the wheels between each station. (*Id.* ¶ 108; *see also* JX-1216.) The conveyor system has been assembled from two to four-foot-long sections that are connected to each other, and to the various stations, with Allen bolts. (Goesling Direct ¶ 111; *see also* JX-1210.) The reason the conveyor system is so long is because GM made a late decision to in-source the tire and wheel assembly process in Lansing Delta Township Assembly and the equipment was then installed a significant distance from the final assembly line. (Trial Tr. (Stevens) at 160:24–161:16.) Similar to the stations, the

conveyor system mounts are then attached to the floor with lag bolts. (Goesling Direct ¶ 111; *see also* JX-1209.)

The System fits within a broader process in which tires and wheels are delivered by conveyors to the Soap, Mount & Inflate System; the wheel/tire assembly then moves seamlessly by conveyor to an adjoining machine that tests for leaks, to another adjoining machine that balances the assembly, and applies wheel weights as necessary, before the completed assembly is transported by a 350-foot overhead conveyor system (Asset 20) to the Final Skillet Conveyor on the main assembly line (Asset 21). (Stevens Direct ¶¶ 235, 243.)

The System requires continuous connections to high voltage electricity, compressed air, clean water, and waste water extraction. (*Id.*, Ex. A at 66.) These utilities are routed throughout the plant specifically to meet the needs of this asset. (*See, e.g.*, Trial Tr. (Goesling) at 3319:20–23 (agreement by Mr. Goesling that compressed air came from CUC, "a quarter mile away").)

a) Representative Asset No. 19

The Body Shop Coordinate Measuring Machine Full Body Machine ("CMM"), which is located at the Lansing Facilities, was a Full Body Coordinate Measuring Machine, or a CMM. The machine was used to take precise measurements of auto bodies manufactured in the body shop for quality purposes. The asset was put into service in November 2006 and had an installed cost of $354,000. It was removed in 2015. The other Full Body CMM installed in the same room is similar in size and installation to Representative Asset No. 19.

A second, similar coordinate measuring machine still remains at the plant and was inspected during the site inspections. (Goesling Direct ¶ 164.) New GM also provided photographs and a calibration report for the BS CMM. (*See* PX-0295 (Photos of assets, including Representative Asset No. 19); PX-0227 (Metris USA, Inc. LY90 asset documentation,

Lansing Michigan); JX-0030 (Picture of Representative Asset No. 19, BS CMM Full Body Machine - LY90); *see also* Goesling Direct ¶ 164.)

The CMM was mounted in a concrete-lined pit (which was a separately-capitalized asset) with the surface plate flush with the building floor. (Goesling Direct ¶ 165.) According to New GM personnel, the pit was demolished and filled in so that all floor space is currently level with the surrounding building floor. (*Id.*) Except for the new concrete floor, there was no evidence of damage due to removal of the CMM. (*Id.*; *see also* JX-1284.) Although the pit was left behind when the asset was removed, the pit was capitalized and treated as a separate asset by GM. (Goesling Direct ¶ 168.) No new asset was installed in the area from which Representative Asset No. 19 was removed. (Trial Tr. (Goesling) at 3132:7–11.)

GM also constructed a climate-controlled room with a separate air-conditioning system to house the asset to prevent metal expansion and contraction during testing. (Stevens Direct ¶ 220; DX-1006.)

GM assigned Representative Asset No. 19 a thirteen-year depreciable life when it was installed in November 2006, but the asset was removed halfway through its assigned useful life because technology developments had eliminated the need for the CMM. (Goesling Direct ¶ 168; *see also* Trial Tr. (Stevens) at 334:8–14.) Offline inspection equipment, such as Representative Asset No. 19, is being replaced by robots, similar to the OptiCell Measuring System (Representative Asset No. 10), that are capable of performing quality control without taking the vehicle bodies off the assembly line. (Goesling Direct ¶ 168.)

b) Representative Asset No. 10

The Opticell – Robotic Measurement System ("Opticell"), which is located at the Lansing Facilities, is an OptiCell robotic measuring system that uses white light scanning technology to check a sampling of the finished stamped metal panels for quality assurance

purposes. The asset includes the robot itself and the robotic transportation unit on which the robot slides.[14] The asset was put into service in March 2006 and had an installed cost of $630,726.

The components of the Opticell include: a six-axis Fanuc model R2000iA robot mounted on a slide system with a light scanner mounted on the end of the robot's arm, a control system, and a hydraulic/pneumatic lift to move the sample part into place. (Goesling Direct ¶¶ 86, 87; JX-1103.) The various components of the Opticell are assembled or attached with nut and bolt fasteners, quick connect cable fittings, and flexible loose wiring in cable trays that allow for simple installation, removal, and relocation. (Goesling Direct ¶ 90.)

The robot itself is bolted to a pedestal, which is in turn secured to a trolley with Allen bolts; the trolley itself moves freely along a slide system metal rail that is lag bolted to the floor. (*Id.*; JX-1105.)

The hydraulic lift is attached to the floor with lag bolts and the cart mounted on it has castor wheels for movement. (Goesling Direct ¶ 90; JX-1104.)

A system control panel, which operates the scanning system and robot together, is attached by a handful of lag bolts to the floor and has eye bolts mounted on the top as lift points. (Goesling Direct ¶¶ 87, 90; JX-1111.)

In 2016, GM relocated Representative Asset No. 10 within the Lansing Regional Stamping facility as part of the expansion of the body shop at Lansing Delta Township Assembly. (Miller Direct ¶ 158; Trial Tr. (Stevens) at 425:6–17; Goesling Direct ¶ 91.) The

[14] Defendants believe that the associated safety fencing was included in GM's fixed asset ledger as part of this asset; Plaintiff believes that the associated safety fencing was not included in GM's fixed asset ledger as part of this asset.

relocation of Representative Asset No. 10 took place over a weekend. (Trial Tr. (Miller) at 1223:20–1225:3.)

8. Miscellaneous Assets

a) Representative Asset No. 13

Body Shop Weld Bus Ducts, which is located at the Lansing Facilities, consists of the electric power distribution weld bus ducts for the welding operations in the body shop. The weld bus ducts deliver electrical power to body shop equipment, such as robot mounted weld guns and other weld equipment. The bus ducts are installed overhead throughout a large portion of the body shop, and run over 10,000 feet in length. (Stevens Direct ¶ 182.) The asset was put into service in July 2006 and had an installed cost of $3,993,837.

The BS Weld Bus Duct is a modular system that is constructed using standard two to ten-foot long linear sections and various elbows, with the sections connected to each other with a single bolt. (Goesling Direct ¶¶ 157, 161; Trial Tr. (Stevens) at 185:5–17.) The majority of the BS Weld Bus Duct is attached to the building roof trusses with threaded rod and I-beam clamps. (JX-1181; JX-1182; Goesling Direct ¶ 161; Trial Tr. (Stevens) at 185:5–17.) Representative Asset No. 13 is made up of approximately 10,000 feet of bus ducts. (Trial Tr. (Stevens) at 182:18–25.)

The Weld Bus Duct layout was determined at the time LDT was built to align with the layout of the framing line and subassembly cell configuration, so that the Weld Bus Ducts would be capable of supporting all of the welding equipment that GM had specified for installation in the LDT body shop. Given the broad expanse of the Weld Bus Ducts throughout the LDT body shop, removal would take weeks and would cause the LDT body shop, and by extension all of LDT, to be idled until an identical asset was put in place. (*Id.* at 182:18–185:4; Stevens Direct ¶ 183.)

b) Representative Asset No. 34

Build Line W/ Foundation, which was located at Warren Transmission, was an assembly line used for producing 4-speed transmissions. The foundation in which the asset was installed is a fixture. (The parties disagree whether the foundation is part of the Representative Asset or part of a separate eFAST ledger line). The build line with foundation was put into service in December 1983 and had an installed cost of $3,580,522. After the 4-speed transmission line stopped manufacturing transmissions, the assembly line was removed and the foundation was filled in. Representative Asset No. 34 ceased operation prior to June 30, 2009, and was disassembled and removed from the facility prior to the May 2016 plant inspection. (Goesling Direct ¶ 260.)

Representative Asset No. 34 was one of four similar assembly lines located in the same building at Warren Transmission that have since been removed. (*Id.*; PX-0219 (showing three additional eFAST entries for "Build Line w/ Foundation" at Warren Transmission).) Unlike the other conveyors at issue in this case, the build line was a manual operation. The conveyor included build pedestals that were built on top of the conveyor chain. The manual assembly process started with an operator loading a transmission housing onto a pedestal while the conveyor continually moved. Subsequent operators would install their parts as the housing moved by their operations, over and over, as dozens of operations were performed manually by human operators, until at the end the final operator would lift the assembled transmission off the build line. Components for the transmission would be delivered to operators at several locations along the length of the conveyor. (Deeds Direct ¶ 188; JX-1521; DX-102.)

The Build Line was installed in a pit, which is a separate ledger entry on GM's books. Based on the name of this asset in GM's asset ledger, "Build Line w/ Foundation," as well as the $3.5 million installed cost as of 1983, the evidence indicates that both the conveyor and its

components (drive motors, gear boxes, controls), plus the 325 feet long by 15 feet wide by 10 feet deep steel-reinforced concrete foundation that was installed to support the conveyor, were all part of this asset's ledger entry and thus part of the asset for purposes of this case. (Deeds Direct ¶ 189.)

Regardless, all of the elements of the Build Line, from the 300 foot conveyor, to its foundation, to the pit in which it was installed, worked together as an integrated whole to serve a critical function on the 4-speed line.

The pit holding Representative Asset No. 34 was filled in after removal and the area remains empty, without any evidence of the prior installation. (JX-1518; JX-1515; Goesling Direct ¶ 264.) The area was healed by pouring a four-inch concrete floor over the area where the asset resided, and is ready for reuse by GM for purposes suitable on four-inch concrete floors. (JX-1522 (video of Representative Asset No. 34); Goesling Direct ¶ 264.)

c) Representative Asset No. 37

Courtyard Enclosure, which is located at Warren Transmission, is an enclosure that is currently being used for part storage. The asset was put into service in December 1982 and had an installed cost of $8,384,325. Around 2012–2013, the Courtyard Enclosure was extensively renovated in preparation for the installation of GM's new electric drive unit for the Chevy Volt. (Deeds Direct ¶ 201 & Ex. A at 10; DX-1082; Trial Tr. (Deeds) at 585:24-586:14.)

The Courtyard Enclosure is a 180 feet wide, 550 feet long and 30 feet high building extension that enclosed vacant space between buildings at Warren Transmission. (Goesling Direct ¶ 242; Deeds Direct ¶ 201–02.)

Construction of the Courtyard Enclosure consisted of the removal of an exterior wall, construction of a concrete floor at the same level of the adjoining building areas, and the addition of structural steel framing, a steel truss roof structure with metal panel decking, fluorescent

lighting, heating and ventilation ductwork, sprinkler piping, urinals, sinks, hot water tanks, and lighting transformers. (JX-1556; JX-1558; Goesling Direct ¶ 242; Deeds Direct ¶ 203.) The additions to the building to create the Courtyard Enclosure are all ordinary building materials. (Deeds Direct ¶ 9; JPTO ¶ 15 (stating that Defendants assert that "certain non-building components of the asset are fixtures").)

9. The Central Utility System: Representative Asset No. 11

Lansing Delta Township Assembly Utility Services, which is located at the Lansing Facilities, is the "CUC" for the Lansing Facilities. The asset includes the building itself, as well as the water, air, heating, processing and electric systems contained within it. The asset was put into service in April 2006 and had an installed cost of $73,997,467. (JPTO ¶ 84.)

The CUC building is a steel frame and wall panel structure with a metal roof built upon a concrete slab and foundation and contains approximately eight bay doors and several standard exterior doors. (JX-1155; Goesling Direct ¶ 198.) Certain rooms are separated from the main interior space by cinder block partition walls. (Goesling Direct ¶ 198.)

The CUC building also includes various utilities common to most industrial real estate. (JX-1118; JX-1123; Goesling Direct ¶ 198.) These common utilities include heating and ventilation systems; a sprinkler system for fire protection; underground utility piping for natural gas, water, and sewer; an underground storm water piping system; a sanitary waste piping system; a lighting system including interior lighting, outdoor lighting, exit lights, and emergency lighting; a fire alarm system; a security system; voice and data communication systems; and an electrical power distribution system. (Goesling Direct ¶ 199.) The parties agree that the portions of the CUC consisting of ordinary building material are not fixtures. (JPTO ¶ 116; Goesling Direct ¶ 200.)

The component assets contained within the CUC are described briefly below. The Court will refer generally to the components within the CUC, but not the CUC building itself, as the "CUC Systems."

Component	Description
Pumps	The assets are mounted on a skid that is bolted to a four-inch-thick pad. JX-1116. (Goesling Direct ¶ 205.) Electrical power is delivered to the Pumps by flexible cabling or wire in metal conduit. (*Id.*)
Compressed Air System	The asset includes four air compressors and four air dryers that generate compressed air for GM's production needs at Lansing Delta Township. (*Id.* ¶ 215.) The compressors are bolted to a four-inch concrete pad. (JX-1119; Goesling Direct ¶ 217.) Two of the compressors and all of the air dryers are mounted on skids which contain lift points at each corner. (JX-1145; Goesling Direct ¶ 217.) Maynards/Hilco sold three auction lots comprised of fifteen air compressors and five air dryers from the Moraine and Pontiac facilities in 2010 for a total of $80k. (PX-0348B - Asset 11(a)-0003 (rows 11928, 11929, and 11930).)
Hot Water Boiler	The asset consists of three natural gas fired boilers that produce hot water for process use in the paint building, not for use in the building generally. (JX-1156; Goesling Direct ¶ 223.) The boilers are each mounted on a steel skid that is secured to a four-inch-thick concrete pad with lag bolts. (JX-1156; Goesling Direct ¶ 225.) Incoming electrical power is delivered through loose cabling contained in reconfigurable metal cable trays and wire in conduit. (Goesling Direct ¶ 225.)
Water Treatment System	The asset is comprised of two reverse osmosis units, a zeolite resin water softening system, a HMI control panel, and two 60,000 gallon fiberglass tanks. (JX-1120; JX-1135; JX-1122; Goesling Direct ¶ 226.) The water treatment system provides filtered and softened water for use in the painting process, not the building generally. (Goesling Direct ¶ 226.) The reverse osmosis units and water softening system are both skid-mounted and the skids are bolted to a four-inch thick concrete pad. (JX-1122; Goesling Direct ¶ 228.) Electrical and data cabling are fed to the reverse osmosis systems through flexible wiring in reconfigurable cable trays. (Goesling Direct ¶ 228.)

	The HMI control panel is bolted to the floor and has two top-mounted eye bolts which serve as lift points. (JX-1154; JX-1121; Goesling Direct ¶ 228.) The water holding tanks are enormous in size (approximately twelve feet by thirty feet). (Goesling Direct ¶ 229.)
Electrical Power Distribution	The asset consists of motor control cabinets, switchgear, and circuit breakers that are personal property and wiring that is a fixture. (JX-1041; Goesling Direct ¶ 208.) Other than the wiring, the components of the asset are bolted to the CUC building structure or to the floor. (Goesling Direct ¶ 210.)
Chilled Water System	The asset consists of five electric motor driven centrifugal chillers (personal property) and a cooling tower and a 3.3 million gallon welded steel tank (fixtures). (*Id.* ¶ 219.) The system supplies cold water exclusively for use in the manufacturing operations at the Lansing Delta Township facility. (*Id.*) The chillers simply rest upon a four-inch-thick concrete pad without any attachment. (*Id.* ¶ 221.) Electrical power and data cabling is fed to the chillers via loose cable contained in reconfigurable cable trays and the chillers have several lift points. (JX-1146; Goesling Direct ¶ 221.) The chilled water tank is very large—having a capacity of 3.3 million gallons—and although only attached via gravity, its welded steel construction means it would be destroyed during removal. (Goesling Direct ¶ 222.) Similarly, the cooling tower was likely field-erected and would be destroyed during removal. (*Id.*)
Wastewater Treatment System	The asset is primarily comprised of two filter presses, two flocculation tanks, a mezzanine structure, two parallel plate clarifiers, a sludge conditioning tank, and two vertical ELPO waste tanks (personal property) and three batch wastewater holding tanks and a sludge holding tank (fixtures). (*Id.* ¶ 230.) The wastewater treatment system treats liquid industrial waste from the Lansing Delta Township facility. (*Id.*) The two filter presses are lag bolted to the floor and have an active secondary market. (JX-1131; JX-1130; Goesling Direct ¶ 232.) The flocculation tanks are affixed to a six-inch-thick concrete footing with lag bolts. (Goesling Direct ¶ 233.) As with all of the mezzanines used by GM, the mezzanine consists of sections bolted together and then bolted to the building and other pieces of equipment. (JX-1132; Goesling Direct ¶ 234.) Similarly, the structural supports for the mezzanine are connected together with nuts and bolts. (JX-1115; Goesling Direct ¶ 234.)

	The two plate clarifiers are affixed to concrete pads with lag bolts and they each have lift points on top. (JX-1133; JX-1115; Goesling Direct ¶ 235.) The two vertical ELPO waste tanks are large, but are attached to a concrete foundation with lag bolts. (JX-1113.) The sludge conditioning tank is attached with lag bolts to an eight-inch-thick concrete footing. (Goesling Direct ¶ 238.) The three batch wastewater tanks are very large (twenty-five feet by thirty feet) field fabricated, welded steel tanks. (JX-1151; Goesling Direct ¶ 236.) Although only attached by gravity, the size, weight, and method of construction of these tanks render movement of these assets wholly impractical. (Goesling Direct ¶ 236.) The sludge holding tank is fourteen feet in diameter by fourteen feet in height and would be impossible to remove without damage to either the asset or the building. (JX-1125; Goesling Direct ¶ 239.)
Piping	The asset includes all piping within the CUC building until five feet outside the CUC building. (Goesling Direct ¶ 204.) The Piping carries compressed air, exhaust gases, and fluids throughout the CUC building and to the Lansing Delta Township facility. (*Id.*) The asset would be destroyed on removal. (*Id.*)
43 Air Handling Units ("AHU")	The asset could not be inspected but its location on the roof suggests that removal would leave a hole in the roof. (*Id.* at ¶ 214.) Removal would also likely damage the material used for installation of a typical AHU, such as sheet metal flanges and flashing along with any ductwork that is included in this asset. (*Id.*)

The CUC is subject to three agreements relating to its construction, financing, maintenance, and use: (a) the Utility Services Agreement between Delta Township Utilities II, LLC ("Delta II") and Old GM – Worldwide Facilities Group, dated April 14, 2004 (the "USA") (JX-13); (b) the Tri-Party Agreement by and among Delta II, as debtor, GMAC Commercial Holding Capital Corp. (together with its successors in interest, "GMAC"), as lender, and Old GM, dated as of April 14, 2004 (JX-12); and (c) the Loan and Security Agreement by and between GMAC, as lender, and Delta II, as debtor, dated as of April 14, 2004 (the "LSA" and collectively with the USA and the Tri-Party Agreement, the "CUC Agreements") (JX-14). (JPTO ¶ 67.) Delta II was the utility operator of the CUC. Under the USA, GM granted certain

rights in the CUC Systems to Delta II, including current title to the CUC. (JX-13.) Under the LSA, Delta granted GMAC a security interest in Delta II's own interest in the CUC Systems. (JX-14.) GM retained the residual right to purchase the CUC at the expiration of the USA for only $10. (JX-13 at 125.)

10. Assets the Trust Concedes are Fixtures

a) Representative Asset No. 2

General Assembly Pits & Trenches, which is located at the Lansing Facilities, consists of various pits and trenches required for installation of certain machinery and equipment used in the general assembly of vehicles, including several conveyors. The Pits & Trenches houses the Final Line Skillet Conveyor (Representative Asset No. 21), among other conveyors and equipment. (Stevens Direct ¶¶ 270–71.) The asset was put into service in July 2006 and had an installed cost of $2,307,597.

b) Representative Asset No. 4

Paint Building Lines – Process Waste ELPO ("ELPO Waste System"), which is located at the Lansing Facilities, is the waste processing system for the Electro-coat Paint Operation, or ELPO system. The ELPO Waste System asset includes a trench, more than 1,000 feet of piping, and pumps. As the name suggests, the ELPO Waste System captures waste material that drains from tanks used for the ELPO process. The process waste from the ELPO paint system is then gravity-fed into the ELPO Waste System through manually operated valves and piping. The waste flows from the trench to a series of pumps, which then move the ELPO waste from the sump station through the walls and overhead pipes of the paint building to the filtration system at the building's Central Utility Complex. (Topping Direct ¶ 57.)

The ELPO Waste System is just one component of the larger ELPO system, which along with pre-treatment systems represents roughly twenty-five percent of the paint shop. (*Id.* ¶ 58.)

Without the ELPO Waste System, the entire ELPO process could not function; and without the rest of the ELPO process, the ELPO Waste System—which the Avoidance Trust concedes is a fixture—would likewise have no value. (*Id.*) The asset was put into service in April 2006 and had an installed cost of $935,780.

IV. LEGAL STANDARDS REGARDING FIXTURES

A. Michigan's Three Part Fixture Test

The Michigan Supreme Court has held: "Property is a fixture if (1) it is annexed to the realty, whether the annexation is actual or constructive; (2) its adaptation or application to the realty being used is appropriate; and (3) there is an intention to make the property a permanent accession to the realty." *Wayne Cty. v. William G. Britton & Virginia M. Britton Trust*, 563 N.W.2d 674, 676 (Mich. 1997).

1. Attachment

"[A]n object will not acquire the status of a fixture unless it is in some manner or means, albeit slight, attached or affixed, either actually or constructively, to the realty." *Wayne Cty.*, 563 N.W.2d at 678 (quoting 35 AM. JUR. 2d, Fixtures, § 5, at 703); *see, e.g.*, *In re Joseph*, 450 B.R. 679, 692 (Bankr. E.D. Mich. 2011) (finding that a mailbox hanging on two screws was attached to house); *Grand Traverse Cty. Land Bank Auth. v. Verizon Wireless*, No. 332804, 2017 WL 1908535, at *2 (Mich. Ct. App. May 9, 2017) (finding that a cell tower attached to anchors in ground only by three wires was a fixture; annexation satisfied "even where the attachment is 'slight'").

"Actual" annexation occurs when an item is affixed to real property physically; the use of bolts to affix an asset will usually suffice. *See, e.g.*, *Cincinnati Ins. Co. v. Fed. Ins. Co.*, 166 F. Supp. 2d 1172, 1180 (E.D. Mich. 2001) (noting that a milling machine was "anchored and

bolted"); *Tuinier v. Charter Twp. of Bedford*, 599 N.W.2d 116, 120 (Mich. Ct. App. 1999) (noting that greenhouses were "annexed" to the real estate "by both bolts and gravity").

Assets are deemed "constructively annexed" if "their removal from the realty would impair both their value and the value of the realty." *Wayne Cty.*, 563 N.W.2d at 679 (citing *Colton v. Mich. Lafayette Bldg. Co.*, 255 N.W. 433, 434 (Mich. 1934)). This is because "where the principal part of the machinery is [a] fixture due to actual annexation to the realty, the parts of it, although not actually annexed to the freehold, are fixture[s] where they would, if removed, leave the principal part unfit for use, and where of themselves they are not capable of general use elsewhere." *Id.* at 680 (citation omitted).

Assets that are not physically attached to real property may be constructively annexed in many different ways. *See, e.g.*, *Velmer v. Baraga Area Sch.*, 424 N.W.2d 770, 775 (Mich. 1988) (holding that assets may be "constructively attached by [their] weight" alone); *Sondreal v. Bishop Int'l Airport Auth.*, No. 250956, 2005 WL 599752, at *3 (Mich. Ct. App. Mar. 15, 2005) (holding that service stairs "bolted to the jetway" were fixtures "constructively attached to the realty" because they were "part of or accessory to machines or equipment that [were] attached to the realty[,] such that one [could not] readily be used without the other"); *Colton*, 255 N.W. at 434 (holding assets that were not affixed to the real estate at all were constructively annexed to an office building because the assets could not be "removed from the building or transported from place to place without impairing their value as well as the value of the building").

2. Adaptation

The adaptation prong under Michigan law differs slightly from the adaptation prong in Ohio, as discussed below. As recently as 1997, the Supreme Court of Michigan stated that "[n]o Michigan case [had] addressed the adaptation prong of the fixture test." *Wayne Cty.*, 563 N.W.2d at 680. The court went on to articulate the Wisconsin definition of adaptation as being

dependent on "the relationship between the chattel and the use which is made of the realty to which the chattel is annexed," and described this test as "a useful guide in developing [its] jurisprudence in this area." *Id.* (quoting *Premonstratensian Fathers v. Badger Mut. Ins. Co.*, 175 N.W.2d 237, 241 (Wis. 1970).

In *In re Mahon Indus. Corp.*, the Eastern District of Michigan Bankruptcy Court stated that "[t]he test . . . requires the Court to look at the nature of the structure and the adaptation of the article to that structure, not the business of the plaintiff or previous tenants." *See In re Mahon Indus. Corp.*, 20 B.R. 836, 839–40 (Bankr. E.D. Mich. 1982). But in *Cincinnati Insurance*, the Eastern District of Michigan held that the adaptation test was met for a large, computer controlled milling machine purchased secondhand because it was used by a manufacturer of automobile and aerospace parts "in the regular course of its business." *Cincinnati Ins.*, 166 F. Supp. 2d at 1180.

Similarly, in *Smith v. Blake*, the Michigan Supreme Court held that, among other items, a metal lathe and a "cupola furnace" used in a foundry and manufacturing business were "adapted" to the realty because the building at issue had been "erected many years [before] for a foundry and machine shop," and the assets were "adapted to the business for which the building was erected." 55 N.W. 978, 979 (Mich. 1893).

Additionally, in *Cliff's Ridge*, the parties stipulated that the asset in question, a ski chair lift, was "engineered to be erected on the realty and the chairlift being specially modified to be attached to the realty." *In re Cliff's Ridge Skiing Corp.*, 123 B.R. 753, 759 (Bankr. W.D. Mich. 1991). The court noted that the property, being so specialized, likely could not be used for any other purpose than as a ski hill. *Id.* (noting that the asset "was adapted to the ski hill real property for its use and purposes").

3. Intent

The final element of the three-part fixture test is "intention to make the property a permanent accession to the realty." *Wayne Cty.*, 563 N.W.2d at 676. To determine whether a landowner intended to make an object a fixture, "[t]he intention which controls is that manifested by the objective, visible facts." *Mich. Nat'l Bank v. Lansing*, 293 N.W.2d 626, 627 (Mich. Ct. App. 1980) *aff'd by equally divided vote*, 322 N.W. 2d 173 (Mich. 1982); *see also Wayne Cty.*, 563 N.W.2d at 680 (stating that intent is determined by "objective visible facts" from the "surrounding circumstances"). "The surrounding circumstances determine the intent of the party making the annexation, not the annexor's secret subjective intent." *Id.* This objective "[i]ntent may be inferred from the nature of the article affixed, the purpose for which it was affixed, and the manner of annexation." *Id.* The "installation" of an asset "by the owner of the land raises a presumption under Michigan law that the accession was intended to be permanent." *In re Johns-Manville Sales Corp.*, 88 F.2d 520, 521 (6th Cir. 1937); *see also Cliff's Ridge*, 123 B.R. at 759; *Mahon Indus*, 20 B.R. at 839; *Tyler v. Hayward*, 209 N.W. 801, 802 (Mich. 1926) ("Where the owner annexes them the presumption follows that he intended they should become realty.").

It is the intention of the owner at the time of installation that matters. *See, e.g.*, *Colton*, 255 N.W. at 434 (stating that "it was the intention of the [owner] when they purchased such articles" that controls); *In re Joseph*, 450 B.R. at 694 (stating that "evidence about what Debtors may have believed and intended" subsequently when articles were removed "has no probative value in trying to show what Debtors believed and intended several years earlier, when they affixed the disputed items to the [real estate]"); *Morris v. Alexander*, 175 N.W. 264, 264–65 (Mich. 1919) (stating that classification depends on "intent of the defendant when the articles were installed").

Moreover, "[t]he permanence required is not equated with perpetuity." *Tuinier*, 599 N.W.2d at 119 (quoting *Mich. Nat'l Bank*, 293 N.W.2d at 627). Rather, "[i]t is sufficient if the item is intended to remain where affixed until worn out, until the purpose to which the realty is devoted is accomplished or until the item is superseded by another item more suitable for the purpose." *Mich. Nat'l Bank*, 293 N.W.2d at 627; *Grand Traverse*, 2017 WL 1908535, at *3; *In re Joseph*, 450 B.R. at 690.

Courts consider various factors to infer the intent of an asset owner. These factors include (i) "the purpose for which [the asset] was affixed," *Wayne Cty.*, 563 N.W.2d at 680, (ii) whether the asset has been "physically integrated" with other on-site machinery or utilities, *Mich. Nat'l Bank*, 293 N.W.2d at 628, (iii) whether the asset was "specially modified to be attached to the realty," *Cliff's Ridge*, 123 B.R. at 759, (iv) "the nature of the [asset] affixed," such as its size and weight, *Wayne Cty.*, 563 N.W.2d at 680, and (v) "the manner of annexation." *Id*.

Courts may also infer intent where either the asset has been customized to fit within the particular realty or the realty has been customized to accommodate the asset. For example, in *In re Joseph*, the court held that "custom-sized" window blinds were intended to be permanent, as was a refrigerator that was "designed to blend with, and appear to be part of, the kitchen cabinetry." 450 B.R. at 696–97; *see also Cliff's Ridge*, 123 B.R. at 759 (chairlift was a fixture in part because it was "engineered to be erected on the realty" and had been "specially modified to be attached to the realty"). Permanently altering the realty in such a manner as to accommodate a particular asset naturally is an indication that the installation was meant to be permanent.

B. Ohio's Three-Part Fixture Test

Ohio, like Michigan, has a three-part test: (1) "annex[ation] to some extent to the realty"; (2) "application to the use or purpose to which the realty to which it is attached, is devoted"; and

(3) "actual or apparent intention upon the part of the owner of the chattel in affixing it to the realty to make such chattel a permanent part of such realty." *Holland Furnace Co. v. Trumbull Sav. & Loan Co.*, 135 Ohio St. 48, 52 (1939) (citing *Teaff v. Hewitt*, 1 Ohio St. 511 (1853)).

1. Attachment

Ohio law regarding attachment is substantially similar to Michigan law. *See In re Szerwinski*, 467 B.R. 893, 902 (B.A.P. 6th Cir. 2012) ("Slight or constructive attachment is all that is required as long as the other two elements are established."). Like in Michigan, in Ohio fixtures may be attached to the realty in different ways. *See e.g.*, *Whitaker-Glessner Co. v. Ohio Sav. Bank & Tr. Co.*, 22 F.2d 773 (6th Cir. 1927) (holding machines in vegetable-canning plant annexed "by bolts or screws and connected together" are fixtures); *In re Kerr*, 383 B.R. 337, 342 (Bankr. N.D. Ohio 2008) (holding that cabinets and appliances "attached to . . . something attached to the real property" are fixtures).

2. Adaptation

The Supreme Court of Ohio held in *Teaff v. Hewitt*, a seminal fixture case in Ohio, that the adaptation prong requires "[a]pplication to the use, or purpose, to which that part of the realty with which it is connected, is appropriated." 1 Ohio St. 511 (1853); *see also Masheter v. Boehm*, 307 N.E.2d 533, 537 (Ohio 1974) ("The formula postulated in [*Teaff*] was adopted by courts throughout the country as the fixed pole in the development of the law of fixtures."); *Roseville Pottery v. Bd. of Revision*, 77 N.E.2d 608, 611 (Ohio 1948) ("We have, fortunately, [*Teaff*], which is probably the landmark case on this subject. That case has been cited and followed, not only by this court but by courts all over the nation . . . ."); *Zangerle v. Standard Oil Co. of Ohio,* 60 N.E.2d 52, 58 (Ohio 1945) (*superseded by statute*) [hereinafter *Zangerle*]. In *Teaff*, the Supreme Court of Ohio found "motive-power equipment" to be a fixture in a manufactory

because it was "beneficial, if not necessary, to the use of the land . . . regardless of the nature of the business which may be located on such land." *Zangerle*, 60 N.E.2d at 56.

The adaptation prong was voiced slightly differently by the *Holland* court years later as follows: "the chattel must have an appropriate application to the use or purpose to which the realty to which it is attached, is devoted." *Holland*, 19 N.E.2d at 275.

The Plaintiff relies heavily on a number of cases arising in the tax context that involve a fixture analysis, which tend to emphasize the notion that to be adapted to the realty, an asset must be beneficial to the land rather than just the business that is conducted on the land. This differentiation between the land and the business being carried out on the land was explained in *Fortman v. Goepper*. There, the Supreme Court of Ohio stated:

> The general principle to be kept in view . . . is the distinction between the business which is carried on in or upon the premises, and the premises . . . The former is personal in its nature, and articles that are merely accessory to the business, and have been put on the premises for this purpose, and not as accessions to the real estate, retain the personal character of the principal to which they appropriately belong and are subservient. But articles which have been annexed to the premises as accessory to it, whatever business may be carried on upon it, and not peculiarly for the benefit of a present business which may be of a temporary duration, become subservient to the realty and acquire and retain its legal character.

Fortman v. Goepper, 14 Ohio St. 558, 567–68 (1863). The *Zangerle* case elaborated further on the adaptation test posited in *Teaff* and *Fortman*. The case involved a tax dispute regarding the difference in tax rate between realty, including "improvements" made thereupon, and personal property. *See Zangerle*, 60 N.E.2d at 54–55. The Supreme Court of Ohio in *Zangerle* held that "[t]he decisive test of appropriation is whether the chattel under consideration in any case is devoted primarily to the business conducted on the premises, or whether it is devoted primarily to the use of the land upon which the business is conducted." *See id.* at 57.

The Defendants ask the Court to disregard the adaptation analysis promulgated by *Zangerle* and its progeny because the underlying issue in those cases were tax disputes governed by a highly specialized and distinct code not applicable to this dispute. Not surprisingly, the Defendants focus on the language in *Holland* that indicates that where an asset has an application that serves to further the purpose to which the realty is devoted, the adaptation prong is met. *See Holland*, 19 N.E.2d at 275.

But on the whole *Zangerle* and its progeny appear to apply a general fixture analysis for determining whether an asset was an improvement to the realty and taxable as such. *See Zangerle*, 60 N.E.2d at 56 ("In deciding the instant case, this court may rely for authority on [*Teaff*] and the subsequent cognate cases decided by this court, in which the rules of law laid down by the court in that leading case have been consistently followed."). The Supreme Court of Ohio used this general fixture analysis to determine in both cases that the assets in question did not satisfy the "second requisite of the test of a fixture . . . that the annexed chattel must have such a relationship to the land or improvements already constructed thereon as to be necessary or beneficial to its enjoyment, independent of the business presently carried on." *Id.*

This formulation of the adaptation test has also been applied in other contexts. In *Masheter v. Boehm*, the Supreme Court of Ohio used general fixture analysis to determine whether assets were personal property or part of the realty in an appropriation proceeding. 307 N.E.2d 533, 538 (Ohio 1974) (discussing with approval the three-part fixture test set forth in the *Fortman* and *Zangerle* tax cases in an appropriation case). The adaptation test outlined in the tax fixture cases has also been applied in Ohio bankruptcy courts. *See Jarvis v. Wells Fargo Fin. (In re Jarvis)*, 310 B.R. 330 (Bankr. N.D. Ohio 2004). The *Jarvis* court used fixture analysis to determine "the validity and priority of certain liens." *Id*. at 334. For the purposes of this

litigation, the mortgagor of property owned by the debtor asserted that "hog and farrowing structures" were fixtures, and therefore part of the real property and their value recoverable at a higher priority. *Id.* at 335.

In the context of the dispute before this Court, where the Representatives Assets located in Ohio are housed in specialized facilities, such as a foundry, these two different formulations of the adaptation test appear to blend together. As discussed further below, the Defiance Foundry is a foundry and can be used for no other purpose, and therefore assets that benefit the foundry by allowing it to operate and continue as a foundry would appear to satisfy the adaptation prong under either construction of the adaptation prong.

3. Intent

Courts in Ohio have emphasized that "[t]he most important factor in determining whether personal property is a fixture is the intention of the party responsible for annexing the item." *Gen. Elec. Co., Lighting Div. v. Am. Mech. Contractors Corp*., No. 2000-L-211, 2001 WL 1647158, at *3 (Ohio Ct. App. Dec. 21, 2001) (citation omitted). To satisfy the intent factor, the owner's "apparent or legal intention to make [the asset] a fixture is sufficient." *Holland*, 19 N.E.2d at 275. As in Michigan, "it is the intent at the time the chattel is affixed" that controls; "if the owner changes his or her mind later, the fixtures are not transformed back into chattel." *Fifth Third Mortg. Corp. v. Johnson*, 2011 WL 6929621, at *4 (Ohio Ct. App. Dec. 27, 2011) (citing *Holland*,19 N.E. 2d at 275). This intent "may be inferred from," among other things, "the nature of the article affixed, the relation and situation of the party making the annexation, the structure and mode of annexation, the purpose and use for which the annexation is made, [and] the utility in use or the . . . in the use of the whole." *Holland*, 19 N.E. 2d at 275.

For example, the Ohio Court of Appeals held in *Mid-Ohio* that the paint line used to coat auto bumpers was intended to be permanent because it was installed by "welding and bolting

items, including structural steel, to the building, so that the owner [could] produce the parts it need[ed] to conduct its business." *Mid-Ohio Mech. Inc. v. Carden Metal Fabricators, Inc.*, 862 N.E.2d 543, 547 (Ohio Ct. App. 5th Dist. 2006). The *Mid-Ohio* court so concluded notwithstanding that the paint line "could be detached from the factory." *Id.*

C. Burden of Proof

The parties agree that under the specific circumstances of this dispute, Defendants bear the burden of proof regarding whether an asset is a fixture. (JPTO at 4.) But, as noted above, with respect to the intent element, the "installation" of an asset "by the owner of the land raises a presumption under Michigan law that the accession was intended to be permanent." *Johns-Manville Sales Corp*., 88 F.2d at 521; *Cliff's Ridge*, 123 B.R. at 759; *In re Mahon Indus. Corp*., 20 B.R. at 839.

Accordingly, while the Defendants are entitled to a presumption of GM's intent for the assets to remain in place permanently (as the owner of the real property of which the assets were installed), the Defendants nonetheless bear the burden of proof in establishing that each of the Representative Assets is a fixture.

D. The Issue Whether, Under Ohio and Michigan law, in order to Satisfy the Adaptation Prong, the Asset in Question Benefits the Business or Realty

Under both Michigan and Ohio law, whether an asset is a fixture is a "mixed question of law and fact." *See, e.g.*, *Nadolski* v. *Peters*, 50 N.W.2d 744, 747 (Mich. 1952); *Sturtz Mach., Inc.* v. *Dove's Indus. Inc.*, No. 5:13cv404, 2014 WL 1383403, at *1 n.9 (N.D. Ohio Apr. 8, 2014). Given the nature of the three-part test set forth by the Michigan and Ohio courts, the fixture analysis is naturally very context-specific and fact-driven. The two tests are substantially similar under the attachment and intent prongs, but there are also common themes running through the adaptation prong in both states, and both require in some sense that the asset be

adapted to the realty, or the purpose attendant to the realty. A key component of the determination under the adaptation prong will be how the realty and its purpose is defined.

In other words, if realty was constructed for general use as an industrial building, with no particular manufacturing process in mind, then it is much harder, if at all possible, to suggest that assets specific to the particular operations that ultimately take place on the premises were adapted to the realty. For example, one can imagine a generic one-room structure might contain no asset-specific concrete foundations or pits, no hard conduit permanently supplying utilities to particular assets in particular locations, or no accommodations to allow for conveyors to flow seamlessly to assets in different locations, and in such a scenario, the analysis of the adaptation prong would necessarily need to account for the lack of any such adaptations.

But the evidence relating to the Warren plant, LDT, and the Defiance Foundry submitted at trial show that the premises likely cannot be designated for any other manufacturing or industrial purpose aside from the purposes for which they were built—namely, to produce parts for automobiles, or produce and assemble automobiles themselves.

Take, for example, the layout of the LDT facility. (Stevens Direct, Ex. A at 11.) An overhead view of the LDT facility demonstrates that the realty at LDT is plainly not a generic industrial building that any manufacturing operations could take place in, but rather, the LDT facility walls zig-zag at unique angles in a manner plainly evidencing a specific purpose—to accommodate specific assets designed for a specific manufacturing process. LDT, then, is an automotive manufacturing plant designed to produce cars, and assets within it that function to further that objective are naturally "integral and necessary" to the realty, given that the realty was designed for the use to which the property is dedicated. *Holland*, 19 N.E.2d at 275.

The Defiance Foundry in Ohio likewise is a foundry designed to produce parts to be used in the automotive manufacturing process. And as evidenced by the exhibits showing an overhead view of the foundry, this realty could be used only as a foundry, and for nothing else. (Thomas Direct, Figure 2 at 13 (see above).) For example, the pits adjacent to the foundry contain hazardous material, and would require substantial remediation should the land ever be put to any other use. The foundry site contains an EPA-mandated landfill for toxic foundry sand and stores contaminated core and foundry sand so that harmful waste does not escape to nearby water sources. (Thomas Direct ¶ 30 & Ex. A at 49; Trial Tr (Thomas) at 748:13–749:3.) Any subsequent purchaser of the premises would be required to maintain compliance with foundry-specific EPA regulations for this portion of the foundry site. (Thomas Direct, Ex. A at 49.)

The Defiance Foundry was built specifically to conduct foundry operations. The hazardous pits and ponds surrounding the facility, along with all of the foundry-specific transportation adaptations to the realty (e.g., the railcar routes leading in to the area of the foundry where the Charger Crane operates), render this realty suitable solely for foundry operations. And the assets within the foundry that operate in furtherance of that aim are naturally "essential to the use or purpose of the realty" because the assets are plainly "integrated into the factory" and its intended operational goals. *Mid-Ohio Mech.*, 862 N.E.2d at 547.

The Plaintiff suggests that the primary purpose of the buildings is simply to "provide shelter for the assets." (Trial Tr. (Goesling) at 3268:15–19.) But a more accurate explanation need also convey that the purpose of the realty is to support the manufacturing assets and the specific production processes to be contained in the building. As part of the integrated process that runs throughout each of the facilities in question, each asset in a production line (including the Representative Assets) is designed to work with and depend upon every other asset in the

line. And much of each plant's integrated equipment also had to be specifically adapted to fit the real estate. For example, Stevens oversaw the work to specially design equipment layout and conveyors to fit within a particular space or column configuration (or had to specially design a particular space to fit the equipment and conveyors). (Stevens Direct ¶ 39.)

This all goes to show that the asset within GM's manufacturing plants work both together, and in confines of the realty that was constructed to house them.

V. CONCLUSIONS OF LAW REGARDING PRELIMINARY ISSUES

A. The "Relatedness" of the MFD Pontiac and Powertrain Engineering Facilities

1. The Defendants' Contentions

The Defendants assert that they have a perfected security interest in fixtures at Powertrain Engineering Pontiac under Article II(a) of the Collateral Agreement because Powertrain Engineering Pontiac is "related" or "appurtenant" to MFD Pontiac, a facility in which the Defendants have a perfected security interest in its fixtures. The Defendants claim that the two facilities are related because they were mapped on the same tax parcel, the Pontiac Fixture Filing referred to the land where both facilities are located as a single unit, it has a reputation among employees of being described as a single unit, a single central utility complex provides electrical power and steam to both facilities, both share security services, and are treated as a single unit during negotiations with the UAW. The Defendants assert that all of these factors show that Powertrain Engineering Pontiac is "related" to MFD Pontiac and that they therefore have a perfected security interest in the fixtures located at Powertrain Engineering Pontiac.

2. The Plaintiff's Contentions

The Plaintiff agrees that the Defendants have a perfected security interest in fixtures at MFD Pontiac, but asserts that the Defendants do not have a perfected security interest in fixtures

at Powertrain Engineering Pontiac. The Plaintiff asserts that Powertrain Engineering Pontiac is not identified on Schedule 1 of the Collateral Agreement and is not "related" or "appurtenant" to MFD Pontiac and therefore is not covered by the Collateral Agreement. The Plaintiff asserts that MFD Pontiac and Powertrain Engineering Pontiac do not share any operational functions, are not physically connected, the work done at the facilities is not related, and the facilities have different addresses and are on opposites sides of the street. The Plaintiff argues that had the parties intended for the Term Loan Agreement to cover the fixtures located at Powertrain Engineering Pontiac, that facility would have been listed on Schedule 1 of the Collateral Agreement.

3. Discussion

Here, the Court finds that Powertrain Engineering Pontiac is not "related" or "appurtenant" to MFD Pontiac. The two facilities are involved with different operations entirely, with little to no overlap in functionality or purpose. MFD Pontiac is a stamping facility where body panels and motor components are stamped for use in New GM assembly plants. (Buttermore Direct ¶ 42; Trial Tr. (Buttermore) at 1311:15–17.) By contrast, Powertrain Engineering Pontiac is a research and development facility where New GM designs, engineers, develops, and tests engines and transmissions. (Buttermore Direct ¶ 42). Additionally, the engineering that takes place at Powertrain Engineering Pontiac is not specific to the manufacturing and production at MFD Pontiac. (Trial Tr. (Buttermore) at 1311:18–1312:7.) The facilities have no apparent relationship to one another and are thus not "related" within the meaning of the Collateral Agreement.

The Defendants advocate for a broad definition of the term "related," but this definition must be rejected. To adopt such an expansive definition of relatedness would negate the purpose of listing facilities on the Schedule 1 of the Collateral Agreement, since all facilities would be

"related" to each other in some degree because they are owned and managed by GM. The only factors pointing toward the relatedness of the facilities are the utility trestle connecting the two facilities and the fact that employees are part of the same union. These two factors pale in comparison to the factors discussed above, showing their significant functional and operational differences and only slight physical connection. The Defendants' remaining arguments are unpersuasive. The fact that the two facilities were on a parcel of land covered by one tax number does not show that they are related, it only shows that they have the same owner. "Owned" and "related" have different definitions, and the lack of the use of the former in Article II(a) of the Collateral Agreement indicates that the Collateral Agreement was not meant to incorporate that term. Likewise, the other factors cited by the Defendants only show a connection between the facilities through ownership, not relationship. The Plaintiff is correct in asserting that had the parties intended for the Term Loan Agreement to cover the fixtures located at Powertrain Engineering Pontiac, that facility would have been listed on Schedule 1 of the Collateral Agreement.

4. Conclusion

Powertrain Engineering Pontiac is not "related" or "appurtenant" to MFD Pontiac and is therefore not covered by the Collateral Agreement. Any fixtures located at Powertrain Engineering Pontiac are not subject to the Lenders' security interest.

B. The Timeliness of the Trust's Challenge to the Eaton-County Fixture Filing

1. The Defendants' Contentions

The Defendants argue that the Plaintiff is time bared from contesting the validity of the LDT fixture filing because the Plaintiff did not assert this claim for relief in the Original Complaint or Amended Complaint. The Defendants contend that the Plaintiff, in its complaints, only took affirmative steps to challenge liens granted under the Collateral Agreement to the

extent they were perfected solely by the UCC-1 filed in Delaware, but neither complaint raised any issue with respect to perfection of any lien on fixtures by any fixture filing, including any defect in the LDT fixture filing. The Defendants allege that paragraph 601 of the Amended Complaint does not address challenging the perfection of any fixture filings, including those at LDT, and that this paragraph only challenges the *value* of the surviving collateral. (Am. Compl. ¶ 601.) As such, the Defendants maintain that, under the Collateral Agreement, they hold security interests on the fixtures located at LDT, whether or not they were properly perfected by a fixture filing or otherwise, and that because the statute of limitation has passed for commencing a separate adversary proceeding to challenge the priority of the LDT fixture lien, the Plaintiff is time barred from doing so.

2. The Plaintiff's Contentions

The Plaintiff argues that it may assert that the assets at the LDT facility are not subject to a fixture filing because this claim was properly raised in paragraph 601 of the Amended Complaint. The Plaintiff contends that paragraphs 590 to 603 of the Amended Complaint amount to an assertion that, due to the termination of the umbrella UCC-1, the Defendants did not perfect their first priority lien, and that they were entitled to be paid only to the extent of the value of any surviving collateral Defendants can demonstrate a perfected first priority security interest. (Am. Compl. ¶¶ 590–603.) The Plaintiff agrees that the Collateral Agreement provides the Lenders with a security interest in all fixtures at LDT; the issue is whether that security interest was properly perfected, and what are the consequences now if the security interest was not properly perfected. The Plaintiff admits the validity of the LDT fixture filing and that the Defendants have a perfected security interest in any fixtures located on the vacant lot described in Exhibit A to the fixture filing. The Plaintiff argues that since it "has not sought to use its avoidance powers under § 544(a) . . . a separate adversary proceeding was not required."

(Plaintiff's Post-trial Brief at 359 n.24, ECF Doc. # 994.) Instead, the Plaintiff asserts that the fixtures at LDT are not "Surviving Collateral" and the Defendants do not have a security interest in those assets because the Amended Complaint properly plead that the Plaintiff intended to challenge the priority of the LDT fixture liens at trial.

3. Legal Standard

a) Section 544

Section 544 of the Code gives the trustee in bankruptcy the status of a judgment lien creditor, allowing him to "avoid any transfer of property of the debtor or any obligation incurred by the debtor that is voidable by . . . a creditor that extends credit to the debtor at the time of the commencement of the case, and that obtains . . . a judicial lien on all property on which a creditor on a simple contract could have obtained such a lien . . . ." 11 U.S.C. § 544(a)(1). In other words, section 544(a) allows a trustee to avoid an unperfected security interest in a debtor's assets; a lien on collateral may be avoided if it was not perfected on the petition date. *Id*.; *see also Musso v. Ostashko*, 468 F.3d 99, 104 (2d Cir. 2006) ("The trustee hypothetically extends credit to the debtor at the time of filing and, at that moment, obtains a judicial lien on all property in which the debtor has any interest that could be reached by a creditor."). If this "hypothetical unsecured creditor could have obtained [at the time of filing] a judicial lien superior to the interest of the party bringing a secured claim in the bankruptcy proceeding, the estate can avoid the interest." 5 COLLIER ON BANKRUPTCY ¶ 544.03 (16th ed. 2017) (citation and internal quotation marks omitted). This means that security interests that are avoided lose their priority over unsecured claims and junior secured claims. An action under section 544 may not be commenced after the earlier of the later of two years after the entry of the order for relief or the time the case is closed. 11 U.S.C § 546(a).

b) Part VII of the Bankruptcy Rules

Proceedings to determine the "validity, *priority*, or extent of a lien" are "adversary proceedings" governed by Part VII of the Bankruptcy Rules. Fed. R. Bankr. P. 7001(2) (emphasis added). Under Rule 7001(2), "challenges to the validity [or priority] of a lien must be brought through an adversary proceeding." *In re Layo*, 460 F.3d 289, 294 (2d Cir. 2006); *see also* 4 WILLIAM L. NORTON JR., NORTON BANKRUPTCY LAW & PRACTICE § 63:4 (3d ed. 2016) ("[T]o exercise the avoidance powers under … § 544, [absent consent], the trustee must file a complaint under Bankruptcy Rule Part VII's adversary proceedings.").

An adversary proceeding is commenced with the filing of a complaint that is subject to the pleading standards in the civil rules. *See* FED. R. BANKR. P. 7008. This means that a pleading that challenges the priority of a lien must contain "a short and plain statement of the claim showing that the pleader is entitled to relief." FED. R. CIV. P. 8(a)(2). Rule 7007 applies the definition of a pleading from Rule 7 of the Federal Rules of Civil Procedure to adversary proceedings. *See* FED. R. BANKR. P. 7007. Under Rule 8, the complaint must contain "sufficient factual matter, accepted as true, to 'state a claim to relief that is plausible on its face.'" *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). These factual allegations "must be enough to raise a right to relief above the speculative level." *Twombly*, 550 U.S. at 548. Although Rule 8(a)(2) does not require a pleading to state the elements of a prima facie case, it does require the pleading to "give the defendant fair notice of what the plaintiff's claim is and the grounds upon which it rests." *Dura Pharms., Inc. v. Broudo,* 544 U.S. 336, 348 (2005) (citation and internal quotation marks omitted).

4. Discussion

Here, the Court finds that neither the Original Complaint nor the Amended Complaint properly asserts a claim challenging the priority of the liens on the fixtures at LDT. Since the

Plaintiff did not timely raise the issue and the statute of limitations for filing a new adversary proceeding has passed, the Plaintiff is time barred from raising this issue. Therefore, the perfection and priority of Defendants' security interest in the fixtures at LDT may not be challenged, regardless of whether they were properly perfected.

a) The Defendants Have a Security Interest in the Fixtures at LDT Pursuant to the Granting Clause of Collateral Agreement

Plaintiff has asserted that the assets at LDT were not part of the surviving collateral after the UCC-1 was held to be terminated. In its post-trial brief, the Plaintiff wrote that "all assets located at the Lansing Delta Township Assembly and Lansing Regional Stamping facilities are not Surviving Collateral because they are not covered by a fixture filing." (Plaintiff's Post-trial Brief at 338.) This statement is disingenuous: Plaintiff's counsel agreed during closing arguments that the assets at LDT were "subject to a grant of a security interest under the collateral agreement." (Trial Tr. at 3588:2–5.) The termination of the UCC-1 Statement did not remove the collateral from the Collateral Agreement—it only terminated the perfection of the security interests. *See* UCC Financing Statement Amendment (Form UCC3), *available at* https://www.iaca.org/wp-content/uploads/UCC3FinancingStatementAmendment-2.pdf ("2. TERMINATION: Effectiveness of the Financing Statement identified above is terminated with respect to the security interest(s) of the Secured Party authorizing this Termination Statement."). Accordingly, the Court finds that the Defendants did have a security interest in fixtures, including those at LDT. The inquiry now turns to whether the Plaintiff properly challenged the priority of the security interests of those fixtures.

b) Plaintiff was Required to Challenge the Priority of the LDT Fixtures in an Adversary Proceeding Under Rule 7001(2)

Challenges to the priority of a security interest must be brought in an adversary proceeding as required by Rule 7001(2). The Final DIP Order established a June 29, 2009 deadline to file adversary proceedings challenging the priority of any liens. (DX-10 (Final DIP Order ¶ 19(d)) at 25–26.) This order required the Plaintiff to file an adversary proceeding by that date in order to challenge the priority of any liens under section 544 at any time throughout the case. If the Plaintiff sought to challenge the priority of a lien in a separate adversary proceeding after the June deadline, that adversary proceeding must have been filed by June 29, 2011, two years after the order for relief was entered. 11 U.S.C § 546(a).

Here, the present adversary proceeding, initiated by the filing of the Original Complaint and later the Amended Complaint, is the only proceeding commenced by the Plaintiff. To satisfy Rule 7001(2), the Amended Complaint must properly challenge the priority of the fixture liens. Throughout its briefs, the Plaintiff dodges the priority issue, simply stating that "a separate adversary proceeding was not required" to challenge the LDT fixture filing. But Rule 7001(2) plainly states that challenges to the "priority" of a lien must be part of an adversary proceeding, and Plaintiff failed to do so. Plaintiff seeks to avoid Defendants' security interest in the LDT fixtures, but has failed to properly challenge the validity, perfection, or priority of the lien on the property described in the filing.

c) The Amended Complaint Does Not Satisfy the Pleading Requirement of Rule 8 to Allow the Plaintiff to Challenge the Priority of the LDT Fixture Lien

The only paragraph of relevance in the Amended Complaint on this issue is paragraph 601. Indeed, Plaintiff admitted at closing arguments that paragraph 601 in the Amended Complaint is the only paragraph it was relying on in arguing that it had timely challenged the

LDT fixtures. (Trial Tr. at 3597:14–18.) Thus, this Court will only analyze paragraph 601 to determine if it satisfies the pleading requirements of Rule 8.

Paragraph 601 does not contain "a short and plain statement" in which the Plaintiff challenges the priority of the fixture liens. FED. R. CIV. P. 8(a)(2). Absent from this paragraph are the words "priority," "fixture," "avoidance," and "LDT" or "Lansing Delta Township." This paragraph does not "raise a right to relief above the speculative level," nor does it "give the defendant fair notice of what the plaintiff's claim is and the grounds upon which it rests." *Twombly*, 550 U.S. at 548; *Dura Pharms., Inc.*, 544 U.S. at 348.

Plaintiff's arguments are post-hoc attempts to bootstrap what was required to be included in an adversary complaint. The single paragraph of the Amended Complaint, when read in context, cannot support the Plaintiff's assertions. The Plaintiff concedes that the fixtures at LDT are covered by the Collateral Agreement. (Trial Tr. at 3588:2–5.) Accordingly, the Defendants do indeed have a security interest in the fixtures at LDT. Challenges to the priority of a lien must be brought in an adversary proceeding. Paragraph 601 of the Amended Complaint is not an attack on the priority of unperfected security interests. It is an assertion that the assets covered by fixture filings are of "inconsequential value." This paragraph is simply another formulation of the Plaintiff's assertion that the value of the collateral under the Term Loan is inconsequential because the assets either are not fixtures, and thus are not part of the security interest, or are fixtures, but have very little value (*e.g.* the Pits and Trenches). Since paragraph 601 does not properly plead an attack on the priority of the Defendants' security interest under Rule 8, the Plaintiff is unable to dispute the priority of the LDT fixture lien in this adversary proceeding.

d) The May 2016 Letter Does Not Satisfy the Pleading Requirement of Rule 8 to Allow the Plaintiff to Challenge the Priority of the LDT Fixture Lien

The only document referencing the Plaintiff's intent to dispute the priority of the LDT fixture lien is the May 2016 Letter. However, this letter is insufficient to satisfy the pleading requirement of Rule 8, which requires a "*pleading* that states a claim for relief." FED. R. CIV. P. 8(a) (emphasis added). Rule 7 states "[o]nly these pleadings are allowed: (1) a complaint; (2) an answer to a complaint; (3) an answer to a counterclaim designated as a counterclaim; (4) an answer to a crossclaim; (5) a third-party complaint; (6) an answer to a third-party complaint; and (7) if the court orders one, a reply to an answer." FED. R. CIV. P. 7(a). A letter to the court is not listed as a document that qualifies as a pleading. Therefore, the May 2016 Letter does not satisfy the pleading requirement of Rule 8 to allow the Plaintiff to challenge the priority of the LDT fixture lien.

e) The Statute of Limitations for Raising this Issue Has Passed

The two-year statute of limitations period for filing a complaint challenging the priority of the fixture liens at LDT, clearly set forth in section 546, has passed as of June 29, 2011. Since an adversary proceeding raising that perfection issue was not commenced by that pleading deadline, the Plaintiff is time–bared from raising the LDT fixture filing perfection issue.

5. Conclusion

The assets at LDT are within the grant of collateral and retain their priority because the Plaintiff did not timely challenge the priority of those liens. Therefore, the lien on the fixtures at LDT may not be challenged, regardless whether the lien was properly perfected.[15] Whether the Representative Assets at LDT are fixtures is determined below.

[15] The parties disagree whether the Eaton County Fixture Filing was sufficient to provide notice of a lien against the fixtures at the Lansing Facilities. The Eaton County Fixture Filing included a metes-and-bounds

VI. GUIDING PRINCIPLES IN FIXTURE DETERMINATIONS

The legal principles in Michigan and Ohio relating to the determination whether an asset is a fixture are born out in the case law referenced above. But to assist the parties in utilizing this Opinion to facilitate settlement negotiations surrounding the many remaining disputed assets, the Court will set forth several guiding principles that may be distilled from the rulings on the Representative Assets.

A. Concrete Pits, Trenches, Slabs, or Specialized Foundations are Strong Indications that an Asset is a Fixture

As noted above, courts infer intent from "the manner of annexation." *Wayne Cty.*, 563 N.W.2d at 680. With respect to the Representative Assets, the assets themselves are affixed in a variety of ways, ranging from an assets weight alone, such as with the Helical Broach and some of the other machining assets, to bolts fixing an asset in place, such as with the conveyor

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description and street address of a vacant parcel of land *across the road* from the Lansing Facilities. Nevertheless, Defendants argue that the Eaton County Fixture Filing was enough to put a potential buyer or lender on "constructive notice" of the lien recorded against the fixtures at LDT, thereby perfecting the Term Lenders' security interest in the fixtures. Plaintiff counters that since the Eaton County Fixture Filing did not cover the Lansing Facilities, it did not provide constructive notice.

Plaintiff argues that the Eaton County Fixture Filing unambiguously fails to cover the Lansing Facilities, and therefore does not provide constructive notice. (*See* Plaintiff's Post-Trial Brief at 348–49.) Plaintiff emphasizes that both the street address and metes-and-bounds descriptions of the real property in the Eaton County Fixture Filing do not cover any part of the Lansing Facilities. (*Id.*) Plaintiff further argues that even under an "inquiry notice" standard, there is no evidence that a potential purchaser would have learned of Defendants' lien. (*Id.* at 350.)

The Court heard testimony from Defendants' expert James M. Marquardt, an experienced real-estate title searcher, who testified that the LDT fixture filing would have been located in a search for the official land records at the Eaton County register of Deeds, and relevant details of the lien would also have been communicated between a prospective buyer or lender and the property owner. (*See* Defendants' Post-trial Brief at 323.) Mr. Marquardt testified that a diligent title searcher would have encountered multiple ambiguities in a title search related to the Eaton County Fixture Filing, prompting him to conduct additional inquiries into the property, which would have resulted in the discovery of the Lansing Facilities, and sufficient notice. (*Id.* at 328–29.)

Because the Court finds that Plaintiff did not properly assert a timely claim challenging the priority of the liens on the fixtures at LDT, and that the statute of limitations passed before a challenge to the priority of the LDT fixture lien was raised in this (or a separate) adversary complaint, the Court need not resolve the issue whether the Eaton County Fixture Filing was sufficient to provide constructive notice. Defendants' security interest in the fixtures at LDT may not be challenged, and the issue whether the interest was properly perfected is of no moment.

systems, to concrete pits, foundations, or slabs that were constructed specifically to house an asset, such as with the presses and certain other assets.

Courts have consistently held that the use of concrete is strong evidence of attachment, but is also particularly indicative of the intent for an asset to become a permanent accession to the realty. For example, the Michigan Court of Appeals considered that greenhouses, held to be fixtures, were installed with "numerous stubs in cement-filled holes." *Tuinier*, 599 N.W.2d at 120. The court found this to be "objective evidence that petitioner intended to erect a permanent structure," and further, that "petitioner's construction of the concrete sidewalk is also evidence of an intent to make the structure permanent." *Id.* at 120–21.

Similarly, the District Court in the Eastern District of Michigan, in analyzing whether a large milling machine was a fixture, found it pertinent that the "foundation of the machine [was] poured concrete which is part of the floor in the . . . facility," and that "[t]he machine [was] anchored and bolted into the cement foundation at 38 different locations." *Cincinnati Ins.*, 166 F. Supp. 2d at 1180.

Likewise, the presence of a "concrete slab foundation" provided the court in *Ottaco* with a sufficient basis for finding that a mobile home was annexed to the realty. *Ottaco, Inc. v. Gauze*, 574 N.W.2d 393, 396 (Mich. Ct. App. 1997). The concrete slab foundation in that case appears to resemble the concrete slabs beneath the Paint Room Electrical System, and many of the assets within the CUC.

And in *Michigan National Bank* the court held that a bank "inten[ded] to permanently affix" drive-up teller equipment because it had been "physically integrated" with other assets and the realty itself, notably, because certain assets were "cemented into place." 293 N.W.2d at 627–28 ("Once installed, they [were] integrated with and become part of the wall in which they are

mounted.”). The use of concrete to physically integrate an asset with both the realty and other assets can be seen in LDT’s stamping operations with the presses. The presses are incorporated into the realty by way of the concrete pits dug into the earth that house the presses, and also integrated with other assets by virtue of the many front-of-line and end-of-line components, and other assets located in the pits and surrounding areas all working together with the presses. The concept of integration, and the *Michigan National Bank* case in particular, highlights the importance of concrete in the fixture determination, but also the relationship between assets and the realty, as well as the relationship between the assets themselves. The latter concept is discussed further below.

Because the presence of concrete weighs heavily in both the annexation and intent prongs of the fixture test, the Court finds it exceptionally useful in its determinations with respect to the Representative Assets to look to the presence of concrete pits, trenches, slabs, or specialized foundations as a strong indication that an asset is a fixture.

B. An Asset’s Integration With Other Assets and the Assembly Process

The Representative Assets conduct a wide variety of functions along the manufacturing process, and some assets are highly integrated with other assets along the assembly process. For example, the Aluminum Machining System operates in conjunction with sixty-one other assets, including sixty CNCs. Likewise each of the conveyors is unequivocally integrated and incorporated into the assembly and manufacturing process, and specifically integrated with other manufacturing assets by virtue of the fact that each of the conveyors must be connected, either physically or geographically, to other assets that perform essential functions along the manufacturing process. And importantly, many of these highly integrated assets actually interact with a product being manufactured as it moves through the assembly line.

Other assets, on the other hand, have little interaction or integration with other manufacturing assets. For example, the GA Paint Mix room stands separate and apart from other manufacturing assets at the very end of the manufacturing and assembly process. Its removal would not impact other assets, and its primary function could take place elsewhere in the facility, like in the paint shop itself. Accordingly, the GA Paint Mix Room has a low level of integration with other manufacturing assets along the assembly process. (The GA Paint Mix Room also has a low level of integration with the realty itself—it is not mounted in a concrete pit or on a concrete slab, requires no special foundation, and needs no trenches connected to it.) As another example, the Opticell stands apart from the assembly process, both geographically and functionally.

In *Michigan National Bank*, the court held that bank equipment was intended to be permanently installed because "the present use of the . . . buildings [was] dependent on the presence of" the equipment, and similarly, the equipment could not "be used unless [it was] affixed to a building or land" with which the equipment was "physically integrated." 293 N.W.2d at 627–28. The court applied the three-factor test to "bank vault doors, night depository equipment, drive-up teller window equipment and remote transaction systems," looking to how the assets fit together in an integrated fashion to allow the realty, and particularly the drive-up teller structure, to function as a bank. *Id.* at 627. The court explained:

> The night depository equipment, drive-up window equipment and the vault doors are all cemented into place. Once installed, they are integrated with and become part of the wall in which they are mounted. The remote transaction units are also physically integrated with the land and the buildings. Such a unit consists of a roof-type canopy supported by pillars which extends from the building wall or roof over the customer unit. The customer unit is mounted with steel bolts to a specially constructed concrete island. A pneumatic tube system runs either up into the canopy or down into the ground and then into the building.

Id. at 627–28. The court emphasized the level of integration of the assets into the land, but this analysis also highlights the importance of how the assets themselves fit together. In the case of the drive-up teller structure, the roof-type canopy covers the customer unit, which is mounted to a special concrete island where pneumatic tubing connects the customer unit with the bank itself. *Id.* These assets interlocked together in a specific way that demonstrated a high level of integration, particularly where some of the assets were affixed with concrete, or otherwise physically integrated into the land. Naturally, this demonstrates an intent that each individual asset remain in place as permanently affixed to the realty, allowing the realty to function for its intended purpose.

When a particular asset is closely integrated, assimilated, or interlocked with other assets, the notion that the asset was intended to remain in place is reinforced. On the other hand, where an asset stands apart from other assets and the assembly line processes generally, and has a lower level of integration and assimilation, there is less of an apparent intent for an asset to remain in place indefinitely. A low-integration asset can be more easily moved without disruption of the assembly process.

C. Where There is a Deficiency in Objective Evidence Regarding Assets That are No Longer In Place, Proving that an Asset is a Fixture Will Be Difficult

"This Court examines the objective visible facts to determine whether intention to make the article a permanent accession to the realty exists." *Wayne Cty.*, 563 N.W.2d at 680 (citation omitted). So where objective evidence is lacking, it becomes increasingly difficult to find that an asset is a fixture, particularly given that the burden of proof rests on the party asserting that an asset is a fixture. Though a court may "infer" the intention of the party installing an asset from things like "nature, mode of attachment, [and] purpose for which used," "[a]ny doubt must be

resolved in favor of finding the item personal property." *Gen. Elec. Co.*, 2001 WL 1647158, at *3.

As such, where there is a deficiency in objective evidence relating to an asset, for example, where an asset has been removed, as was the case with the components of the Courtyard Enclosure, meeting the burden of proof will be particularly difficult.

D. Preliminary Discussion

1. There is a Presumption of GM's Intent for Permanence

As noted above, the "installation" of an asset "by the owner of the land raises a presumption under Michigan law that the accession was intended to be permanent." *In re Johns-Manville Sales Corp.*, 88 F.2d at 521; *Cliff's Ridge*, 123 B.R. at 759; *Mahon Indus.*, 20 B.R. at 839. The Michigan Supreme Court has squarely recognized this presumption. *See, e.g.*, *Tyler* v. *Hayward*, 209 N.W. at 802 (holding that gasoline pump and scales annexed by owner of realty used as store and dwelling were fixtures; "[w]here the owner annexes them the presumption follows that he intended they should become realty").

During trial, the Avoidance Trust stipulated that "all buildings and all lands where each of the 40 Representative Assets were located were owned by Old GM at all relevant dates for this proceeding." Colleen Charles — the former executive director of GM's global financial shared serviced organization, with responsibility for GM's electronic fixed asset ledger, eFAST — credibly testified that GM's eFAST ledger establishes that Old GM likewise owned the 40 Representative Assets or, for leased assets, that Old GM owned whatever rights or interests General Motors has in those assets. (Trial Tr. (Charles) at 1568:14–24, 1599:15–1605:6; Charles Direct ¶ 18 & Ex. 7.)

Accordingly, because GM owned the land and buildings on which the Representative Assets were installed, for the assets located in Michigan where the presumption of an intent of

permanence applies, the Defendants are entitled to this presumption on the intent prong of the three-part fixture test.

2. Goesling's Movement of Assets is of Little Probative Value Here

Goesling undertook an analysis of how many and what types of assets were moved by GM to other GM plants. Goesling's movement analysis is set forth in PX22, and relies on his review of eFAST ledgers produced by GM showing the location of installed assets in June 2009, May 2010, and December 2015. (PX-218, PX-219, PX-366.) Goesling lists any asset that had a different location in 2010 or 2015 than it did in 2009 as having moved. (Trial Tr. (Goesling) at 2943:7–13; Goesling Direct ¶ 46.)

But as noted above, it is the intention of the owner at the time of installation that matters. *See, e.g.*, *Colton*, 255 N.W. at 434 (stating that "it was the intention of the [owner], when they purchased such articles" that controls); *Lord v. Detroit Sav. Bank*, 93 N.W. 1063, 1064 (Mich. 1903) ("If this property is part of the realty, it became so at the time it was annexed thereto."); *Grand Traverse*, 2017 WL 1908535, at *3 ("The relevant time is when the object was attached to the real property.") (citation omitted); *In re Joseph*, 450 B.R. at 694 (stating that "evidence about what Debtors may have believed and intended" subsequently when articles were removed "has no probative value in trying to show what Debtors believed and intended *several years earlier*, *when they affixed the disputed items* to the [real estate]") (emphasis added); *Morris*, 175 N.W. at 264 (stating that classification depends on "intent of the defendant when the articles were installed").

Moreover, the vast majority of the movements of assets that Goesling identified resulted from GM's bankruptcy and the dramatic decline in automotive sales in the period preceding the bankruptcy. (Stevens Direct ¶ 77.) Given that such a large number of assets movements occurred only in these extraordinary circumstances, Goesling's movement data supports the notion that

when GM installed its fixed manufacturing assets, GM assumed that those assets would remain in place for their useful lives. (Stevens Direct ¶¶ 87–89.)

Additionally, Goesling's data are often times misleading, and occasionally tended to state that certain assets were similar when often times they were not. Goesling himself acknowledged at trial that while he often speaks in terms of his movement analysis showing how many "assets" have moved at GM between 2009 and 2015, in fact, his analysis focuses on "line items" in GM's eFAST ledger. (Trial Tr. (Goesling) at 3293:9–15, 2960:23–2961:20.) He admitted that whenever he testifies that a certain number of "assets" moved, he is actually referring to "line items" that may aggregate into far fewer actual "assets." (*Id.* at 3293:9–15.)[16] In response to the Court's questions, Goesling acknowledged that there is no "chart or table that would allow someone else to attempt to replicate the exercise of [his] judgment" and he did not "have a list of criteria that [he] applied in making a determination whether something was similar or not." (*Id.* at 2967:12–2968:4.) This made it essentially impossible to determine with particularity how many assets of the same type or nature were actually moved within GM.

On the whole, given the problems with Goesling's movement analysis relating to the lack of clarity on the actual number of assets moved, and concerns about whether assets were actually grouped with other similar assets, the Court will consider, but give little weight to Goesling's movement analysis.

3. Goesling's Secondary Market Analysis is also of Little Probative Value

For largely the same reasons that Goesling's movement analysis is unpersuasive, Goesling's secondary market anaylsis is also not particularly helpful to the Court.

[16] As just one example, Max Miller explained that the 88 stamping "assets" that Mr. Goesling identified as having moved actually correspond to just 14 stamping presses. (Miller Direct ¶ 60; DX-100.)

Goesling asserts that the existence of a secondary market for a particular type of asset means that GM must not have intended to install any asset of that type permanently. (Goesling Direct ¶¶ 48–49.)

But just as many asset movements took place in the unusual context of GM's prebankruptcy skid, so too were many of the assets sold on the secondary market. This sales data therefore arises from a very unusual period in GM's history — the 2006–2010 time period, with its many plant closures.

Additionally, as is the case with Goesling's movement analysis, Goesling tended to state that certain assets were similar when often times they were not, and Goesling's figures represented line items, and not necessarily actual assets. This rendered Goesling's data unreliable.

But more fundamentally, the existence of a secondary market is largely ancillary to the intent of GM at the time of the installation of a particular asset. The simple fact that a secondary market may exist for a particular asset says very little, if anything, about the intent of GM when it purchased and installed an asset. And the case law only reinforces this notion. For example, the milling machine in *Cincinnati Insurance* was bought secondhand on the secondary market, yet it was held to be a fixture. 166 F. Supp. 2d at 1181–82. And, perhaps surprisingly, the chairlift in *Cliff's Ridge* was secondhand as well but was held to be a fixture. 123 B.R. at 756. And there was certainly a secondary market for the gas ranges in *Peninsular Stove Co. v. Young*, but they too were held to be fixtures. 226 N.W. 225, 226 (Mich. 1929).

And surely the existence of a secondary market alone is not enough to overcome the presumption that the owner of property that installs an asset is presumed to intend the asset to remain in place permanently.

4. Classification of Assets as Personal Property for Tax Purposes is of Little Probative Value

The Plaintiff also emphasizes that many of the Representative Assets were classified by Old GM as "personal property," arguing that this contravenes any intention for an item to remain in place permanently. Plaintiff prepared a chart showing that essentially all of the Representative Assets were classified by GM, for tax purposes, as personal property. (*See* Plaintiff's Post-Trial Brief at 105–06.) Only the GA Pits & Trenches, Process Waste ELP (both of which the Plaintiff concedes are fixtures), the Weld Bus Ducts, and Courtyard Enclosure were classified as real property. (*Id.*)

But in lien disputes and elsewhere, courts have recognized that a company's property tax and accounting classifications are of limited, if any, use with respect to the three-part fixture test. In *Johns-Manville*, for example, the Sixth Circuit gave "little weight" under Michigan fixture law to a company's classification of assets for depreciation purposes. 88 F.2d at 522. Likewise, under Ohio fixture law, the Sixth Circuit again inferred no "great consequence" where a "company's books and its tax returns [had] listed [machinery] as personalty." *Willis v. Beeler*, 90 F.2d 538, 541 (6th Cir. 1937); *see also Roberts* v. *Smithers*, 468 N.W.2d 32, *1 (Wis. Ct. App. 1990) (stating that whether assets "would have been included on income tax depreciation schedules" was "not the test"); *Vivid, Inc.* v. *Fiedler*, 497 N.W.2d 153, 158-59 (Wis. Ct. App. 1993), *aff'd as modified and remanded*, 512 N.W.2d 771 (Wis. 1994) (concluding that signs that "have never been taxed as real property" were nonetheless fixtures, because the "assessment and taxing officials' intent is not the intent of the owner of the property").

The Court will therefore consider the fact that nearly all of the Representative Assets were classified as personal property for tax purposes, but gives the classification "little weight" when viewed alongside all of the other objective evidence presented in this case.

VII. CONCLUSIONS OF LAW REGARDING THE 40 REPRESENTATIVE ASSETS

A. The Presses

1. The Leased Presses Are Not Fixtures

The AA Transfer Press and the B3-5 Transfer Press (together, the "Leased Presses") are leased, not owned, by GM and the Defendants concede that they therefore hold no security interest in them. (JPTO ¶ 66.) In both leases, Old GM agreed that the Leased Presses would "retain the character of personal property" and "shall not become part of any real property." (PX-220 at 38; PX-283 at 41.) Nevertheless, the Defendants argue that the Leased Presses are fixtures, no doubt because there are numerous similar presses among the 200,000 remaining assets still to be resolved. The Defendants argue that because the Leased Presses were installed before the leases were entered into, the leases—in which GM agreed that the Leased Presses would remain personal property—have no bearing on GM's intent at the time of installation. The Court disagrees.

The B3-5 Transfer Press was put into service in December 2003—the same month that the sale/leaseback provision was entered into. (PX-220 at 38 (dated December 10, 2003).) The AA Transfer Press was put into service in September 2003 and the sale/leaseback provision was entered into under three months later, also in December 2003. (PX-283 at 41 (dated December 23, 2003).) Miller testified that "the planning for installation of a press . . . begins several years before the in-service dates." (Miller Direct ¶ 68.) It is hard for the Court to believe that a sophisticated financial agreement such as the sale/leaseback agreements would not also be negotiated and drafted during that same timeframe. In the context of a years-long installation process, the Court finds that the execution of the sale/leaseback agreement within days or even a few months of the press's installation is a strong indicator of GM's intent at the time of installation. The Court can think of few more "objective, visible" indicators of intent than a

nearly contemporaneous agreement to maintain the asset as personal property. *See Mich. Nat'l Bank*, 293 N.W.2d at 627. While other factors may weigh in favor of a finding of intent to make the asset a permanent accession to the realty (as discussed below regarding the other three presses), those factors are trumped by the plain, objective language of the leases.

Accordingly, the intent prong of the Michigan three-part fixture test has not been met for either the AA Transfer Press or the B3-5 Transfer Press, and the Court finds that Representative Assets Nos. 32 and 33 are not fixtures. The Court notes that, but for the leases, the Leased Presses share substantially the same characteristics as the remaining three presses the Court rules below are fixtures.

2. The Remaining Three Presses are Fixtures

Representative Assets Nos. 29, 30, and 31 are not subject to leases, and the Plaintiff agrees that all three presses are attached to the realty. (*See* Goesling Direct ¶ 60.)

The adaptation prong of the three-part test has clearly been met for all three presses. All of the presses were installed in 16- to 20-foot pits excavated in the concrete foundations of the plants in which they were located—part of an installation process that took years to plan and execute. (Miller Direct ¶ 68.) Special concrete pillars supporting the presses were anchored to the bedrock beneath the plants. All of the presses were served by hard utility and piping connections integrated with the rest of the facilities, along with supporting assets such as overhead cranes and underground conveyors. (*Id.* ¶¶ 109, 125, 138.)

The Court also finds that it was GM's intent at the time of installation of the non-leased presses that they would become a permanent accession to the realty. Importantly, all three presses were vital to the operations of the plants in which they were located, and were integrated with the rest of the assembly lines of which they were a part. All of the presses were extremely large and extremely heavy: the TP-14 Transfer Press and Danly Press both weighed over 700

tons and stood three stories tall, while the GG-1 Transfer Press weighed over 1,100 tons and stood three stories tall. (*Id.* ¶¶ 85, 103, 133.) It took years to plan their installation and create the custom foundations necessary to run the presses, and would take months to remove them. (*See* JPTO ¶¶ 103–04 (TP-14 Transfer Press and Danly Press both took at least three months to remove).) Removal of a press would leave behind its 16- to 20-foot foundation pit. (*See, e.g.*, Miller Direct ¶ 110 (describing "the large pit that would be left behind" if the Danly Press were removed).) It is unreasonable to suggest, as Goesling does, that such pits are not "damage" to the realty: the facility cannot be repurposed until the pit is filled in and a new foundation is poured. (*See id.* (noting that the floor would need to be "healed" before the area could be used).)

The Court has considered the Plaintiff's arguments regarding the Danly Press, and comes to the same conclusion as the other non-leased presses. The Danly Press was originally put into service in October 1980 at the GM Indianapolis stamping plant, was idled in place 23 years later when the press line was taken out of production because of a design change, and was moved to LDT in 2003. (JPTO ¶ 104; Miller Direct ¶¶ 112–13; Trial Tr. (Miller) at 1127:13–28:22.) The combination of the idling of the press line at the GM Indianapolis plant, and the opening of the LDT plant, created an "extraordinary situation" in which the rare movement of a press made economic sense. (Miller Direct ¶ 114.) It took three to six months to remove the Danly Press from the GM Indianapolis plant and prepare it for shipment, and after it was removed GM needed to repair the damage to the facility's floor. (Trial Tr. (Miller) at 1128:23–30:7.) GM then excavated a pit for the Danly Press into the floor at LDT. (*Id.* at 1130:24–31:12.) The cost, time, and effort to move the Danly Press and reinstall it at LDT weigh in favor of GM's intent for permanence, not against. The Court is also convinced that the Danly Press is an integral part of the production line at LDT. The Danly Press is a "tryout press," used to validate large dies for

the production presses. If the Danly Press were removed, GM would have to take a production press offline to test dies, causing significant disruption. (Miller Direct ¶ 116; Trial Tr. (Miller) at 1126:4–24.)

B. The Conveyor Systems

Nine of the forty Representative Assets are conveyors or conveyor systems. Warren Transmission houses the Power Zone Roller Conveyor (Representative Asset No. 3) and the Button Up and Test Conveyor (Representative Asset No. 35). Lansing Delta Township houses the Paint Dip Conveyor (Representative Asset No. 6), the Skid Conveyor (Representative Asset No. 16), the P&F Conveyor (Representative Asset No. 17), the Wheel & Tire Delivery Conveyor (Representative Asset No. 20), the Skillet Conveyor System (Representative Asset No. 21), and the Vertical Adjusting Carriers (Representative Asset No. 18). The Defiance Foundry houses the Core Delivery Conveyor (Representative Asset No. 26).

1. The Modularity of the Conveyor Systems Does Not Suggest that the Conveyors are Not Fixtures

With respect to the conveyor assets, the Plaintiff relies heavily on the argument that the conveyor systems are comprised of individual segments that are delivered separately to a facility, then assembled on site to fit the specifications needed to run the conveyor system in conjunction with other assets. Specifically, the Plaintiff argues that this "modularity" makes removal of the conveyors easier, rendering them less "permanent." (*See* Plaintiff's Post-Trial Brief ¶ 661 ("The sectional/modular nature of the conveying equipment . . . and the methods of attachment all allow for removal of the asset without damage to the building or the equipment.")).

The Court finds this argument unpersuasive. The conveyor systems are hundreds of feet long, and wind throughout the facilities, often ascending and descending to different floors. Due to the size, weight, and vast dimensions of so many of these conveyors, it would be impossible to

assemble them entirely prior to delivery in GM's plant; they are simply too large to be transported by road or rail to GM's facilities. (Stevens Direct ¶ 132.) It would be wholly impossible to deliver such a conveyor system already intact, and the modular nature of the conveyors is necessary for installation, and says very little, if anything, about the intent of GM regarding the permanence of the conveyor assets.

2. The Conveyors are Attached to the Realty

The parties agree that the Skid Conveyor (Representative Asset No. 16), the P&F Conveyor (Representative Asset No. 17), the Paint Dip Conveyor (Representative Asset No. 6) the Wheel & Tire Delivery Conveyor (Representative Asset No. 20), the Skillet Conveyor System (Representative Asset No. 21), the Core Delivery Conveyor (Representative Asset No. 26), the Power Zone Roller Conveyor (Representative Asset No. 3), the Button Up and Test Conveyor (Representative Asset No. 35) are all attached to the realty. (Goesling Direct, Ex. A at 344.)

The Plaintiff maintains that the Vertical Adjusting Carriers (Representative Asset No. 18) at the Lansing Facilities is not attached to the realty as the carriers themselves are not permanently affixed to the building, but instead ride along the top of a rail and are connected to it by gravity. (Trial Tr. (Stevens) at 165:18–167:23; Goesling Direct ¶ 115.) The rail for the Vertical Adjusting Carriers is attached to white steel beams within the facility that is in turn bolted to the building. (Trial Tr. (Stevens) at 165:18–167:23; Goesling Direct ¶ 118.)

But even "slight" physical attachment can suffice. *Wayne Cty.*, 563 N.W.2d at 678; *see also, e.g.*, *In re Joseph*, 450 B.R. at 692 (mailbox hanging on two screws was attached to house). Assets can be constructively attached even if not directly attached to the realty if they are "part of, or accessory to, articles which are so annexed." *Wayne Cty.*, 563 N.W.2d at 680 (citation

omitted). Put another way, assets are deemed "constructively annexed" if "their removal from the realty would impair both their value and the value of the realty." *Id.* at 679.

The Vertical Adjusting Carriers are constructively attached because they are plainly "part of" the vertical adjusting carrier system, which includes the rails on which the carriers rest, and the removal of the carriers would completely halt the flow of production in the assembly plant.

Accordingly, each of the conveyor systems is attached to the realty.

3. The Conveyors are Highly Integrated into the Assembly Process

Naturally, given that these conveyor systems move parts and components along the production line and throughout a facility, driving the production process forward, these systems are highly integrated into the production process with many other assets. And to be sure, production would cease altogether if any of the conveyor assets were removed from the facility. For example, Mr. Stevens repeatedly oversaw the work of teams who had to specially design equipment layout and conveyors to fit within a particular space or column configuration (or had to specially design a particular space to fit the equipment and conveyors). (Stevens Direct ¶ 39.) Many conveyors must run for thousands of feet to allow multiple repeated operations to be performed in a complex, highly choreographed assembly process. (*Id.*) And the layout of the conveyors for the 6-speed transmission line at Warren Transmission was customized specifically for the tight layout of the renovated Warren building. (Trial Tr. (Deeds) at 732:23–733:7; Deeds Direct ¶¶ 45, 60, 178.) The conveyor assets therefore demonstrate an exceptionally high level of integration and interconnection with other manufacturing assets.

Courts have held that assets somewhat similar to the conveyor systems at issue here are fixtures. The Bankruptcy Court in the Western District of Michigan held that a chairlift on a ski hill was a fixture when the chairlift was attached to the realty by concrete and bolts and specially engineered to the use of the realty. *See Cliff's Ridge*, 123 B.R. at 759–60. Like a conveyor belt,

a chair lift is a mechanical system operating on a straight or tilted plane, with the essential purpose of moving physical objects.

The *Cliff's Ridge* court determined that the chairlift fulfilled the first element of the test, because "[t]he chairlift was attached to the realty. Concrete pads were poured in the realty prior to the erection of the chairlift. Towers were then bolted to the concrete pads, cables were strung, and about 100 chairs were attached to the cables." *Id.* at 759. The court also held that the second element of the fixture test was fulfilled, noting that "the chairlift was engineered to be erected on the realty and the chairlift was specially modified to be attached to the realty." *Id.* ("The court finds the chairlift was adapted to the ski hill real property for its use and purposes.") (internal citation omitted). The *Cliff's Ridge* court determined that the third element was fulfilled because "[i]n two financing statements dated December 14 and December 15, 1982, filed by First National, it is stated, 'The goods are to become fixtures on 11–24–82.'" *Cliff's Ridge*, 123 B.R. at 759. The court further noted that, "[u]nder Michigan law, attachments to realty to facilitate its use become part of the realty and, if done by the owner, are presumed to be permanent." *Id.* (citation omitted).

Regarding the adaptation element, like the chairlift in *Cliff's Ridge*, GM's conveyors in Michigan were designed and engineered for the realty on which they were installed. *See Cliff's Ridge*, 123 B.R. at 756 (noting that "[t]he chairlift was specially engineered and modified for a slope on the ski hill real property."). As noted above, these conveyors wind and curve throughout the assets of the facilities in which they reside, and are absolutely critical to the integrated manufacturing processes. For example, defense expert Deeds testified that Asset No. 3 "is a critical component of the transmission housing line at Warren Transmission," and "[Asset No. 3's] layout was driven by the specific dimensions of the machining area at the Warren

Transmission facility, with a custom layout." (Deeds Direct ¶¶ 55, 60.) Deeds also testified that Asset No. 35 "is a necessary, customized component of the final assembly line for completed transmissions . . . and was also specifically designed for the layout of Warren Transmission's assembly area," with a glass wall built around the Asset "to separate the assembly building process from the shipping dock." (*Id.* ¶ 178.) Defense expert Steven Topping testified that Asset No. 6 "is a necessary part of the ELPO Process, which is a critical step in the paint-shop process," and that "the facility was clearly customized to support this Conveyor." (Topping Direct ¶ 47.) This in particular emphasizes the nature in which the realty and asset are integrated and adapted.

This goes to demonstrate that each of the conveyors are essential to driving the production process forward, and are "a necessary or at least a useful adjunct to the realty, considering the purposes to which the latter is devoted." *Wayne Cty.*, 563 N.W.2d at 680. The adaptation element for each of the conveyors is therefore satisfied.

And because of the extremely high level of integration that the conveyor systems have with other assets and the realty itself, as well as the high level of attachment that most of these conveyors have with the realty (in some cases, by thousands of bolts), there is strong evidence that GM intended these conveyors to remain in place for their useful lives such that the production process would continue. The presumption that GM intended for the conveyors to remain in place permanently has not been overcome.

Accordingly, the Court finds that each of the conveyor assets are fixtures.

C. The Robots

The robots present unique challenges for the Court. The robots are much smaller than the presses and machining assets. They are also relatively easy to remove (Trial Tr. (Thomas) at 837:7–838:17), and there is a robust secondary market for these types of robots. (*See* Sofikitis

Dep. Tr. at 97:1–4; Levy Dep. Tr. at 60:18–61:1.) And additionally, robots are reprogrammable, rendering them more versatile than some of the other assets. (Trial Tr. (Thomas) at 842:25–843:4.)

But as discussed below, some of the robots are highly interconnected and integrated with other assets along the manufacturing process. And each of these robots serves an essential function, without which the production process could not continue.

1. Representative Asset Nos. 39 and 12

The CB 91 Robot at the Defiance Foundry unloads engine cores from the CB 91 core making machine. The asset delivers each core to several work stations before delivering a complete core sub-assembly to a conveyor for further processing. The sub-assemblies are used later in the iron casting process at Powertrain Defiance. The asset was put into service in March 2005. (JPTO ¶ 112.) The Body Shop Robot LAZN-150R1 at the Lansing Facilities applies spot welds to join together body panels into a complete vehicle body outer frame.

The parties agree that both of these robots are attached to the realty (Goesling Direct, Ex. A at 344)—the CB 91 Robot, on account of the lag bolts affixing the assets steel plate mount to the floor (Goesling Direct ¶ 346; *see also* Trial Tr. (Thomas) at 834:19–835:14; 838:18–24), and the body shop robot on account of the bolts affixing it to the overhead structure to which it is attached. (Goesling Direct ¶¶ 146–47.)

Moreover, both of these robots are highly interconnected with other assets, and serve critical functions along the manufacturing process. The body shop robot, for example, works in conjunction with a number of other robotic arms to perform welding operations as components are shuffled past on a conveyor system. With all of these welding robots working together with conveyor systems and other manufacturing processes, the high level of integration among these

assets and the realty demonstrate an intent on the part of GM that this complex formulation of assets remain in place permanently.

Under Michigan's adaptation prong, the body shop robot is used "in the regular course of its business," and integral to the LDT plant, and the purpose for which it was built. *Cincinnati Ins.,* 166 F. Supp. 2d at 1180. And given the presumption that this asset was installed with an intent to remain permanently, coupled with the fact that the LDT operations could not go forward without it, the intent prong is likewise satisfied.

The body shop robot is therefore a fixture, as all three prongs are satisfied.

The CB 91 Robot likewise is highly interconnected with other assets. The CB 91 first removes the core from the core machine, then transports it to a "definning stand" in the cell that removes residual sand from the core, then moves the core to a specialized "turntable" where operators assemble two cores, and once assembly is complete, the Robot picks up the assembled cores and transports them to an unload dip conveyor that takes the cores to a dip tank for coating in advance of casting. (Thomas Direct ¶ 92 & Ex. A at 27; JX-1588; JX-1592; *see also* Trial Tr. (Thomas) at 801:3–23.)

Removing the CB 91 from this production flow would halt the entire process, rendering the other assets in the cell useless. And given that the realty in which this asset is located is a foundry, designed specifically for producing parts for use in automobiles, the adaption prong under Ohio law is met as this robot is "essential to the use or purpose of the realty" because the entire line had been "integrated into the factory." *Mid-Ohio Mechanical, Inc.*, 862 N.E.2d at 547. And for the same reasons that GM intended for the body shop to remain in place, so too does the evidence demonstrate that GM intended for the CB 91 Robot to remain in place for its useful life.

Accordingly, because all three prongs of the fixture test are met for the CB 91 Robot and the body shop robot, the Court concludes that they are fixtures.

2. Representative Asset No. 22

The Fanuc M-710IB/70T Robot at Warren Transmission is a Fanuc robot mounted on a gantry rail. The asset is used to move gears within a subassembly process before the finished gears are sent to the transmission assembly line.

The parties agree that this asset is attached to the realty (Goesling Direct, Ex. A at 344): the Gantry's metal structure to which the robot is attached is supported by three freestanding steel tube columns, each with a floor-mounting plate that is attached to the floor with lag bolts. (Goesling Direct ¶ 280.) The three columns support the approximately 50-foot-long horizontal Gantry rail using right angle brackets and various Allen bolts. (*Id.*; *see also* JX-1309.)

Though the Gantry is encased in safety fencing and interlocks, the Gantry has an extremely high level of connectivity and integration with the other assets in the transfer gear machining area. The gantry rail itself enables the attached Gantry robot to: (a) pick up transmission gears from a specifically located unfinished heat-treated gear delivery area; (b) transport each gear to the start of the powered conveyor that will take the gear through Warren Transmission's automated finish gear grinding process; and (c) transport each finished gear back into a separate pallet storage area, where it will be stored before being delivered to the final assembly line. (Deeds Direct ¶ 93; Trial Tr. (Deeds) at 522:10-524:10; DX1009 (video of nearly identical gantry robot); Trial Tr. (Deeds) 519:5-23 (testimony about DX1009).) The transmission gear finishing cell includes one gear press, three CNC grinders, one washer, and one hardness check quality control station. (Deeds Direct ¶ 93.) Without the Gantry, this cell of assets, all located specifically to interact with one another, would be rendered useless. The Gantry, sitting in this amalgamation of other assets performing its essential function, is clearly

"adapted to the business for which the building was erected," *Smith*, 55 N.W. at 979, and therefore the adaptation element is met.

The high level of integration and close interaction with other assets, along with the fact that without the Gantry, this production cell "could not be operated," *Dehring* v. *Beck* 110 N.W. 56, 57 (Mich. 1906), meets the intent prong of the fixture test.

Because all three elements of the fixture test are met for the Gantry, the Court finds that this asset is a fixture.[17]

D. Individual Assets Located Off the Production Line

1. Representative Asset No. 8

The GA Paint Mix Room at the Lansing Facilities is a self-contained paint mixing room located inside the general assembly area used to mix small batches of paint for minor paint repairs to vehicle bodies at the end of the final assembly line.

The GA Paint Mix Room is relatively small, as compared to some of the other Representative Assets; it weights roughly 2,000 pounds and is bolted to the floor. (Topping Direct ¶ 97; Trial Tr.(Topping) at 998:19–21.) The Defendants make a strong case that this asset is constructively attached to the realty.

But the intent prong is not met here, despite the presumption. The GA Paint Mix Room is located off the production line, and is not integrated with other assets in the way that many of the other Representatives Assets are. The GA Paint Mix Room stands apart from the assembly process, providing touch-ups and minor paint repairs to vehicles that have already traveled through the assembly process. It is not bolted to adjacent conveyor systems; it is not positioned in the heart

[17] Defendants believe that the associated safety fencing and interlocks were included in GM's fixed asset ledger as part of this asset; Plaintiff believes that the safety fencing was not included in GM's fixed asset ledger as part of this asset. The Court concludes that the Defendants failed to carry their burden of proof that the safety fencing is a fixture.

of the assembly line to receive or send forward any component in the manufacturing process; and its removal would not affect or hinder the process of any other assets.

Furthermore, GM has previously relocated one similar paint mix room showing that movement is possible and relatively swift. (*See* PX-0022C (Asset #8-0001); Goesling Direct ¶ 107.) And if the GenGA Paint Mix Room were removed, paint would simply have to be mixed in the paint shop. (Trial Tr. (Topping) at 947:10–16.) The actual production process would continue.

The GA Paint Mix Room's extremely low level of integration renders the Court unable to find that the intent prong is met. The Court concludes, therefore, that on the whole, the Defendants have failed to meet their burden in establishing that this asset is a fixture.

2. Representative Asset No. 10

The Opticell at the Lansing Facilities is a robotic measuring system that uses white light scanning technology to check a sampling of the finished stamped metal panels for quality assurance purposes. Though this asset is a robot, the analysis relating to this asset is included with other assets located off the production line with lower levels of integration with other assets.

The parties agree that this asset is attached to the realty, primarily by bolts. The robot itself is bolted to a pedestal, which is in turn secured to a trolley with Allen bolts; the trolley is not itself connected to the building and moves freely along a slide system metal rail that is lag bolted to the floor. (Goesling Direct ¶ 90; JX-1105.)

But this asset has a low level of integration with other assets in the stamping process. The Opticell serves a quality control function, and need not be located in any specific location in connection with other assets as long as it is able to perform its measuring functions on the components stamped by the AA and B3-5 Transfer Presses, and other production presses. And to be sure, in 2016, GM relocated the Opticell within the Lansing Regional Stamping facility as part of the expansion of the body shop at Lansing Delta Township Assembly. (Miller Direct ¶

158; Trial Tr. (Stevens) at 425:6–17; Goesling Direct ¶ 91.) The relocation took place over a weekend, and appears to have been relatively undisruptive. (Trial Tr. (Miller) at 1223:20–1225:3.) The fact that this particular asset could be relocated so swiftly, and without serious disruption to the production process, weighs against finding that it is a fixture. The asset is surrounded by safety fencing, light screens, and pressure mats, but these components and the asset itself are not attached or physically interconnected with any surrounding assets along the production line.

Accordingly, for much the same reasons that the GA Paint Mix Room is not a fixture, so too does the Opticell fail to meet the intent element of the fixture test. [18]

3. Representative Asset No. 19

The body shop CMM at the Lansing Facilities was used to take precise measurements of auto bodies manufactured in the body shop for quality purposes.

Importantly, the CMM was mounted in a concrete-lined pit with the surface plate flush with the building floor. (Goesling Direct ¶ 165.) This serves as strong evidence both with respect to the attachment element, but also with respect to the intent element, given the permanent nature of the concrete pit on which the asset was installed.

At the same time, however, this asset was located in a room separate and apart from the assembly process, and had a low level of integration with other assets. And increasingly, offline inspection equipment, such as this CMM, is being replaced by robots, similar to the OptiCell (Representative Asset No. 10), that are capable of performing quality control without taking the

[18] The Defendants maintain that the safety fencing surrounding the Opticell is a fixture, but the Court concludes that the Defendants have failed to meet their burden with respect to this asset, and the safety fencing surrounding the asset therefore also is not a fixture.

vehicle bodies off the assembly line. (Goesling Direct ¶ 168.) This renders the determination on the CMM a closer call.

But under the three-part fixture test, the annexation and intent elements are met, given the permanence of the assets attachment, together with the presumption that, as the realty's owner, GM intended for the asset to remain a permanent accession to the realty.

Moreover, the asset was "adapted" to LDT facility because it was used by GM "in the regular course of its business" manufacturing automobiles, and the asset was designed, installed, and used to that end. *Cincinnati Ins.*, 166 F. Supp. 2d at 1180.

Because it satisfies the three-part fixture test, the Court finds that Representative Asset No. 19 is a fixture.

E. The Warren Transmission Assets

1. Representative Asset No. 14

The Leak Test Machine at Warren Transmission tests for fluid leaks in transmission housings after they have been manufactured and before they are sent to the transmission assembly line.

The parties agree that the attachment prong is satisfied. The asset is bolted to the floor, and connected to a compressed air distribution system and high-voltage power supply.

Regarding adaptation, the Leak Test Machine was custom-designed to test leaks on a 6-speed housing at Warren Transmission. (Deeds Direct ¶ 75.) Moreover, the facility was adapted to accommodate the Leak Test Machine: high-voltage power, compressed air, task lighting, and communication lines were routed through the building to serve this asset, and numerous other utilities were routed to the specific locations of other assets that make up the integrated transmission housing line of which the Leak Test Machine is a critical part. (Deeds Direct ¶ 75 & Ex. A at 22.) The Leak Test Machine was customized to its place in the specific layout at

Warren so that the conveyors on the Leak Test Machine would be aligned precisely with the height, width, and location of the conveyors feeding into and leading out of it. (Deeds Direct ¶ 72.) This asset is an integral part of the assembly line process, demonstrates a high level of integration with the realty and with surrounding assets, and is a necessary component for producing transmission parts at Warren.

With respect to the intent element, the Leak Test Machine is enormous, standing at 30 feet by 25 feet by 12 feet, and weighs roughly 30,000 pounds. (Deeds Direct, Ex. A at 22.) It is surrounded by the other machines in its module, making it even more impractical to imagine that GM ever intended anything but for this asset to remain in place permanently.

Because it satisfies the three-part fixture test, the Court finds that Representative Asset No. 14 is a fixture.

2. Representative Asset No. 24

The Base Shaping Machine at Warren Transmission is a CNC machine that is part of the process of machining or cutting steel blanks into transfer gears that are used in GM transmissions.

The Plaintiff argues that this asset is not attached to the realty, but assets may be "constructively attached by [their] weight" alone. *Velmer*, 424 N.W.2d at 775. In *Velmer*, the Michigan Supreme Court analysed whether a 1,000-pound milling machine used in a shop classroom was "part of the [school] building." *Id*. at 771. A lower court had held that it was not because the machine was "not bolted or permanently affixed to the floor." *Id*. But the Michigan Supreme Court reversed, acknowledging the concept of "constructive" annexation. *Id*. at 775. The Base Shaping Machine's enormous weight of 30,000 pounds renders it constructively attached to the premises. Moreover, in addition to the plant utilities attached to the asset through hard piping and hard conduit, the asset is bolted to the conveyors that feed it, as well as to an

electrical supply transformer and electrical control cabinets, all of which are bolted to the floor in turn. Accordingly, the attachment prong is satisfied.

Regarding the adaptation element, the entire purpose of the Warren Transmission facility—its *rasion d'etre*—is to produce transmissions for use in GM cars, and the Base Shaping Machine is most certainly "a necessary or at least a useful adjunct to the realty, considering the purposes to which the latter is devoted." *Wayne Cty*, 563 N.W.2d at 680 (citation omitted). The asset is plainly integral to the integrated assembly and production process that takes place at the facility. This adaptation element is therefore met.

And because "[i]ntent may be inferred from the nature of the article affixed, the purpose for which it was affixed, and the manner of annexation," *id.* at 680, with the Base Shaping Machine, GM's intent to make the asset a permanent accession to the realty is apparent, in part, given that the purpose of this asset is absolutely essential to creating the gears used in GM transmissions. The asset is also highly integrated into the assembly process and the assets surrounding it. For example, conveyors loading and unloading parts are bolted to the Base Shaping Machine. (JX-1353; Goesling Direct ¶ 297.) As such, removing the asset would not only involve lifting the colossal weight of the asset, but also unbolting the conveyors that are attached to it. With respect to the intent element, the Trust has failed to rebut the presumption that GM, as the owner of the realty, intended for this asset to remain in place permanently.

Because all three prongs of the fixture test are met, the Court finds that Representative Asset No. 24 is a fixture.

3. Representative Asset No. 25

The Liebherr Hobb Machine at Warren Transmission is part of the process of machining or cutting steel blanks into transmission gears that are used in GM transmissions. The asset has a

number of similarities to the Base Shaping Machine, as both are used to manufacture gears in the transfer gear area of the 6-speed line at Warren Transmission.

As with the Base Shaping Machine, the Liebherr Hobb is attached by its great weight (33,000 pounds) and size, and is connected via hard piping to the building's utility systems.

Regarding adaptation, similar to how the Base Shaping Machine was an integral component of the Warren Transmission facility, so too is the Liebherr Hobb, also performing essential functions that allow Warren to operate as intended.

Again, as with the Base Shaping Machine, the Trust has failed to rebut the presumption of intent (this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM) as it is essential to creating the gears used in GM transmissions, and is highly integrated into the assembly process and the assets surrounding it, attached through extensive connections to plant utility systems, and would have been extremely expensive to install and remove.

Because all three prongs of the fixture test are met, the Court finds that Representative Asset No. 25 is a fixture.

4. Representative Asset No. 36

The Helical Broaching Equipment is a type of CNC machine used to cut gear teeth on a steel gear blank for use in GM transmissions.

The Helical Broach weighs roughly 90,000 pounds, and is mounted on four heavy duty isolation pads, which are bolted to the machine base and rest in a drip pan that is sitting on the building floor. (JX-1541; Goesling Direct ¶ 302; Trial Tr. (Deeds) at 629:4–631:10.) Three six foot high self-supporting operator platforms are attached to the Helical Broach with bolts. (Goesling Direct ¶ 302.) These facts demonstrate that the asset is attached to the realty, both actually and constructively.

With respect to the adaptation element, as with the Base Shaping Machine and the Liebherr Hobb Machine, the Helical Broaching Equipment is essential to the transmission operations at Warren, and indeed, operations would cease without the asset. It is most certainly "a necessary or at least a useful adjunct to the realty, considering the purposes to which the latter is devoted." *Wayne Cty*, 563 N.W.2d at 680 (citation omitted). And to adapt the realty to the asset, GM poured a 12-inch concrete floor to hold this enormous asset, and routed hard electrical conduit, chilled water piping and waste water utility piping through the building to the specific location of this asset. The adaptation element is therefore met.

Regarding the intent element, as with the Base Shaping Machine, because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Helical Broach for its useful life can be inferred from the degree of the Helical Broach's attachment and adaptation (*e.g.*, the hard conduit running to the asset) and from the objective evidence that the asset is massive and was difficult to install, and would be difficult to remove and relocate.

Because all three elements of the fixture test are satisfied, the Court finds that the Helical Broach is a fixture.

5. Representative Asset No. 23

The Aluminum Machining System at Warren Transmission is a machining system that is connected to CNC machines. The asset includes the piping that circulates clean, temperature controlled coolant to the CNC machines and also removes metal chips generated during the CNC milling process from the coolant so the coolant can be recirculated to the CNC machining centers.

The System is attached to the realty by virtue of the fact that it weighs 800,000 pounds, and is 75 feet long, 60 feet wide, and 25 feet tall. The standard for constructive attachment is plainly met, and indeed, the parties agree the asset is attached to the realty.

The machine operates in conjunction with 61 other assets, including 60 CNCs, and is therefore highly integrated into the manufacturing process at Warren, and absolutely critical to the 6-speed line. (Deeds Direct ¶ 82; JX-1330; JX-1331; JX-1345.) The Warren Transmission realty is also adapted to the System, with a reinforced twelve-inch floor and sixteen-inch-wide by twelve-inch-deep trenches built into the floor to capture any spills. Accordingly, the adaptation element is met.

Plaintiff agrees with Defendants that the pits, trenches, and the piping that are components of Representative Asset No. 23 are fixtures. These portions of the asset were installed permanently. (Goesling Direct ¶ 291.) The trenches, which are integrated into the floor slab, would be destroyed as part of removal and would leave extensive unlined holes, constituting damage to the building. (*Id.*) And the fact that the asset was installed on these trenches also indicates that the asset as well was intended to remain permanently. The assets high level of integration with both the realty and surrounding assets further evidence GM's intent for this asset to become a permanent accession to the realty. But perhaps more fundamentally, this assets gargantuan size provides a sufficient basis to determine that GM intended it to remain in place permanently. *Cincinnati Ins.*, 166 F. Supp. 2d at 1180 (inferring "intent to make permanent" from "the fact that the machine weighs approximately 200 tons").

All three prongs of the fixture test are met for the Aluminum Machining System, and the Court finds that it is therefore a fixture.

6. Representative Asset No. 1

The OP-150 Select measures transmission housings to ensure they conform to design tolerances and selects and installs a thin piece of metal, or "shim," with the specific thickness needed to adjust for any detected intolerance.

The parties agree that the asset is attached to the realty: it is attached to the floor by twelve bolts, which are drilled into the concrete and attached through leveling plates. The asset is also attached to utilities through threaded steel pipe connections and to the integrated assembly conveyor by bolts and electrical attachments.

With respect to the adaptation element, the OP-150 Select, by both ensuring that transmission housings are of appropriate dimensions, and also installing shims to that effect, is, "adapted to the business for which the building was erected." *Smith*, 55 N.W. at 979. Warren Transmission produces transmissions for GM cars, and the OP-150 is an essential asset on the production line, without which the realty would not serve its intended purpose.

Regarding the intent element, as with all of the other assets, this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, and there is a presumption of intent for permanence. The "the manner of annexation," *Wayne Cty.*, 563 N.W.2d at 680 (bolts drilled into concrete, utilities through steel piping), and the high level of integration with surrounding assets prevent the Trust from overcoming the presumption that this asset was installed with the intent that it remain in place permanently.

Because all three prongs of the fixture test are met for the OP-150, the Court finds that it is therefore a fixture.

F. The Paint Shop Assets

The Representative Assets within the paint shop are varied in size and function, but a common theme running throughout all of the assets in the paint shop, as with most of the assets

involved in GM's manufacturing process, is that the assets work closely with one another in a highly integrated fashion.

For example, Defendants' paint shop expert Steve Topping testified at trial regarding the assets in the paint shop, and how they work together to conduct their operations. Topping testified that a paint shop is a complex, enormous, highly integrated operation that requires hundreds of specialized machines to work together with great precision. (Topping Direct ¶¶ 31, 37; Trial Tr. (Topping) at 888:17–891:20.) At LDT, the paint shop is a $450 million facility made up of over a mile of conveyance systems that traverse three floors of the building. (Topping Direct ¶ 31.) At trial, Topping testified that upon seeing the paint shop during his visit to LDT, he believed it to be "beautiful." (Trial Tr. (Topping) at 886:24–887:2.) Topping remarked that he "thought she was the purest expression of engineering and the policies and procedures, best practices." (*Id.* at 887:7–9.)

Topping also emphasized how the construction of the paint shop and the installation of the paint shop assets was meticulously planned and executed. Topping agreed that "installation of some of [the] larger equipment begin[s] before the walls are even complete in the paint shop building." (*Id.* at 886:6–9.) At LDT, for example, the paint shop was constructed around the massive conveyors, paint booths, and paint ovens that operate there. (Topping Direct ¶ 39.) This is in part because of the nature of the paint shop assets. Huge paint and oven systems often span three stories, lengthy conveyors cut through floors and ceilings to carry vehicle bodies through paint lines, and heavily integrated paint booths (that are themselves very large) are dependent upon embedded waste processing systems. (*Id.* ¶ 37.) To ensure this elaborate, synchronized process works correctly, auto manufacturers design and determine how paint-shop assets will be

arranged long before they are installed — and, typically, before the paint shop is even built. (*Id.* ¶ 38; Trial Tr. (Topping) at 885:6–21.)

Given the size, complex configuration, and extensive integration of paint-shop assets, removing any single fixed asset would, in most instances, render the entire process highly inefficient or even inoperable. (Topping Direct ¶ 41.) This, of course, evidences GM's intent for these assets to remain in place for their useful lives. Not surprisingly, GM designs its paint shops and performs rigorous, continuous preventative maintenance efforts to ensure that each new paint shop functions for decades. (*Id.* ¶ 11; Trial Tr. (Topping) at 884:13–885:5, 887:11–13.)

The *Mid-Ohio Mech.* case, a recent lien case in Ohio, provides some useful guidance regarding the relationship between a paint shop and the realty, and how the two are integrated. The court concluded that a paint line used to coat auto bumpers met the adaptation prong of the fixture test. 862 N.E.2d at 547. The paint line included a "cure oven," its "platform," "paint-sludge removal equipment," "paint-booth scrubbers," "pollution control equipment," "robotic paint sprayers," and a "conveyor." *Id.* at 545. The court explained that all of this machinery was "essential to the use or purpose of the realty" because the entire line had been "integrated into the factory." *Id.* at 547; *see also id.* at 547–48 (stating that "clamshell dredge" used in gravel pit "may well have met the definition of a fixture" because it was "fully integrated into" the "gravel-pit operations").

The *Mid-Ohio Mech.* court emphasized that "the paint line is integrated into the factory," reaffirming the notion that, in lien disputes, industrial machinery is deemed a fixture when "integral and necessary" to the premises—particularly where the realty was originally designed for the industrial use to which the property is dedicated. *Holland*, 19 N.E.2d at 275. Just like the paint

line in *Mid-Ohio Mechanical*, the LDT paint shop's waste systems, large ovens, and floor/ceiling openings for the conveyors demonstrate a level of integration with the realty, and the precise configuration of the assets that allow them to work together demonstrate an interconnectedness evidencing an intent for permanence.

With respect to specific paint shop assets, the Plaintiff concedes that the ELPO Waste System is a fixture. The ELPO Oven Conveyor is discussed above with the other conveyor assets. The Paint Top Coat Automation Software, given the unique set of issues specific to the asset, is also discussed elsewhere in this Opinion. A brief discussion of the remaining paint shop assets is set forth below.

1. Representative Asset No. 5

As set forth above, the Paint Circulation Electrical System is a more than 2,000-pound set of electrical distribution cabinets configured to distribute power to the paint mixing and circulation assets in the paint mix room in LDT's paint shop. (Topping Direct ¶ 63.)

The parties agree that the asset is attached to the realty by means of its concrete foundation. With respect to the adaptation element, the custom-built concrete 4-inch raised foundation also is strong evidence that the real property and the asset are adapted to accommodate each other. GM constructed concrete pads to protect the asset from potential floods or spills, routed electrical conduit through the concrete to serve the asset, built a cinder block wall between the Paint Circulation Electrical System and the paint mix room. (Topping Direct ¶¶ 64, 67.) Moreover, the removal of this asset would essentially shut down all operations at the paint shop, thereby halting LDT's production process, which the property was specifically constructed to do. (*Id*. ¶ 68; Trial Tr. (Goesling) at 3255:23–3256:3.) This demonstrates that the asset was adapted to the purposes of the LDT facility.

Additionally, the concrete slab underneath the circulation system is also strong evidence that GM intended it to remain in place for its useful life. *See, e.g.*, *Mich. Nat'l Bank*, 293 N.W.2d at 628 (stating that "specially constructed concrete island" was evidence that bank's deposit equipment was permanent); *Ottaco*, 574 N.W.2d at 396 (concluding that "concrete slab foundation" was evidence that mobile home was permanent). Likewise, this asset was connected to utilities by hard conduit, and could not be removed without disrupting the paint process at LDT. This is further intent of GM's intent regarding the permanence of this asset.

Because all three prongs of the fixture test are met for this asset, the Court finds that this asset is a fixture.

2. Representative Asset No. 9

As noted above, Asset No. 9, the Top-Coat Bells, form a part of the wall of the top-coat spray booth, an agreed-upon fixture, and each applicator cabinet is rigidly anchored to the concrete floor by numerous anchor bolts. GM also routed hard conduit power connections to supply electricity to the Top-Coat Bells.

The parties agree that the attachment prong is satisfied, given the anchoring bolts and hard conduit affixing the asset to the realty. And much for the same reasons that the Paint Circulation Electrical System is adapted to the realty, so too are the Top-Coat Bells. And with respect to the adaptation element, the Top-Coat Bells provide an integral function in the assembly process along the production line. In other words, they are used in the production of vehicles for which the plant was specifically designed and constructed.

Lastly, the hard conduit attached to the asset also evidence GM's intent for these assets to remain in place permanently, as the hard conduit supplying the utilities to the assets are permanent. The Plaintiff presented no compelling evidence sufficient to overcome the

presumption that this asset was intended to remain in place as a permanent accession to the LDT paint shop.

Accordingly, the Court finds that Representative Asset No. 9 is a fixture.

G. The Foundry Assets

1. Representative Asset No. 27

Emissions System #4 Cupola is a gas cleaning system that heats the hot blast air injected into the No. 4 melting furnace at Powertrain Defiance (also known as a "cupola") and removes and controls particulates and toxic gases generated by those foundry melting. The Cupola No. 4 Emissions System is very large and heavy. (Goesling Direct ¶ 330.)

The parties agree that the attachment element is satisfied. Additionally, with respect to the adaptation element, the foundry was adapted to the Emissions System because this asset's size and weight required construction of unique, multi-story enclosures to house its components. The Emissions System is adapted to the Defiance Foundry because it is an essential and integral part of GM's use of the foundry. And the intent element is satisfied because the emissions system captures and cleans exhaust gases from the melting operation to comply with EPA requirements. (JX-1433.) GM surely intended for this asset to remain in place so that it could comply with these EPA requirements and continue to operate. The specialized multi-story enclosures constructed to house the asset further demonstrate GM's intent for this asset to remain in place for its useful life.

Accordingly, the Court finds that Representative Asset No. 27 is a fixture.

2. Representative Asset No. 38

System Gas Cleaning No. 4 Cupola is a gas cleaning system that cleaned high-temperature exhaust gases from a cupola at Powertrain Defiance. Though the asset had a large installed cost of $1,173,272, the asset was idled in 2007, and to date, two significant portions of

Representative Asset No. 38 have been removed, and the remaining portions of the asset remain abandoned in place. (Trial Tr. (Thomas) at 784:6–15; Goesling Direct ¶ 338.)

The remaining pieces of the asset are more than fifty feet tall and are supported by a steel structure that is secured to the building with lag bolts. (Goesling Direct ¶ 338.) An elaborate stair and railing system surrounds both units and is attached to the two vessels and steel structure with welds and bolts. (*Id.*) The size of the remaining portions of Representative Asset No. 38 makes removal very difficult and expensive and would cause serious damage to the building and destroy much of the remaining asset. (*Id.*)

The enormous size and weight of this asset plainly satisfy the attachment prong. And the fact that a steel structure secured to the building supporting the asset shows a high level of integration between the realty and the asset itself—in other words, the realty was adapted to accommodate this asset. And given the essential nature of the asset to the foundry process, along with the permanent methods of attachment and sheer impracticability of ever removing this asset in its entirety all point heavily to the notion that this asset was installed with the intent for it to remain in place permanently.

Accordingly, for much the same reasons that the Emissions System is a fixture, the Court also finds that the System Gas Cleaning No. 4 Cupola is a fixture.

3. Representative Asset No. 40

The Charger Crane consists of a seven-and-a-half-ton capacity charging bridge crane, suspended above the ground that moves along rails within a raw material bay. Even though the Charger Crane is not capable of delivering non-ferrous materials in the manner that it delivers iron (Trial Tr. (Thomas) at 864:5–14), and the Defiance foundry now operates primarily with non-ferrous materials, Charger Crane, when installed, was intended to serve an integral function to the foundry. It is inconsequential whether the asset is used for iron, or aluminum, or some

combination — each of the Representative Assets at Defiance Foundry is plainly adapted to foundry-specific processes on realty that cannot realistically be used for any purpose other than as a foundry.

The Charger Crane is attached to the building through four load wheels that ride along Charge Crane rails, which in turn are bolted to structural support posts of the building. The Crane is at least constructively attached by virtue of its enormous weight of 70 tons, as well as its connection to the building's 480 volt power supply. These forms of attachment satisfy the first prong of the fixture test. *See Mahon*, 20 B.R. at 839 (concluding that overhead bridge cranes were constructively attached to the building in part by sitting on rails that were affixed to the building).

The Charger Crane satisfies the adaptation prong as well as it primarily benefits the realty, because operation of a foundry is the only viable use of this facility. And the intent element is plainly satisfied given the fact that at the time of installation, the crane was absolutely necessary for the foundry to operate. Moreover, the facility itself contains a "high bay" area with railroad tracks that are part of the foundry's material distribution center, significant structural steel and foundations to support the loads carried by a charger crane, and elevators. (Thomas Direct ¶ 28 (at Figure 1, Area 2) & Ex. A at 50; Trial Tr. (Thomas) at 758:23–759:8; DX-1019.) These aspects of the foundry accommodate the operation of the Charger Crane, and are strong evidence that upon installation, the crane was intended to remain in place permanently.

Accordingly, the Court finds that the Charger Crane is a fixture.

H. Representative Asset No. 15 - The Soap, Mount and Inflate System

The parties agree that this asset is attached to the realty (Goesling Direct ¶ 60): the Soap, Mount & Inflate System, which weighs approximately 40,000 pounds, is 90 feet long, takes up

over 1,000 square feet of floor space, and is bolted to LDT's concrete foundation and to white steel in thousands of places. (Stevens Direct ¶ 232; *see also* JX-1224, JX-1215.)

Regarding adaptation, the System fits within a broader process in which tires and wheels are delivered by conveyors to the Soap, Mount & Inflate System; the wheel-tire assembly then moves by conveyor to an adjoining leak test machine, to an adjacent machine that balances the assembly, and applies wheel weights as necessary, before the completed assembly is transported by an overhead conveyor system (Representative Asset 20) to the Final Skillet Conveyor (Representative Asset 21) on the main assembly line. (Stevens Direct ¶ 235.) As such, this asset is highly integrated into the assembly process on the assembly line, and without it, production would necessarily cease.

The intent element is satisfied given the Soap, Mount and Inflate System is "necessary to the purpose to which the realty [is] adapted," *Atl. Die Casting Co.* v. *Whiting Tubular Prods., Inc.*, 60 N.W.2d 174, 179 (Mich. 1953), and here, the LDT facility simply could not function as it was intended to, namely, as a producer of completed automobiles. GM then surely intended for the asset to remain in place permanently. Moreover, the asset would be exceptionally difficult and time-consuming to remove given its size, the complexity of disassembling it, the large number of lag bolt fasteners to the floor, and its extensive connections to utilities. (Stevens Direct ¶ 238.)

Because the three-part fixture test is satisfied, the Court finds that the Soap, Mount and Inflate System is a fixture.

I. Miscellaneous Assets

1. Representative Asset No. 13

The Body Shop Weld Bus Ducts at the Lansing Facilities consist of the electric power distribution weld bus ducts for the welding operations in the body shop.

The parties agree that this asset is attached to the realty as the majority of the asset is affixed to the building roof trusses at over 1,000 points with threaded rod and I-beam clamps. (JX-1181; JX-1182; Goesling Direct ¶ 161; Trial Tr. (Stevens) at 185:5–23.)

With respect to the adaptation prong, this asset, by supplying power to the body shop machinery, is clearly "a necessary or at least a useful adjunct to the realty, considering the purposes to which the [realty] is devoted." *Wayne Cty.*, 563 N.W.2d at 680 (citation omitted). The realty, a manufacturing facility devoted to producing automobiles, requires electrical power be distributed to the assets that produce the automobiles themselves.

GM's intent for this asset to remain in place permanently can be inferred by the fact that the Bus Ducts stretch almost two miles in a specially engineered layout, are designed to be used in place with different body styles, models, and welding equipment in the future, and are essential to the functioning of the LDT body shop. The asset, therefore, evidences an extremely high level of integration with other assets in the production line, and its removal would not only be a complicated, protracted, and expensive task, but without the asset, body shop assets would not receive electrical power and operations at LDT would essentially cease. And as with the conveyor systems, the modularity of this asset is of little consequence with respect to the intent of GM regarding the assets permanence.

Because all three prongs of the fixture test are met for this asset, the Court finds that Representative Asset No. 13 is a fixture.

2. Representative Asset No. 34

The Build Line With Foundation at Warren Transmission was an assembly line used for producing 4-speed transmissions and the parties agree that the foundation in which the asset was installed is a fixture.

The parties agree that the attachment prong is satisfied for this asset, as it was installed in a pit and attached to the building through bolts to embedded structural streel, bolts to the concrete floor, and connections to plant utilities that were routed through the building's concrete floor. The concrete walls of the foundation were fused with the concrete of the surrounding floor to make a solid interconnection. Additionally, the attachment and installation of this asset provides strong evidence of GM's intent for this asset to remain in place permanently, despite the fact that after the 4-speed transmission line stopped manufacturing transmissions, the assembly line was removed and the foundation was filled in. The prevalent use of concrete in the Build Line's installation demonstrates GM's intent at the time of installation, as courts may infer intent from "the manner of annexation." *Wayne Cty.*, 563 N.W.2d at 680; *see also Cincinnati Ins.*, 166 F. Supp. 2d at 1180 (finding "intent to make permanent" because milling machine was "affixed to [plant] with concrete").

And as with the Body Shop Weld Bus Ducts, the Build Line With Foundation was a critical component in the manufacturing process. The Build Line itself was a key piece of the integrated assembly line operation, and the facility could not operate without it. The asset was plainly "a necessary or at least a useful adjunct to the realty, considering the purposes to which the [realty] is devoted." *Wayne Cty.*, 563 N.W.2d at 680 (citation omitted). The adaptation prong is therefore satisfied.

All three prongs of the fixture test are satisfied for this asset, and the Court finds that it is therefore a fixture.

3. Representative Asset No. 37 – the Courtyard Enclosure

The Courtyard Enclosure, located at Warren Transmission, is an enclosure currently used for part storage that is a building extension enclosing vacant space between buildings at Warren Transmission. (Goesling Direct ¶ 242; Deeds Direct ¶ 202.) As noted above, the construction of

the Courtyard Enclosure included the installation of a concrete floor and the addition of structural steel framing among other things. The additions to the building to create the Courtyard Enclosure are all ordinary building materials, but the Defendants maintain that certain "components" of the Courtyard Enclosure, such as the dock levelers, the dock doors, the heat and fire safety systems, the toilets, the hot water tanks, and the lighting transformers, are fixtures. (Deeds Direct ¶¶ 9, 205; JPTO ¶ 15 (stating that Defendants assert that "certain non-building components of the asset are fixtures").)

The Defendants, however, presented scant evidence relating to these "component" parts. Indeed, a single paragraph in Deeds' direct testimony offers testimony relating to these items, and consists largely of conclusory sentences relating to the three-part fixture test. (*See* Deeds Direct ¶ 205 (discussing the heat system, stating that "[t]hey were necessary to production operations in the Courtyard Enclosure, integrated with a number of building systems, and therefore I believe they were intended to be permanent").) And given that the bulk of these items were removed from the Courtyard Enclosure in 2012 and 2013 as part of a renovation (Goesling Direct ¶ 245), the Court was not presented with photographic evidence of them. Moreover, Deeds's entire direct testimony on these "components" was couched with the caveat that his familiarity with these items was only based on his participation "in an asset ledger audit that included the Courtyard Enclosure," and that he "believe[s]" (but apparently can't say with any certainty) "that the [Courtyard Enclosure] included a number of components that were installed when the Courtyard Enclosure was installed in 1982, some of which in [his] opinion have an identity independent from the building itself." (Deeds Direct ¶ 202.)

The Court is not satisfied with the evidence presented with respect to the Courtyard Enclosure components in question, and there is an insufficient record with respect to the

attachment, adaptation, and intent regarding the dock levelers, dock doors, heat system, fire safety, sprinklers, toilets, urinals, sinks, hot water tanks, and lighting transformers that the Defendants maintain are fixtures.

Accordingly, the Court finds that the Defendants have failed to meet their burden on establishing that this asset, or any of its component parts, is a fixture.

J. The CUC

1. GM was Permitted to Grant a Lien on its Residual Interest

The Collateral Agreement provides that the Term Lenders would have a security interest in any equipment or fixtures "in which [GM] now has or *at any time in the future may acquire* any right, title or interest." (JX-2 at 7 (emphasis added).) Under the UCC, GM could assign its residual rights in the CUC. *See* N.Y. U.C.C. § 9-203 and Official Comment 6; Mich. Comp. Laws § 440.9203; *Litwiller Mach. & Mfg., Inc.* v. *NBD Alpena Bank*, 457 N.W.2d 163, 165 (Mich. Ct. App. 1990) (explaining that "[t]he UCC . . . does not require that a debtor have full ownership rights" in property to grant a security interest in that property).

Further, the CUC was not excluded from the grant of collateral. While clauses (ii) and (iii) of the Collateral Agreement exclude certain property that is subject to prior liens or that consists of rights under a contract, they only do so where the prior lien or contract prohibits GM from granting additional liens. The CUC Agreements did not prohibit GM from granting additional liens on its own interest, as long as any interests it granted third parties would not interfere with Delta II's use or possession. (*See* JX-13 at 23 (USA § 2.02(e) (Delta II will keep its interest free of encumbrances); *id.* at 25 (USA § 2.04(b)) (GM will ensure that any interests in the CUC it grants third parties will not interfere with Delta II's possession or use of the CUC).) The Court finds that the CUC is within the grant of collateral because (i) GM may assign its residual interest under the UCC; (ii) the UCC Agreements were secured financing agreements

rather than a true lease; and (iii) the Collateral Agreement does not exclude GM's interest in the CUC from the grant of collateral.

However, the parties never presented evidence at trial regarding to what extent the value of Old GM's residual rights in the CUC differed from the value of the CUC itself. The KPMG Report values the CUC outright, because New GM acquired the CUC free and clear of any encumbrances. For this reason, KPMG had no reason to calculate the value of the *residual* rights. The parties' expert witnesses were likewise silent on the issue. Accordingly, the Court declines to assign a dollar value to Old GM's residual rights in the CUC. The Court leaves the calculation of that value to the parties, as part of their efforts to resolve the remaining disputed issues after the release of this Opinion.

2. The Structure Housing the CUC Assets is Real Property

The parties agree that a portion of Representative Asset No. 11, the CUC, consists of ordinary building materials, which are not fixtures. (JPTO ¶ 116.) Naturally, the physical structure that the CUC assets are housed in is not itself a fixture, but real property.

3. The CUC Systems are Fixtures

The parties agree that the following components of the CUC are fixtures: (i) the utility piping; (ii) the hard electrical conduit; (iii) the air handling units; (iv) a chilled water holding tank; (v) three batch wastewater holding tanks; and (vi) a sludge holding tank. (*Id.* ¶ 117.) The Court finds that the remaining CUC Systems are also fixtures.

The Plaintiffs urge that the CUC Systems should be evaluated separately, despite their classification as a single Representative Asset. The Court recognizes that in some situations—such as separating the CUC building materials from the CUC Systems—evaluating an asset according to its component parts may be necessary. However, evaluating each individual component within the CUC Systems goes too far. The CUC Systems are highly integrated both

with each other and with the rest of LDT. The CUC is critical to the operation of the stamping, body, paint, and general assembly areas at LDT, providing necessary electrical power; hot, chilled, treated, and domestic water; steam; compressed air; and wastewater treatment. (Stevens Direct ¶ 288.) If any of the components of the major CUC Systems were removed, LDT operations would stop until the component was replaced with an identical one. (*Id.*; Trial Tr. (Stevens) at 121:21–23 ("Q. And without the CUC can the plant operate?" Stevens: "No. It could not.").) It is not consistent with the level of integration of these assets to evaluate them piecemeal. Nevertheless, the Court has evaluated each component of the CUC Systems individually as well as collectively and found all of them to be fixtures.

Many components within the CUC are attached to the realty using custom-poured concrete pads and bolts. (*See, e.g.*, JX-1116; JX-1156; Goesling Direct ¶¶ 205, 210, 225.) Others are mounted on skids, which are likewise bolted to the floor, a concrete pad, or the building. (*See, e.g.*, JX-1122; Goesling Direct ¶¶ 210, 228.) Even where certain components are not bolted to the ground (for example, the centrifugal water chillers), their size and weight renders them constructively attached.

The CUC and the realty are also clearly adapted to one another. GM designed the CUC from the ground up to LDT's specific requirements, specifying the equipment within the CUC and constructing a purpose-built enclosure for them. (Stevens Direct ¶ 288.)

The intent element is likewise satisfied for the components parts of the CUC in dispute here. The CUC, and each of the component parts that comprise it, provide necessary utilities to the LDT plant. These components are absolutely "necessary to the purpose to which the realty [is] adapted," *Atl. Die Casting*, 60 N.W.2d at 179, and the each of these components contains features designed to "facilitate" that purpose. *In re Mahon*, 20 B.R. at 840. In order for LDT to

function as an auto manufacturing plant, the CUC must operate as it was intended to do. GM necessarily intended for the CUC and its component parts to remain in place as a permanent accession to the realty because without the CUC, the plant could not operate as intended.

Just the same, the utility system stemming from the CUC branches out to the assets across the manufacturing process, demonstrating an integration with the assets on the production line that is indicative of GM's intent for the CUC to remain in place permanently. Each of the CUC systems is essential to the functioning of, and specifically designed to support, the LDT facility, and none of the CUC systems have been moved since they were installed at LDT.

Because all three prongs of the fixture test are met with respect to the CUC Systems, the Court finds that the disputed components of the CUC are fixtures.

K. The Software

Representative Asset No. 7, Paint Top Coat Automation Software, is software that creates a user interface that allows users to monitor the paint spray application equipment, and control certain limited spray parameters, like air pressures and bell speeds. (Trial Tr. (Topping) at 932:15–934:13.)

Black's Law Dictionary defines software as "(1) [t]he sequence of instructions by which a computer accepts and translates input symbols, executes actions, and outputs symbols such as numbers, characters in an e-mail message, pictures in a text message, the music played on a mobile device, or GPS coordinates. (2) More broadly, anything that can be stored electronically." BLACK'S LAW DICTIONARY (10th ed. 2014), Software. This definition highlights an intellectual hitch with finding that the Paint Top Coat Automation Software is a fixture—namely, that the software simply consists of a particular series of ones and zeros, not unique to any specific computer or hard drive, and not even unique to one particular location at

any given time.[19] The intent prong of the fixture test analyzes the "intention to make the property a permanent accession to the realty," *Wayne Cty.*, 563 N.W.2d at 676, but because the "information" that comprises the Paint Top Coat Automation Software cannot be in only one particular location at any given time, it is problematic to suggest that GM intended for it to remain with the realty, or even in one particular place at any given time.

In any event, the Court is not required to make a determination whether software can ever be a fixture. The Court need only determine whether the Paint Top Coat Automation Software is a fixture, and this particular asset has certain unique characteristics that facilitate this analysis. The attachment prong presents a difficult hurdle for the software to overcome, and certainly "Michigan, like other jurisdictions, recognizes the law of constructive annexation." *Id.* at 680. But the Defendants have identified no case where a software program was held to be a fixture under the three-part fixture test, and the Court has not uncovered such a case in its own research.

Assets are deemed "constructively annexed" if "their removal from the realty would impair *both* their value and the value of the realty." *Id.* at 679 (emphasis added) (citing *Colton*, 255 N.W. at 434). Here, the "removal" of the software from the realty would not impair its value, as it could be easily loaded onto another computer and perform the same functions elsewhere. And with respect to the removal of the software impairing the value of the realty, Topping testified at trial that if the Paint Top Coat Automation Software were to malfunction, the spray equipment would continue to run, and the automotive production at LDT could likewise continue. (Trial Tr. (Topping) at 952:12–17; 954:5–14.) This software is therefore not attached to the realty.

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[19] Topping concedes that the Paint Top Coat Automation Software could be loaded onto another computer and perform the same function, and also concedes that the computer on which the software could be loaded would not be a fixture. (Trial Tr. (Topping) at 975:16–977:21.)

This is not to say that software can never be a fixture. For example, each piece of spray equipment that the software monitors has its own software loaded onto it actually driving the functions of the paint assets themselves. (*Id.* at 932:15–934:23.) A fixture analysis relating to this type of software, more involved in executing functions along the production line, would entail a separate set of issues. But given the facts relating to the Paint Top Coat Automation Software, the Court finds that the Defendants have failed to meet their burden in establishing the attachment element of the fixture test.

The Court finds that Representative Asset No. 7 is therefore not a fixture.

L. Holding Furnace, Representative Asset No. 28

The third prong of the fixture test in both Ohio and Michigan relates to the intention to make the asset a permanent accession to the property in which it is located. *See Wayne Cty.*, 563 N.W.2d at 676 (The third element of the three-part fixture test is "intention to make the property a permanent accession to the realty."); *Holland*, 19 N.E.2d at 275. And as noted above, it is the intention of the owner at the time of installation that matters. *See, e.g.*, *Colton*, 255 N.W. at 434 (stating that "it was the intention of the [owner] when they purchased such articles" that controls); *Grand Traverse*, 2017 WL 1908535, at *3 ("The relevant time is when the object was attached to the real property.").[20]

With respect to the 100 Ton Vertical Channel Holding Furnace (Asset No. 28), the asset was installed in 2007 as part of the project of moving the malleable iron business to Defiance from a foundry in Saginaw, but when the malleable iron line was installed at Defiance, GM knew that

[20] The Court believes that the sale/leaseback agreements covering the AA Transfer Press and the B3-5 Transfer Press, entered into shortly after these presses were put into service, stating the intention that presses remain personal property, are properly considered in determining whether GM intended to make the presses a permanent accession to the realty. The Court believes these agreements are relevant in determining GM's intent at the time of the installation.

there was a finite life of the malleable business. (Trial Tr. (Thomas) at 825:25–826:5.) As noted above, the malleable iron operations supplied parts for 4-speed transmissions, and when Representative Asset No. 28 was installed, GM expected that the life of 4-speed transmissions would be only three to five years. (*Id.* at 773:3–17, 826:11–15; *see also* Goesling Direct ¶ 336.) The holding furnace was ultimately removed from Defiance in 2010 or 2011 after the malleable iron line ceased operation because GM needed the floor space to expand its production of aluminum castings, (Trial Tr. (Thomas) at 826:16–23, 777:17-24), and different assets are used to make aluminum castings as compared to malleable iron. (*Id.* at 828:8–11.)

Thus, GM knew at the time the holding furnace was installed that the malleable iron product would only be needed for about three to five more years. (*Id.* at 826:16–20.) Despite the significant cost of Representative Asset No. 28 (approximately $4.2 million) and its large size and relatively permanent method of attachment, GM installed the 100 Ton Vertical Channel Holding Furnace expecting to remove it after only a few years, well before the end of its useful life. (Goesling Direct ¶ 337; Trial Tr. (Thomas) at 826:21–24 (Mr. Thomas, Defendants' expert, stating that he estimated the normal useful life of Representative Asset No. 28 to be twenty-five years).) And consistent with GM's expectations, the malleable iron line, in fact, ceased production about three years after its installation. (Trial Tr. (Thomas) at 828:19–22; *see also* Goesling Direct ¶ 336.)

The fact that Old GM knew that the asset would only be in use for a finite period of time operating in connection with the 4-speed transmission line belies the notion that it was installed with the intent to remain in place permanently. Accordingly, the third prong of the three part fixture test here is not met, and the Court finds that Representative Asset No. 28 is therefore not a fixture.

M. The Court Need Not Make a Determination on Assets that the Parties Concede are or are not Fixtures

The Trust concedes that the General Assembly Pits & Trenches (Representative Asset No. 2), which consists of various pits and trenches required for installation of certain machinery and equipment used in the general assembly of vehicles, are fixtures. Likewise, the Trust concedes that the Paint Building Lines – Process Waste ELPO, (Representative Asset No. 4), which consists of a system of trenches, piping, and pumps that carries liquid waste from the ELPO process to the waste treatment facility at the Central Utilities Complex, is a fixture.

The Court therefore has no occasion to make a determination with respect to these assets. However, the fact that the parties ultimately reached agreement regarding these assets is not altogether surprising, given that concrete is a key component of the assets, whether it be in the form of a pit or a trench. Moreover, the trenches, pits, and piping that are associated with these two assets are necessarily interconnected and integrated with other assets, namely, those assets distributing waste or other liquids into the trenches or pipes, and any assets attendant to the pits.

VIII. LEGAL STANDARDS: VALUATION

Resolving which of the forty Representative Assets are indeed fixtures is only the first stage of this Court's task. The Court must now decide how to value the Representative Assets it rules are fixtures. The primary dispute between the parties is what premise of valuation is appropriate for the vast majority of the Representative Assets that were sold to New GM: liquidation value or going-concern value. The Plaintiff argues that because the U.S. Government paid an above-market price in the 363 Sale, the Court should imagine that the 363 Sale never took place at all and value the Representative Assets as if Old GM had liquidated. The Defendants, while conceding that the 363 Sale is not an indicator of the fair market price of the assets, argue that a going-concern value is appropriate. The Defendants urge the Court to use

RCNLD amounts (defined below) developed as an interim step by KPMG LLC ("KPMG") in a contemporaneous fresh start accounting exercise.

The Court agrees with the Plaintiff that the above-market portion of the 363 Sale price should not be relied upon as an indicator of the value of the Representative Assets. But the Plaintiff goes too far in asking the Court to value the Representative Assets under the assumption that Old GM would have liquidated—a hypothetical outcome that was never the intended disposition of the assets. The Court agrees with Defendants that going-concern value is appropriate for those assets that were sold to New GM, but disagrees that the interim RCNLD amounts are the best measure of that value. Instead, the Court finds that KPMG's *final* valuation—including a significant reduction for the earning power of the business upon emerging from bankruptcy in the midst of the Great Recession—is the best available evidence of the value of the fixtures sold to New GM.

The Court will first review the applicable legal standards before turning to a discussion of KPMG's work, the expert testimony offered by the parties, and its valuation conclusions.

A. Assets Must Be Valued According to Their Proposed Disposition as of the Valuation Date

Section 506(a)(1) governs the valuation of collateral such as the Representative Assets at issue here. "Such value shall be determined in light of the purpose of the valuation and of the proposed disposition or use of such property, and in conjunction with any hearing on such disposition or use or on a plan affecting such creditor's interest." 11 U.S.C. § 506(a)(1). The Supreme Court has emphasized that "actual use, rather than a foreclosure sale" or some other event "that will not take place, is the proper guide" in valuing collateral. *Assocs. Commercial Corp. v. Rash*, 520 U.S. 953, 954 (1997).

In *Rash*, the Supreme Court addressed the question of how to value a truck in the chapter 13 context. *Rash*, 520 U.S. at 956. The truck was collateral on a loan with a balance of $41,171; the loan was secured up to the value of the truck, and unsecured for the amount over and above the value of the truck. *Id.* The debtors sought to cram down a chapter 13 plan in which the truck would be used in their business, and the debtors would be required to provide the creditor with payments that, over the life of the plan, would total the present value of the allowed secured claim on the truck. *Id.* at 957. The Court noted that the value of the secured claim is governed by section 506(a). *Id.* At the evidentiary hearing in the bankruptcy court, the lender and the debtor proposed different methods of valuing the truck: the lender argued that the value of the truck was its replacement cost of approximately $41,000, while the debtors argued that the value of the truck was limited to the value the lender would realize upon its foreclosure and sale (essentially its liquidation value), approximately $31,000. *Id.*

The Supreme Court held that the appropriate value of the truck was its replacement cost as part of a going concern, not its liquidation value. *Id.* at 959. In an extended discussion of section 506(a), Justice Ginsburg wrote that "the 'proposed disposition or use' of the collateral is of paramount importance to the valuation question." *Id.* at 962. "Of prime significance, the replacement-value standard accurately gauges the debtor's 'use' of the property. . . . That actual use, rather than a foreclosure sale that will not take place, is the proper guide under a prescription hinged to the property's 'disposition or use.'" *Id.* at 963. Courts have consistently held that when assets are sold in bankruptcy "as part of the business as a going concern," "going-concern" value, as opposed to liquidation value, is appropriate under section 506(a)(1) and *Rash*. *In re SK Foods, L.P.*, 487 B.R. 257, 263 (E.D. Cal. 2013); *accord, e.g.*, *In re Wendy's Food Sys., Inc.*, 82 B.R. 898, 900 (Bankr. S.D. Ohio 1988) (rejecting liquidation value for fixtures and equipment

sold as part of going concern); *In re United Puerto Rican Food Corp*., 41 B.R. 565, 571 (Bankr. E.D.N.Y. 1984) (rejecting liquidation value for collateral sold as going concern). Although *Rash* was decided in the context of a chapter 13 plan, the Court finds that the Supreme Court's emphasis on the *actual* disposition of the property, rather than a hypothetical outcome, applicable here.

1. Market Value Does Not Include the Amount of any Government Subsidy

While courts regularly value assets sold as part of a going concern business using the going-concern premise of value, *see United Puerto Rican Food Corp*., 41. B.R. at 566 (private market transaction), extra caution is required when the sale was not conducted at a market value. Going-concern value implies that the actual sale price is the appropriate benchmark for the court's valuation, but in certain cases of government intervention, the sale price may not reflect the market value. "Courts have routinely held that *so long as the sale price is fair and is the result of an arm's-length transaction*, courts should use the sale price" to value collateral. *SW Boston Hotel Venture, LLC v. City of Boston*, 748 F.3d 393, 411 (1st Cir. 2014) (citation omitted) (emphasis added); *accord, e.g.*, *Urban Communicators PCS Ltd. P'ship v. Gabriel Capital, L.P.*, 394 B.R. 325, 336 (S.D.N.Y. 2008) (stating that "actual sale price" paid by buyer in section 363 sale was proper measure of value under section 506(a)).

The proceedings under the Regional Rail and Reorganization Act of 1973 are instructive here, with limitations that the Court will discuss below. *See Matter of Valuation Proceedings Under Sections 303(c) and 306 of Reg'l Rail Reorganization Act of 1973*, 445 F. Supp. 994 (Sp.Ct.R.R.R.A. 1977) (Friendly, P.J.) [hereinafter *Regional Rail*]. The U.S. Government enacted emergency legislation to preserve the railroad industry and the Special Court was tasked with valuing certain condemned rail assets. *Id.* at 1003–04. The Special Court held that the condemned rail assets were to be valued not on the basis of their value to the U.S. Government,

but on their value in the absence of the government's intervention. *Id.* at 1016. The "special value" of those assets to the government, including the public policy value of the transaction, "must be excluded as an element of market value." *Id.* at 1014 (quoting *United States v. Miller*, 317 U.S. 369, 375 (1943)). The *Regional Rail* court ultimately rejected going-concern value because the assets were being condemned, not continuing as part of a profitable, ongoing business. *Id.* at 1037 n.54. Importantly, the Special Court distinguished the case of "property taken from a company that continued in business" as an appropriate example of going-concern valuation. *Id.*

B. The Cost Approach is Routinely Used by Courts to Value Collateral

Bankruptcy and other courts often use the cost approach to value assets as part of a going concern, particularly where there is a lack of reliable comparable market sales. *See, e.g., In re Grind Coffee & Nosh, LLC*, No. 11-50011-KMS, 2011 WL 1301357, at *8 (Bankr. S.D. Miss. Apr. 4, 2011) (holding that the cost approach was the "most reasonable estimate of market value" because of the lack of comparable sales data); *In re Hand*, No. 08-61624-11, 2009 WL 1306919, at *15 (Bankr. D. Mont. May 5, 2009) (holding that the "cost approach" was more reliable than the "sales comparison approach" when comparable sales data was limited); *Missouri Pac. R.R. v. I.C.C.*, 23 F.3d 531, 534 (D.C. Cir. 1994) (upholding decision to use RCNLD to value railroad assets); *Jeanes Hosp. v. Sec'y of Health & Human Servs.*, 448 F. App'x 202, 208 (3d Cir. 2011) (holding that RCNLD was the appropriate method of appraisal for a hospital and noting that the cost approach "is the most reliable method where . . . there is a lack of market activity"); *see also Waranch v. Comm'r*, 58 T.C.M. (CCH) 584 (T.C. 1989) (RCNLD was appropriate valuation methodology for shares in a utility company: the "cost approach is . . . used to estimate the market value of special-purpose properties, and other properties that are not

frequently exchanged in the market"). This Court agrees that the cost approach is a reliable method of valuation in the circumstances here.

C. The Bankruptcy Code Affords Significant Flexibility to the Court in Determining the Proper Method of Valuation

In the absence of a fair market sale price to use as a benchmark, the Court must look to other indicia of value, including the appraisals offered by the parties at trial. The Defendants correctly emphasize that the Court has significant flexibility in this exercise, urging the Court to accept KPMG's RCNLD values while rejecting the TIC Adjustment as a "top-down" exercise. (Defendants' Post-trial Brief at 450.) Indeed, the Supreme Court has noted that bankruptcy courts must determine "the best way of ascertaining replacement value on the basis of the evidence presented." *Rash*, 520 U.S. at 965 n.6. The Court "may form its own opinion as to the value of the subject property after consideration of the appraisers' testimony and their appraisals." *In re Patterson,* 375 B.R. 135, 144 (Bankr. E.D. Pa. 2007) (quoting *In re Karakas*, 2007 WL 1307906, at *5). In other words, the Court need not choose any party's proffered appraisal wholesale, but may instead pick and choose to determine "the best way" to value the collateral. The Third Circuit has affirmed a bankruptcy court's reliance on an expert who "used his own analysis and judgment to adjust" a third party valuation report. *In re SemCrude L.P.*, 648 F. App'x 205, 213–14 (3d. Cir. 2016). The *SemCrude* court noted that the third party report was "contemporaneously prepared" and "not made in anticipation of litigation," additional indicia of reliability. *Id.*

As explained below, the Court finds the most credible evidence of the value of the fixtures to be the Final Concluded Value derived by KPMG in its very lengthy report prepared for New GM in 2009 as part of New GM's fresh start accounting. (*See* DX-141 (the "KPMG Report").) The KPMG Report was not prepared for litigation purposes. Plaintiff and Defendants

each find things they like, and much they dislike, about the KPMG Report. The Court has considered, and discusses at length below, the valuation evidence offered by each side. In the end, the Court arrives at its own conclusions of value, for the most part based on the KPMG Report.

IX. FINDINGS OF FACT: VALUATION

A. The KPMG Report

Following the closing of the 363 Sale, KPMG was retained by New GM to provide an opinion regarding the fair value of total invested capital ("TIC") and certain assets, liabilities and equity interests acquired by New GM as of the Closing Date. (DX-141 at 2.) Part of KPMG's assignment was to provide New GM with "individual opinions of value" with respect to each of the hundreds of thousands of individual assets that New GM purchased. (Trial Tr. (Furey) 1336:24–1337:15; DX-364 (spreadsheet showing KPMG's valuations of building and improvement assets); DX-365 (spreadsheet showing KPMG's valuations of machinery and equipment assets).) KPMG determined the values of thirty-three of the thirty-nine Representative Assets for which the parties presented evidence of valuation at trial.[21]

Patrick Furey, a managing director in KPMG's economic and valuations services practice, testified at trial regarding KPMG's work for New GM. In 2009, Furey was a senior manager with KPMG and led the sixteen-person team that valued assets classified as "Personal Property," which consisted primarily of machinery and equipment and included thirty of the Representative Assets. (DX-151A; Trial Tr. (Furey) at 1328:21–1329:5.) Three other Representative Assets were valued under the category of "Buildings and Improvements." (DX-150A.) Furey spent nine months working on the KPMG Report mostly full time, attending site

[21] The parties agreed that they would not present evidence at trial regarding the value of Asset 39, the Core Box Robot.

visits, gathering data, and interviewing company management. (Trial Tr. (Furey) at 1326:9–25; 1329:6–14.) The Court finds Furey's testimony credible and relevant.

1. KPMG's Valuation Process

a) KPMG Valued the Assets Sold to New GM as of the Closing Date Using the "Going Concern" Premise of Value

In valuing the assets sold to New GM, KPMG applied the "fair value" standard set forth in the Financial Accounting Standards Board's Accounting Standards Codification 820 ("ASC 820," formerly known as Statement of Financial Accounting Standards No. 157), which provides that fair value is "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." (DX-172 at 9; *accord* DX-141 at 3; Trial Tr. (Furey) at 1339:5–1340:16.) Consistent with this fair value standard, KPMG considered the "highest and best use of the asset," which "should reflect the highest value that could be realized for [an] asset" so long as that use is feasible and legally permissible. (Trial Tr. (Furey) at 1340:17–1341:24.) KPMG valued New GM's assets "as part of a going concern business," a valuation premise known as "value in use." This valuation approach "presumes the continued utilization of the assets as a component of the business in connection with all other assets." (DX-141 at 4.) Furey testified that "the value in use yielded the highest [and] best use in [KPMG's] opinion." (Trial Tr. (Furey) at 1342:8–1343:8; *accord* DX-172 at 10.)

KPMG valued the assets as of the Closing Date: July 10, 2009. (DX-141 at 2.) KPMG applied a "market participant assumption," meaning that the valuation of an asset was "independent of it being specifically held by GM." (Trial Tr. (Furey) at 1553:5–8.) The assets were valued "as configured and utilized by a market participant," whether New GM or some other market participant, using the assets in accordance with their highest and best use. (*Id.* at

1552:25–53:10, 1528:16–22.) Thus, as Mr. Furey testified, KPMG did not conclude that the assets had a different value in the hands of New GM than they would have in the hands of Old GM or another party. (*Id.* at 1528:13–16.)

b) KPMG's Application of the Cost Approach

After starting from the premise that the assets sold to New GM should be valued according to the principle of continued use, KPMG considered which valuation methodology to use: the cost approach, the income approach, or the market approach. Under the cost approach, an appraiser "estimate[s] the replacement cost of the current functionality that exists within the subject assets, and then adjust[s] that for various forms of obsolescence, including physical depreciation, functional obsolescence, and economic obsolescence." (*Id.* at 1367:18–1368:3; DX-141 at 126.) Under the market approach, "the fair value reflects the price at which comparable assets . . . are purchased under similar circumstances." (DX-141 at 56.) The income approach "is generally a way of assigning value to an asset based on its ability to generate cash flows," typically using the discounted cash flow method. (Trial Tr. (Furey) at 1367:3–10; DX-141 at 127.)

The market approach is disfavored for unique assets for which recent comparable sales are limited or do not exist. (DX-354 (ASA Manual) at 94 ("The sales comparison approach is not feasible when the subject property is unique, and it generally will not be feasible if an active market for the property does not exist. . . . When an inactive market exists, property might be better analyzed using the income or cost approaches."). KPMG also determined that the income approach was not feasible for the valuation of individual assets, because it was "not reasonable to try to attribute revenue and expenses to individual assets within a complicated plant like GM runs." (Trial Tr. (Furey) at 1369:13–18; DX-141 at 127 (stating that the income approach was not used because "it was not feasible to attribute income to the individual assets"). Plaintiff's

appraisal expert Goesling agreed, testifying that "it is not possible to reliably allocate earning capacity when valuing individual assets." (Goesling Direct ¶ 396.)

KPMG determined to primarily use the cost approach. (DX-141 at 107, 126–27; Trial Tr. (Furey) at 1366:25–69:18; DX-354 at 12–13.) Furey and expert appraisal witnesses for both parties agreed at trial that under the continued use premise of value, the cost approach is the appropriate method to value manufacturing assets. (Trial Tr. (Furey) at 1368:4–1369:2; Trial Tr. (Goesling) at 3428:8–13, 3511:24–3512:15; Chrappa Direct ¶¶ 37–38.) The appraisal literature introduced at trial is in accord. (DX-354 (ASA Manual) at 116 (noting that for appraisals of an installed group of assets or industrial facility under fair market value in continued use premise, "the appraised value may be more appropriately found through the cost approach").)

(1) Indirect and Direct Replacement Cost New

Once establishing that its valuation would be based on the continued use premise of valuation and that the cost approach was most appropriate, KPMG next worked to determine the replacement cost new ("RCN") for each asset being valued. (DX-141 at 126.) KPMG began by determining the RCN for each asset in both of two ways: using the "indirect" method or the "direct" method.

KPMG calculated the indirect RCN for each asset by multiplying the original installed cost of the asset by a trend factor. (Trial Tr. (Furey) at 1380:9–18.) Trend factors are based on published sources and are intended to account for inflation over the course of time between the installation date and the valuation date. (DX-141 at 128.) The trend factors may vary widely based on the type of asset being valued, and in the case of certain assets—such as technology—may actually be deflationary because the asset can be replaced more cheaply with a modern alternative. (Trial Tr. (Furey) at 1382:18–83:10, 1385:5–19.)

In contrast to the indirect method, the direct method was based more significantly on information provided by New GM management. KPMG first determined the total replacement cost of all the production equipment at a manufacturing facility, based on replacement cost data maintained by management. (DX-141 at 131; Ewing Direct ¶ 17.) KPMG reviewed this data and met with New GM management to discuss it. (Trial Tr. (Furey) at 1388:23–1390:18.) New GM provided replacement cost data to KPMG on a "line-by-line" basis, *i.e.*, on the level of each assembly line, body shop, or paint shop. New GM did not provide replacement cost data on the individual asset level, with the exception of stamping presses. (*Id*. at 1390:11–1391:11; DX-153 at 1; Ewing Direct ¶ 17.) KPMG summed the line-by-line replacement costs data to reach a facility-wide total replacement cost. (*See* DX-153 at 2, 4–6.) To reach values on the individual asset level, KPMG allocated that total cost according to each asset's proportionate share of that facility's total *indirect* RCN (calculated as described above). (*Id.*; Lakhani Direct ¶ 42; Trial Tr. (Furey) at 1391:14–25.) Furey testified that analyzing the replacement cost on a line-by-line level was "appropriate, given that most of these assets represent an assemblage of assets that were put together to produce a certain product, rather than a collection of unrelated individual assets in that listing." (Trial Tr. (Furey) at 1466:7–1467:8.) Indeed, this Court has observed (as discussed above) that assets on a GM assembly line work in close tandem.

After determining both the direct and indirect RCN, KPMG determined which method to use for the assets in each facility or on each line. (*Id.* at 1391:14–1393:20.) KPMG compared the direct and indirect results for each line, and discussed the results of its analysis with New GM management. (*See* DX-153 at 2; *Id.* at 1391:14–1393:20, 1397:7–1399:10.) For most assets, KPMG chose the direct method because it represented the most "current" costs and technology. (Trial Tr. (Furey) at 1399:11–1400:19.) In some cases, such as assets that were outside the

major production lines and were therefore not included in the line-by-line approach, KPMG used the indirect method. (*Id.* at 1391:14–1393:20, 1397:16–1399:10.) Of the thirty Representative Assets that KPMG valued in the machinery and equipment portion of its Fresh Start Accounting exercise, twenty-two were valued using the direct method, and eight were valued using the indirect method. (DX-151A at 2–3.) Of the thirty GM North America ("GMNA") facilities that KPMG evaluated as part of its valuation project, twenty-four were valued using the direct method and six were valued using the indirect method. (DX-141 at 130.)

(2) Physical Depreciation

Once establishing the RCN for each asset based on either the direct or indirect method, KPMG reduced that amount to account for physical deterioration. To do this, KPMG first determined the normal useful life of each asset, then subtracted that asset's chronological age to determine its "remaining useful life" ("RUL"). (DX-141 at 131; Trial Tr. (Furey) at 1419:21–1420:16; *accord* DX-354 at 60–62.) Generally, KPMG derived the normal useful lives of the assets based on professional guidance published by the American Society of Appraisers and Marshall Valuation Service, along with input from New GM engineers. (Trial Tr. (Furey) at 1421:6–12, 1423:10–15; DX-141 at 119–21.)[22] In some cases in which an asset was anticipated to be taken out of service before the end of its RUL, for functional or other business reasons, KPMG applied an override to shorten the RUL used in its calculation. (Trial Tr. (Furey) at 1423:17–25:6, 1426:23–1427:19.) Next, KPMG divided the remaining useful life of each asset by its normal useful life to calculate a "percent good," which was multiplied by the replacement

[22] Defendants' fixture experts also provided their own opinions regarding the normal useful lives of the Representative Assets. KPMG's normal useful life estimates were lower than those of Defendants' fixture experts in all but one case (Asset No. 12), in which both KPMG and Stevens reached identical conclusions. (*See* Defendants' Post-trial Brief at 29–30.)

cost of the asset to derive the replacement cost less physical deterioration. (*See* DX-151A at 2–3.)

(3) Functional Obsolescence

After determining the "percent good" for each asset, KPMG applied additional reductions to account for functional obsolescence, defined in the KPMG Report as "the loss in value caused by inefficiencies or inadequacies of the asset itself. Functional obsolescence is internal to the asset and is related to such factors as technological advancement, excess capability of the asset, excess capital costs, and excess operating costs." (DX-141 at 132; *see also* Trial Tr. (Furey) at 1434:7–21.) Furey testified that KPMG reduced its valuation in four different ways to account for functional obsolescence: (i) a column in its valuation spreadsheet which separately applied reductions for assets at the GM Powertrain Tonawanda plant because the plant was "partly shuttered" in connection with the restructuring efforts (Trial Tr. (Furey) at 1437:16–1439:19, 1440:22–1441:25; *see* Stevens Direct ¶ 91); (ii) reductions in RUL as described above; (iii) a 35% reduction to the replacement cost value of certain powertrain assets due to decreased "functionality" in comparison to a modern facility (DX-153 at 1-2; Trial Tr. (Furey) at 1400:20–1402:8); and (iv) by using direct replacement cost rather than indirect. (Trial Tr. (Furey) at 1435:23–1436:2.) Furey testified that using the direct method, which uses replacement cost (rather than installed cost) as its starting point, "basically eliminates any excess value that can be ascribed to an asset, due to inefficiencies in the way that that asset was built. So our application of the direct replacement cost approach quantifies, by its nature, quantifies those excess capital costs and eliminates [the need to apply] functional obsolescence." (Trial Tr. (Furey) at 1436:3–11.)

(4) Capacity-Based Economic Obsolescence

KPMG next applied reductions to account for capacity-based economic obsolescence. KPMG defined economic obsolescence as "[t]he loss in value of a property caused by factors external to the property such as economics of the industry; availability of financing; loss of material and/or labor sources; passage of new legislation; changes in ordinances; increased cost of raw materials, labor, or utilities; reduced demand for the product; increased competition; inflation or high interest rates; or similar factors." (DX-141 at 108.) In basic terms, if a plant is underutilized, it suffers from economic obsolescence. KPMG used historical and projected capacity utilization data for the years 2008 through 2010 maintained by GM in the ordinary course of its business—a fairly conservative approach. (*See* Trial Tr. (Furey) at 1453:6–13, 1454:20–25, 1456:25–57:13; JX-19.)

(5) RCNLD

At this point in its analysis, KPMG reached a figure it called "Final RCNLD Pre Eo." "RCNLD" stands for "Replacement Cost New Less Depreciation" and "Eo" (or "EO") stands for "Economic Obsolescence." RCNLD Pre Eo is the figure the Defendants urge the Court to adopt, while the Plaintiff argues that even if the KPMG report is relevant, RCNLD was only an interim step.

c) KPMG's TIC adjustment

After reaching the RCNLD step, KPMG applied a further reduction based on total invested capital, or "TIC." The parties have referred to this step as the "TIC Adjustment." KPMG described the TIC Adjustment as a reduction to account for "economic obsolescence due to the earnings power of the business . . . . If the TIC analysis did not support the fixed asset valuation then an economic penalty was applied." (DX-141 at 109.) In essence, the TIC

Adjustment was intended to adjust for the fact that the sum of the value of New GM's individual assets could not reasonably be worth more than the TIC:

> In theory, an economic overlay of the value of the aggregate assets of an entity can be compared to the underlying asset values on its balance sheet. The economic overlay compares the TIC to the aggregated value of the business unit's net working capital, tangible and identifiable intangible assets. To the extent that the TIC is less than the value of all of a business unit's assets, then it is appropriate to apply a factor for economic obsolescence to certain assets.

(*Id.* at 142.) KPMG further explained that "the individual assets cannot be valued at less than what they could be sold for on an individual basis in the open market" because "if the overall business is worth less than the sum of what the assets could be sold for individually, the owner would maximize the value of the assets by selling the individual assets rather than continue to operate as a going concern." (*Id.* at 116.)

Furey testified that the professional appraisal literature and KPMG's own guidelines acknowledge the TIC Adjustment concept (Trial Tr. (Furey) at 1520:18–1521:19) and Plaintiff's expert Klein testified that GAAP and ASC 820 required the TIC Adjustment in this situation. (Trial Tr. (Klein) at 2869:22–2870:13; *see* JX-20 at 278.) Financial Accounting Standards Board's Accounting Standards Codification 820 ("ASC 820") states that the price received for the sale of a machine used at its highest and best use in conjunction with other assets "would not be more than either of the following: The cost that a market participant buyer would incur to acquire or construct a substitute machine of comparable utility; [or] [t]he economic benefit that a market participant buyer would derive from use of the machine." (JX-20 at 279.)

(1) KPMG's TIC Calculation

To determine New GM's TIC, KPMG determined the TIC for each of New GM's business units (*e.g.*, GMNA) and then summed the business unit TICs to come up with a total TIC for New GM. (*See* DX-141 at 65; Hubbard Direct ¶ 57.) KPMG used a discounted cash

flow ("DCF") analysis to calculate a present value of free cash flows and added other net assets to arrive at the TIC. (Hubbard Direct ¶ 57.) DCF methodology incorporates weighted average cost of capital ("WACC") as one of several elements.

KPMG based its DCF, including the WACC, on the projections included in VP-4B, Old GM's fifth viability plan that was ultimately accepted by the U.S. Government. *See supra* Section II at 10–11. (DX-141 at 64.) KPMG calculated a different WACC for each of New GM's business units; for GMNA, KPMG used a WACC of 23% "to reflect KPMG's skepticism that GM would achieve its projections." (*See id*. at 66–67, 278; Hubbard Direct ¶ 107.) New GM later used a nearly identical WACC of 22.8% in its own reporting to the Securities and Exchange Commission ("SEC"). (JX-9 at 108 (New GM 2009 10-K); *see also* Trial Tr. (Fischel) at 2643:23–2645:22.)

Among several "primary considerations" KPMG listed as contributing to the WACC, KPMG included research from two different sources "to benchmark the discount rates appropriate for business at various stages of development." (DX-141 at 67.) KPMG noted that its benchmarking research indicated that a WACC of 23% is "consistent with a company that is in the Pre-IPO phase." (*Id.*) KPMG further observed that the Bridge/IPO WACC band ranges from twenty to thirty-five percent, and placed New GM "towards the low-end of that range due to their established customer base and brand recognition." (*Id.*) KPMG's benchmarking analysis underscores that New GM was financially a new company, but with established brand recognition and an existing customer base. The Court finds that using a WACC on the low end of the IPO range appropriately takes into account these unique considerations.

The 23% WACC was also driven in large part by KPMG's use of a 27% company specific risk premium ("CSRP"), which KPMG determined was "required for the substantially

higher risks inherent in realizing the operating returns forecast by GM over the general industry." (*Id.* at 71.) KPMG had previously conducted numerous valuations incorporating a CSRP. (*Id.* at 70.) KPMG determined that a CSRP was appropriate for New GM because none of the other public companies used as benchmarks in its beta calculation were emerging from bankruptcy—a process that creates "additional relative volatility and return that the market would price into a company." (*Id.* at 71.) KPMG determined that GMNA was subject to (among others) a "very high" restructuring risk, "very high" strategic risk, "high" general risk, and "very high" operational risk, leading to a relative risk assessment of "highest" and an approximately 27% CSRP. (*Id.* at 71–77.) VP-4B's forecasted EBIT margins were also higher than Old GM's historical profit margins, increasing the risk that New GM might not achieve its projections. (*Id.*)

Based in part on the WACC and CSRP described above, KPMG calculated a TIC for New GM as a whole of $60 billion and for GMNA of $21.7 billion. (DX-204; DX-141 at 265–77.) As a result, GMNA's net asset value exceeded its TIC by approximately $6.4 billion.[23]

(2) The Application of the TIC Adjustment and Balance Sheet Adjustment

To bring the asset valuation in line with TIC, KPMG applied a 55% reduction to its valuation of the assets in the Personal Property and Equipment ("PP&E") and Building and Improvements categories: the two categories containing all the Representative Assets that KPMG valued. (DX-151 at 2.) KPMG thus determined a "Final Concluded Value" for the assets. (*Id.*) Although this step normally would have concluded KPMG's process, after applying the TIC Adjustment, KPMG learned additional facts that led it to conclude that GMNA's TIC

[23] The Defendants urge the Court to rely on KPMG's RCNLD values, but challenge KPMG's calculation of the TIC and subsequent TIC Adjustment. As explained below, the Court rejects the Defendants' arguments challenging the TIC Adjustment.

was higher than it first thought. (PX-261 at 14–15; Klein Direct ¶ 56.) Accordingly, KPMG made an upward adjustment to the valuation of the assets in three PP&E categories to account for the higher TIC. (DX-141 at 366.) After this adjustment, KPMG arrived at its final "Fair Value" (also called "Final Concluded Value") figures. (*Id.*; DX-151A at 2.)

2. Defendants' Experts

a) Abdul Lakhani

Abdul Lakhani is a retired partner of Ernst & Young ("EY"), where he spent his career as an auditor. (Lakhani Direct ¶ 1.) Lakhani has substantial experience in acquisition accounting, having worked on hundreds of business combination transactions during his career. (*Id.* ¶ 3.) He was retained by the Defendants to offer his opinion on KPMG's valuation of the PP&E category of assets, including the specific values attributed to the Representative Assets valued by KPMG. (*Id.* ¶ 7.) Lakhani opines that KPMG's RCNLD figures are "reliable, contemporaneous evidence" of the fair value of the Representative Assets as of the Valuation Date. (*Id.* ¶ 9(c).) The bulk of Lakhani's testimony was devoted to arguing that the Court should adopt the RCNLD values without incorporating the TIC Adjustment.

Lakhani argues that KPMG's calculation of TIC was faulty from the start, because it was based on incorrect intra-corporate reallocations among New GM's business units. (*Id.* ¶ 114.) Lakhani primarily takes issue with a $7 billion reallocation (the "Technology Reallocation") of TIC from GMNA to GM's Technology, Service and Tooling ("TST") entity. (*Id.* ¶ 100.) He argues that the Technology Reallocation essentially double-counted the cost of certain royalty payments from GMNA to Global Technology Operations, Inc. ("GTO"), a division of TST. (*Id.* ¶¶ 103–04.) Had KPMG not made the Technology Reallocation, Lakhani argues, GMNA's TIC would have correspondingly been $7 billion higher, rendering the TIC Adjustment unnecessary. While Lakhani argues that the Technology Reallocation was inappropriate under GAAP, he also

challenges two other reallocations for corporate expenses as a matter of "professional judgment." (*Id.* ¶ 109–14.) The KPMG Report reflects that KPMG determined the reallocations based on discussions with New GM management and its own analysis of New GM's cash flows. (DX-141 at 65; Trial Tr. (Lakhani) at 1678:7–15.)

Lakhani opines that the TIC adjustment was inappropriate because it essentially assigned "negative goodwill" to GM's PP&E assets. (Lakhani Direct ¶¶ 89–97, 116.) Further, he concludes, this practice was unacceptable under GAAP. Lakhani criticizes KPMG's application of the TIC adjustment at an "interim" stage when the assets and liabilities were measured at fair value, without converting some assets and liabilities to their non-fair-value, GAAP-required amounts. (*Id.* ¶¶ 116, 118.) According to Lakhani, goodwill should be measured only *after* measuring all of GM's assets, liabilities, and equity interests at their GAAP-required values. (*Id.* ¶ 121.) This would have meant that KPMG left the balance sheet unbalanced, but Lakhani testified that would be reasonable because "it wasn't [KPMG's] assignment to come up with a complete set of balance sheet[s]." (Trial Tr. (Lakhani) at 1729:8–18.) Lakhani opines that had KPMG evaluated goodwill after converting all elements of the balance sheet to their GAAP-required values, no TIC Adjustment would have been required, and GMNA would have recognized only $20 billion in goodwill on its final balance sheet instead of the $26.4 billion it ultimately did. (Lakhani Direct ¶ 122.) The Court notes that Lakhani's opinion is significantly based on a single column header in a KPMG work paper entitled "negative goodwill," although Furey credibly testified at trial that the column header was an isolated "shorthand" (Trial Tr. (Furey) at 1522:24–1523:6) and that KPMG did not conclude that "negative goodwill" existed. (*Id.* at 1548:21–1549:4.)

Even if the TIC Adjustment were appropriate, Lakhani argues, it should have been applied across all of New GM's asset categories pro rata, rather than only to certain categories of PP&E. (Lakhani Direct ¶¶ 124–26.) Lakhani opines that applying the TIC Adjustment only to PP&E essentially turned the value of assets in the PP&E category into a residual number, which was linked to other elements of the balance sheet such as operating liabilities. (*Id*. ¶¶ 91, 96; Trial Tr. (Lakhani) at 1736:6–1738:7; DX-189.) However, it is clear from the KPMG Report that the TIC Adjustment was applied only to the PP&E categories that were "valued via the cost approach," not the market approach. (DX-141 at 142–43.) KPMG explained that "the market approach inherently captures all forms of obsolescence, so no additional adjustments for economic obsolescence were applied." (*Id.* at 143.) However, the cost approach presumes that the value of the asset must be supported by the business earnings—a market participant would not pay more for the assets than the cash flow of the business could support. (*Id.* at 142.)

b) Glenn Hubbard

Hubbard is the Dean of the Graduate School of Business of Columbia University, where he holds the Russell L. Carson Professorship in Finance and Economics. (Hubbard Direct ¶ 2.) Hubbard has served as an economic advisor to numerous public and private institutions, and has authored over 100 research articles and other publications. (*Id.* ¶ 3.)

Hubbard's opinion focuses on the implied equity value as a result of the purchase price paid in the 363 Sale. Hubbard opines that even after reducing the 363 Sale purchase price to account for the government's public policy objectives, the purchase price implies a common equity value for New GM between $33.4 and $40.1 billion—significantly higher than KPMG's calculation. (*Id.* ¶ 9.) Had KPMG used the equity value implied by the purchase price according to Hubbard, GMNA's TIC would have been higher than its net asset value and no TIC Adjustment would have been necessary. (*Id.*) Hubbard testified that the purchase price paid by

the U.S. Treasury for 60.8% of New GM's equity implies a total equity value of $65 billion—dramatically higher than KPMG's estimate of $19.9 billion. (*Id.* ¶¶ 9, 73, 87; Trial Tr. (Hubbard) at 2302:19.) Hubbard acknowledges, however, that the purchase price included a premium for the government's "public policy objectives." (Hubbard Direct ¶ 76.) The Court will refer to this premium conceptually (no matter how it is calculated) as the "Public Policy Subsidy."

Hubbard opines that he can estimate the amount of the Public Policy Subsidy by relying on two public statements made by government employees involved with the 363 Sale. First, Hubbard cites a statement by Ron Bloom of the Auto Task Force that the U.S. Treasury expected "a reasonable probability of repayment of substantially all of the government funding for new GM and new Chrysler, and much lower recoveries for the initial loans." (*Id.* ¶ 79; JX-22 at 57 n.274.) Hubbard explains that Bloom's reference to "initial loans" refers to the pre-bankruptcy loans provided under TARP, while his reference to "government funding for new GM" refers to the DIP Facility. (Hubbard Direct ¶ 79; Trial Tr. (Hubbard) at 2369:18–2370:12, 2497:9–22.) Second, Hubbard cites a Congressional Budget Office report estimating that the Government would likely not recoup up to 73% of the initial TARP loans. (Hubbard Direct ¶ 80; Trial Tr. (Hubbard) at 2365:13–17, 2372:6–2375:6.) Based on those two public government statements, Hubbard estimates the amount of the Public Policy Subsidy at no more than $15.3 billion to $19.4 billion of the U.S. Treasury's investment. (Hubbard Direct ¶ 78; Trial Tr. (Hubbard) at 2364:2–18.)

Even without using Hubbard's own calculation of New GM's common equity value, Hubbard opines that KPMG's valuation of GMNA's TIC was "flawed" because KPMG used an unreasonably high WACC in its DCF valuation. (Hubbard Direct at ¶ 10.) KPMG used a 23%

WACC for GMNA, driven in large part by its use of a 27% company-specific risk premium ("CSRP"). (*Id*. ¶¶ 10, 111; DX-206; DX-141 at 278.) Hubbard opined that the WACC, and specifically the CSRP component, was unreasonably high when benchmarked against contemporaneous WACC estimates used by GM itself, and against GM's peer companies. (Hubbard Direct ¶¶ 11, 122–24; Trial Tr. (Hubbard) at 2444:15–2449:2.) The KPMG Report indicates that KPMG used a CSRP because of the risk of "a company emerging from bankruptcy" and "risk associated with the forecasted earning." (DX-141 at 69–77.) Hubbard argues that if KPMG had concerns about GM's projections, it should have approached GM about adjusting the forecasts rather than use a CSRP. (Hubbard Direct ¶ 144; Trial Tr. (Hubbard) at 2391:10–92:6, 2417:5–2418:7, 2451:25–2453:5, 2459:5–2461:4.) Hubbard estimated that an appropriate WACC for GMNA ranged from 8.3% to 11.5%. (Hubbard Direct ¶¶ 12, 166–72; Hubbard Direct Ex. 56; DX-244; Trial Tr. (Hubbard) at 2407:4–7.) Any WACC below 15.9% would have obviated the need for the TIC Adjustment. (Hubbard Direct ¶ 174.)

c) Maryann Keller

Maryann Keller has spent over forty years as an auto industry analyst, working for several Wall Street firms and Priceline.com, and has served on numerous boards of directors and auto industry panels. (Keller Direct ¶¶ 1–3.) She is the author of two books focused on GM and the auto industry. (*Id.* ¶ 5.)

Keller opines that New GM's projections were reasonable, and it was therefore unreasonable for KPMG to apply a CSRP to capture additional risks. (*Id.* ¶¶ 10; 29–41.) Keller testified that GM correctly projected the size of the U.S. auto market, as well as the amount of time it would take to recover from the recession, in VP-4B. (*Id.* ¶¶ 43–51.) Keller further testified that GM also correctly projected its own performance, arguing that the risks KPMG sought to capture in its CSRP were actually minimal. For example, Keller testified that KPMG's

concerns about "restructuring risk" were unreasonable because (among other reasons) so-called "unnatural equity holders" such as the government and labor unions were actually unlikely to interfere in New GM's management decisions. (*Id.* ¶¶ 104–05.) Keller further testified that KPMG's concerns about the "strategic risk" inherent in New GM's "unprecedented" strategy of maintaining only four brands was also misplaced; because the brands New GM planned to shed were not profitable, Keller argues, there was no need to account for "strategic risk." (*Id.* ¶¶ 71–72, 110.) Keller also testified that KPMG's assessment of New GM's regulatory, operational, and competitive risks were unreasonably high.

3. Plaintiff's Experts

a) Gordon Klein

Gordon Klein was retained by the Plaintiff specifically as a rebuttal expert to respond to Lakhani's testimony. (Klein Direct ¶ 7.) Klein is a CPA and has taught numerous classes at UCLA and Loyola on the topics of corporate and partnership taxation, accounting, and business plan development. (*Id.* ¶¶ 2–4; Trial Tr. (Klein) at 2882:23–2883:18.) He is also the author of several books on accounting, finance, and business law. (Klein Direct ¶ 5.)

First, Klein testified that the KPMG Report is limited in scope and not applicable to this case because KPMG valued the Representative Assets in the hands of New GM, after the 363 Sale had already closed, and utilized a "value in use" premise of value rather than the "value in exchange" premise of value the Plaintiff urges. (*Id.* ¶ 31; *see* JPTO ¶ 42.) Klein argues that the value of assets measured as of July 10, 2009, may have been substantially different on June 30, 2009, because of uncertainties associated with the pending 363 Sale. (Klein Direct ¶¶ 31–32; Trial Tr. (Klein) at 2787:14–2788:7.) Further, KPMG only valued certain categories of assets and did not value goodwill. (Klein Direct ¶¶ 26–27.) Klein also argues that the KPMG Report

was limited in scope because KPMG was not retained as an auditor and consequently relied on information from New GM in its valuation exercise. (Klein Direct ¶ 29; *see* DX-141 at 2.)

Klein attacks KPMG's initial replacement cost values as imprecise, primarily because KPMG's direct replacement cost approach was built on line-level information provided by New GM management. (Klein Direct ¶¶ 70–71; *see also* DX-141 at 2.) Klein describes the line-level data provided by management as "aggregate estimates" that were prorated to individual assets in a formulaic manner—"not a careful determination of any individual asset's replacement cost." (Klein Direct ¶ 70.) Klein argues that KPMG's direct replacement cost method was flawed because "KPMG took a management-provided, facility-wide estimate and divided it into portions, allocating this broad estimate to individual assets based on a formulaic approach . . . ." (*Id.* ¶ 71.) Similarly, Klein criticizes KPMG's use of facility-wide utilization rates to calculate capacity-based economic obsolescence. (*Id.* ¶ 81.) Klein also opines that KPMG's decision to apply the Balance Sheet Adjustment at the asset category level, rather than the individual asset level, underscores that its task was only to value categories and not individual assets. (*Id.* ¶ 58; Trial Tr. (Klein) at 2872:20–2875:13.)

Most forcefully, Klein argues that RCNLD was never intended to be used as a final value and is instead only an intermediate step in KPMG's process. (Klein Direct ¶¶ 115–16; *see also* Trial Tr. (Furey) at 1554:2–10.) RCNLD amounts never appear in the KPMG Report as final concluded values, and are always shown as intermediate columns in a sequence proceeding to "Final Concluded Values" or "Fair Value." (Klein Direct ¶ 116.) Klein points out that KPMG referred to the RCNLD values as "RCNLD Pre EO," indicating that the amounts did not reflect the remainder of its adjustment for economic obsolescence (in other words, the TIC Adjustment). (*See* DX-151A at 2.) Only after applying the TIC Adjustment, described in more detail above,

did KPMG reach its "Final Concluded Value" for individual assets. (Klein Direct ¶ 56; *see* DX-151A.)[24]

b) Daniel Fischel

Daniel Fischel is the Lee and Brenner Professor of Law and Business, now emeritus, at the University of Chicago Law School. (Trial Tr. (Fischel) at 2551:21–24.) Fischel has held numerous academic appointments at the University of Chicago and Northwestern University, with an academic focus on corporate finance and the economics of financial markets. (*Id.* at 2552:2–21.) He is the author of several books and approximately 50 articles on those topics. (*Id.* at 2552:13–17.) Fischel is also the president of the consulting firm Compass Lexecon, and has acted as a consultant and expert witness in the areas of corporate finance, valuation, regulation of financial markets and the economics of financial markets. (*Id.* at 2552:25–2553:24.) Fischel testified, in essence, that GM would have been liquidated but for the government's intervention and the appropriate premise of value is therefore liquidation.

Fischel testified that the going concern premise of value is "only applicable when a firm is economically viable and therefore can remain in operation without a non-market subsidy as was paid in this case." (Fischel Direct ¶ 90.) The liquidation standard, on the other hand, "assumes a firm will cease operations and the firm's assets will be liquidated and sold individually or in groups." (*Id.* ¶ 91.) Fischel argues that because the government paid an above-market purchase price reflecting certain public policy priorities that a private market participant would not have considered, the Court must value the assets as if the 363 Sale had never taken place.

[24] Later, once it learned facts that led it to believe GMNA's TIC was higher than it initially thought, KPMG applied the Balance Sheet Adjustment at the asset category level, raising GMNA's final fair values of three categories of PP&E by a total of $1.5 billion. (Klein Direct ¶ 56; DX-141 at 366.)

In addition to testifying that liquidation value was the appropriate premise for valuing New GM, Fischel also responded to Hubbard's testimony regarding the value of the Public Policy Subsidy. Fischel testified (and the Court agrees) that there is no reliable way to calculate the exact amount of the Public Policy Subsidy; however, he estimated a "proxy" amount. (*Id.* ¶ 81; Trial Tr. (Fischel) at 2640:14–2642:23.) Fischel subtracted the total value of what Treasury received from the total amount invested, based on the value of New GM's common equity, preferred equity, and notes as December 31, 2009, and estimated a "proxy" subsidy cost of approximately $28 billion. (Fischel Direct ¶ 81; Trial Tr. (Fischel) at 2640:14–2642:23.) Fischel's proxy is significantly higher than Hubbard's proposed values of $15.3 or $19.4 billion. Fischel testified that using his own proxy amount of $28 billion returns a common equity value broadly consistent with KPMG's $19.9 billion valuation. (*See* Trial Tr. (Fischel) at 2643:12–2644:5; DX-141 at 265.)

B. The Expert Appraisals

In addition to the Defendants' argument that the Court should adopt the RCNLD values, the parties put forth alternative valuations conducted by professional appraisers. Plaintiff's expert David Goesling and Defendants' expert Carl Chrappa, both qualified and experienced equipment appraisers, offered competing appraisals of the Representative Assets.

1. Goesling: Orderly Liquidation Value in Exchange

Goesling is a Managing Director in the Valuation & Financial Opinions Group at Stout Risius Ross and is currently a senior member of the Machinery & Equipment Group, after managing the group for more than nine years. (Goesling Direct ¶ 3.) Goesling has more than 35 years of experience performing valuations for clients for purposes including financial reporting, asset-based lending, condemnations, litigation and bankruptcy. (*Id.* ¶ 5.) Goesling has appraised automotive assets for multiple purposes including bankruptcy; those assets have included vehicle

components, vehicles, and automotive assembly plants in the United States, Germany, Belgium, and Romania. (*Id.* ¶ 6.)

a) Value in Exchange

Plaintiff's counsel asked Goesling to assume for purposes of his appraisal that "absent a substantial government subsidy, Old GM would have been unable to continue as a going concern." (*Id.* ¶ 387.) Goesling testified that he "reviewed the Expert Report of Daniel Fischel, which concluded, among other things, that there was 'no basis to attribute any value related to Old GM's assets as part of a going concern' and, further 'since there are insufficient cash-flows to support the operations of the firm, the value of the firm is estimated based on the prices one would expect to receive for the firm's assets as part of a disposition of those assets on a piecemeal basis through the secondary markets.'" (*Id.*) Based on this assumption, Goesling concluded that the highest and best use of the Representative Assets was value in exchange, or the market price that would be received from the sale of the assets on the secondary market. (*Id.*) Goesling relied on Fischel's opinion (*see supra* Section IX at 170) that liquidation is the appropriate premise of value. For the reasons already discussed in Section VIII, the Court rejects Goesling's valuation premise for the assets sold to New GM. As a result, the Court rejects the use of Goesling's methodology, but nevertheless includes a detailed discussion of Goesling's valuation work.

b) Orderly Liquidation Value

Once establishing that he would proceed based on the value in exchange premise, Goesling had to determine the appropriate definition of value: Fair Market Value, Orderly Liquidation Value, or Forced Liquidation Value. (Goesling Direct ¶ 388.) Fair Market Value, as defined in the professional literature, is "an opinion, expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under

any compulsion to buy or sell and both having reasonable knowledge of relevant facts." (PX-163 at 11; Goesling Direct ¶ 388.) Orderly Liquidation Value is defined as: "[A]n opinion of gross amount, expressed in terms of money, that typically could be realized from a liquidation sale, given a reasonable period of time to find a purchaser (or purchasers), with the seller being compelled to sell with a sense of immediacy on an as-is, where-is basis, as of a specific date." (PX-163 at 526; Goesling Direct ¶ 388.) Finally, Forced Liquidation Value is appropriate in circumstances where a seller is forced to sell in a severely restricted timeframe, such as a quick sale auction occurring in thirty to sixty days. (Goesling Direct ¶ 388.)

Goesling determined that Old GM was under "compulsion" to sell its assets. "GM was in bankruptcy and was on a tight timeframe to complete a 363 sale of most of its assets to avoid having to liquidate." (*Id.* ¶ 389.) Goesling determined that Orderly Liquidation Value was the most appropriate premise of value in this case because Old GM had a "reasonable but limited amount of time to sell the assets." (*Id.* ¶ 390.) Goesling assumed that Old GM would have had between nine and eighteen months to sell the Representative Assets. (*Id.*) He "assumed that the buyers would be a mix of end users, speculative purchasers, and scrap dealers. Had [he] used a Forced Liquidation Value premise, [he] would have assumed a higher percentage of speculative purchasers and scrap dealers, resulting in lower values for the assets." (*Id.* ¶ 392.) Accordingly, Goesling used the Orderly Liquidation Value in Exchange ("OLVIE") premise of value.

c) Application of Appraisal Techniques

(1) The Income Approach

Like KPMG and Chrappa, Goesling determined that the income approach was not an appropriate way to value the Representative Assets because "it is not possible to reliably allocate earning capacity when valuing individual assets." (*Id.* ¶ 396.)

(2) The Cost Approach

Goesling applied the cost approach, although he ultimately determined that the market approach yielded the most accurate values and thus used the cost approach only where he did not have enough data to rely upon the market approach. (*Id.* ¶ 397.) Goesling's application of the cost approach, at least in structure, is fairly similar to KPMG's application of the cost approach discussed above.

Goesling first determined the RCN of the assets using the historic cost trending method (similar to the "indirect" method employed by KPMG). Goesling separated the Representative Assets by type or "class," then used price indices for each asset class to increase the asset's cost to its current cost. (*Id.* ¶ 400.) He then applied depreciation factors for physical deterioration, functional obsolescence, and economic obsolescence. (*Id.* ¶ 402.)

Physical deterioration: Goesling considered the age of the asset as of the Valuation Date, current physical condition, current utilization, operating history, maintenance history, and planned future utility. He also estimated the effective age of an asset based on a number of factors, including amount of use, regularity and extent of maintenance, and wear and tear. He established a "percentage good" based on the asset's remaining useful life and normal useful life. (*Id*. ¶ 403.)

Functional obsolescence: Functional obsolescence is a loss in value attributable to the development of new technology that allows for more efficient or less costly replacement property. (*Id.* ¶ 404.) Goesling does not appear to have applied significant deductions for functional obsolescence, focusing instead on economic obsolescence.

Economic obsolescence: Goesling considered whether the following indications of economic obsolescence were present: (i) reduced demand for a company's products; (ii) overcapacity in the industry; (iii) dislocation of raw material supplies; (iv) increasing costs of

raw materials, labor, utilities, or transportation, while the selling price of the product remains fixed or increases at a much lower rate; (v) government regulations that require capital expenditures to be made, but offer no return on investment; and (vi) environmental considerations that require capital expenditures to be made, but offer no return on investment. (*Id.*) Goesling applied significant economic obsolescence to the Representative Assets because of the "depressed" market for manufacturing machinery on the Valuation Date. (*Id.*) The economic obsolescence factor that he applied varied depending upon the type of asset, because even in the severely depressed mid-2009 market for automotive assets, some assets remained more in demand and thus maintained their value more than other assets. To account for these differences among asset types, Goesling's economic obsolescence adjustments varied from around 40% for robots to 95% for conveyors and other property for which he opined that there was a limited market or no secondary market as of June 2009. (Trial Tr. (Goesling) at 3522:17–23:15; 3524:2–16.) Unlike in a going-concern valuation, inutility was not a consideration in Goesling's liquidation analysis. (*See* Goesling Direct ¶ 405.) Goesling based his deductions for economic obsolescence heavily on his research conducted for his market analysis (discussed below), on the principle that the market price for similar assets is likely to capture all of the extrinsic factors that would impact the value of the asset. (*Id.*)

(3) The Market Approach

Because there were only comparable market sales available for some of the Representative Assets, Goesling was unable to apply the market approach to every asset. (Trial Tr. (Goesling) at 3499:20–3500:6.) He applied both the Cost and Market Approaches, and ultimately determined that the Market Approach yielded the most accurate values and, where possible, relied on the Market Approach. (Goesling Direct ¶ 397; Trial Tr. (Goesling) at 3500:4–3500:14.) In developing his opinion of Orderly Liquidation Value using the Market Approach,

he considered the following three techniques to estimate the value of the assets: (1) a direct match of a recent sale in the used market; (2) a comparable match, which determined value based on the analysis of similar used equipment sales; and (3) the percent to cost technique. (Goesling Direct ¶ 407.)

For the direct match and comparable match techniques, Goesling estimated values of the Representative Assets based on market prices in actual transactions and on asking prices for similar assets. (*Id.* ¶ 408.) After searching numerous sources and databases for sales or offerings of assets similar to the forty Representative Assets, he selected the sales or offerings he deemed to be most comparable with the property being valued. (*Id.* ¶ 408, Ex. F.) He then made adjustments to account for differences in factors such as time of sale, location, type, age, condition of the equipment and prospective use. (*Id.* ¶ 408.)

For the percent to cost technique, Goesling analyzed the ratio of used sales prices to the RCN of the asset, derived by reviewing transactions in assets similar to the forty Representative Assets in nature and age. He then analyzed the relationships between age, selling price, and replacement cost to develop a percent to cost factor. He applied those percent to cost factors to the cost of similar assets for which only limited or no market data was available. If the subject asset was the same age and quality as the similar asset from which the factor was extracted, Goesling applied the percent to cost factor directly. If the assets were similar but a different age, Goesling used a relationship analysis to adjust the percent to cost factor. (*Id.* ¶ 409.) Where there was no available data for comparable sales of similar assets, he considered whether the asset had any scrap value. Goesling obtained market data from industry publications, dealer websites, and his own experience and contacts within the machinery dealer industry. (*Id.* ¶ 410.)

Chrappa criticized Goesling's use of the market approach at trial, because Goesling was not able to find market data for every Representative Asset and was in some cases only able to find a small number of comparable market sales. (Chrappa Direct ¶¶ 125–26, Ex. B.) Goesling acknowledged that "[t]he biggest problem was actually finding comparable sales information." (Trial Tr. (Goesling) at 3432:6–18.) Chrappa also testified that it can be difficult to reliably estimate the necessary adjustments for installation and integration costs. (Chrappa Direct ¶ 52.)

(4) Reconciling the Cost and Market Approaches

As the Court discussed above, Goesling applied the cost approach to all of the Representative Assets, and the market approach to all of the Representative Assets for which he could obtain market data. To the extent possible, Goesling reconciled these results into a single conclusion of value for each asset. When he was able to apply both the cost and market approaches, he placed all weight on the market approach indication of value. (*Id.* ¶ 411.) Goesling testified that the market approach provides a more reliable indication of value as of the Valuation Date, as the adjustments can be more reliably calculated to develop an indication of value as compared to the cost approach.

2. Chrappa: Fair Market Value in Continued Use with Assumed Earnings

Carl Chrappa has over forty years of experience in the appraisal field. (*Id.* ¶ 8.) He is certified by the American Society of Appraisers, the Royal Institution of Chartered Surveyors, and the National Association of Independent Fee Appraisers, among others. (*Id.*) He has conducted over 1,000 appraisals in the course of his career, including between four or five dozen appraisals of automotive machinery and equipment. (*Id.* ¶ 10; Trial Tr. (Chrappa) at 1879:21–1880:5.) Chrappa was retained by the Defendants to conduct an appraisal of the Representative Assets as of the Valuation Date. Defendants argue that while KPMG's RCNLD values are the most reliable values for the Representative Assets, the Court should rely on Chrappa's valuation

for those assets that were not valued by KPMG, namely Representative Asset Nos. 10, 20, 30, 31, 32, and 33. (*See* Defendants' Brief Ex. A (Joint Valuation Chart).)

a) Fair Market Value in Continued Use

The main difference between Chrappa's appraisal and Goesling's is the premise of value. Chrappa used the Fair Market Value in Continued Use ("FMVICU") premise, because the proposed disposition for the vast majority of the Representative Assets as of the Valuation Date was to be sold to New GM as part of a going concern. (Chrappa Direct ¶¶ 20–23; Trial Tr. (Chrappa) at 1887:5–8, 1924:6–15, 2019:14–22.) Chrappa determined that the highest and best use of the Representative Assets was their sale to New GM: the sale was legally permissible, physically possible, financially feasible due to the U.S. Government's financing, and maximally profitable. (Chrappa Direct ¶ 22.)

For the two assets (29 and 30) which were not sold to New GM but were proposed as of the Valuation Date to remain with the Motors Liquidation estate and be sold within a year or two after the closing of the 363 Sale, Chrappa determined that the appropriate premise of value was orderly liquidation value. (*Id.* ¶ 34.)

b) FMVICU with Assumed Earnings

As discussed above regarding KPMG's valuation work, a going-concern valuation requires the appraiser to determine that the earnings of the business support the valuations assigned to the assets. FMVICU appraisal can be conducted with an earnings analysis, meaning that the appraiser has conducted his or her own verification of the business's earnings, or with assumed earnings, meaning that the appraiser has not independently verified the business's earnings. (*See* DX-354 at 10–11.) Chrappa decided to assume earnings rather than perform an independent verification; he considered that the U.S. and Canadian governments had verified that New GM would continue to operate as a going concern, rejecting several viability plans until

GM produced a plan the government deemed credible. (Trial Tr. (Chrappa) at 1924:16–25:3; *see also* Trial Tr. (Worth) at 1853:9–15, 1862:4–7.)

c) Application of the Cost Approach

Chrappa decided to use the cost approach, rather than the income or market approaches. Chrappa determined, like KPMG and Goesling, that the income approach is not appropriate for the valuation of individual assets. (Chrappa Direct ¶ 42.) Unlike Goesling, however, Chrappa also considered the market approach inappropriate. Chrappa opined that there was not sufficiently high quality data from around the Valuation Date to reliably apply the market approach. (*Id.* ¶¶ 48–52.) For example, Chrappa opined that most of the sales data available was too far removed from the Valuation Date to be useful. (*Id.* ¶ 49.)

(1) Replacement Cost New

Like Goesling and KPMG's "indirect" approach, Chrappa calculated the RCN for each asset using a trending method in which the historical installed cost of an asset is trended upward using price indices. (*Id.* ¶¶ 60–61.) With three exceptions (Assets 31, 12, and 30), Chrappa determined that the trended RCN was accurate. For Asset No. 31 (the Danly Press), Asset No. 12 (the Overhead Welding Robot), and Asset No. 30 (the TP-14 Press), Chrappa made downward adjustments to the trended historical cost to account for the fact that the cost to purchase an equivalent asset as of the Valuation Date would be lower than the trended historical cost. (*Id.* ¶ 61, Ex. A at 13, 34, 36.) Chrappa considered this adjustment to capture economic obsolescence for those three assets. (*Id.* ¶ 61.)

(2) Adjustments for Deterioration and Obsolescence

Chrappa applied deductions to capture the physical deterioration of all assets by applying the "age/life" method, which deducts a fraction of the value of the asset equal to its effective age divided by its life. (*Id.* ¶¶ 70–71; *see* DX-354 at 62.) KPMG and Goesling used a similar

age/life physical deterioration method in their cost approach calculations. Rather than rely on the useful life data from GM's E-Fast ledger system (which he opined were too low), Chrappa determined the assets' economic useful lives based on his own experience appraising these and similar assets in the automotive industry. (*Id.* ¶¶ 75–76.)

Next, Chrappa applied deductions for functional obsolescence. Some functional obsolescence had already been accounted for at the RCN stage, by selecting the most economical replacement for the asset. (*Id.* ¶¶ 85–86.) Chrappa also applied "Excess Operating Expense" deductions to every asset to capture the fact that technological advances make newer assets cheaper or more efficient to operate. (*Id.* ¶ 86.) To capture this form of functional obsolescence, Chrappa relied on the Bureau of Labor Statistics, as well as his own experience, and applied a deduction of 1% to 5% each year, depending on the nature of the asset. (*Id.* ¶¶ 88–90.)

Finally, he applied deductions for economic obsolescence. Chrappa opined that projected facility utilization rates captured all of the economic obsolescence for each asset. He testified that GM's decisions over a multiyear period regarding how much to utilize the machines at each plant would be informed by all outside economic factors, the demand for GM automobiles, and the cost of materials. (*Id.* ¶¶ 92–96.) For the two assets that Chrappa appraised on the OLV premise of value, he applied a 30% economic obsolescence deduction to reflect automotive market conditions—which he opined, in contrast to Goesling, were expected to improve by the second half of 2009. (*Id.* ¶¶ 109–11.) For those assets, he applied an additional 55% "market tier" adjustment based on calls to brokers and his own experience to reflect the fact that those assets were expected to be sold at liquidation value. (*Id.* ¶ 112; Trial Tr. (Chrappa) at 2033:18–2034:2.)

3. Goesling: Orderly Liquidation Value in Place

In response to Chrappa's expert report, Goesling performed another valuation using the Liquidation Value in Place ("LVIP") premise of value. (Goesling Direct ¶¶ 428–29.) He testified that in his opinion, OLVIE is the appropriate premise for valuation of all the Representative Assets; Goesling's OLVIE analysis actually yielded higher results that his LVIP analysis because he determined that there would be more buyers for the assets on a piecemeal basis than on an in-place basis. (Trial Tr. (Goesling) at 3482:25–3484:4.) Goesling's LVIP analysis was done only in response to Chrappa's testimony, and the Court agrees with Goesling (although perhaps for different reasons, as discussed below) that LVIP is not the appropriate premise upon which to value the Representative Assets.

LVIP is defined as "an opinion of the gross amount, expressed in terms of money, that typically could be realized from a properly advertised transaction, with the seller being compelled to sell, as of a specific date, for a failed, non-operating facility, assuming that the entire facility is sold intact." (PX-163 at 11.) In his alternative valuation, Goesling assumed that the assets would have been sold by Old GM to a typical market participant, with full knowledge of all relevant facts, and paying for the assets with cash (or conventional financing), as installed and ready for use in the plants where they were located as of June 30, 2009. (Goesling Direct ¶ 430.) Because he considered the 363 Sale price a non-market price, he did not use the sale price as an indicator of market value. (*Id.*) As for his OLVIE analysis, Goesling did not use the income approach. He did apply the cost and market approaches, with a few differences to account for the LVIP premise of value.

There were two key differences in his application of the Cost Approach under an LVIP "in-place" premise as compared to an OLV "in-exchange" premise. (*Id.* ¶ 432.) First, when applying the cost approach to the in-exchange premise of value, he made a downward adjustment

for the installation and removal of the asset, but for the in-place valuation, this adjustment was no longer necessary because the assets were to remain in place. (*Id.* ¶ 433.) Second, because an in-place value is premised on a sale of an entire facility, while his calculations of physical depreciation for each asset remained the same, his calculation of functional and economic obsolescence employed a different approach. (*Id.* ¶ 434.) To estimate economic obsolescence for purposes of his alternative LVIP valuation, he considered sales of two former Old GM assembly plants located in Shreveport, Louisiana, and Wilmington, Delaware. (*Id.* ¶ 435.) Goesling used the sale prices of those two facilities to determine an economic obsolescence factor, which ranged from 80% to 87% of RCN less depreciation. (*Id.* ¶ 439.) He then made additional adjustments to account for the fact that the Wilmington and Shreveport sales had occurred approximately one and a half years after the Valuation Date, when the market had improved; additional comparable sales; and differences in physical characteristics, among other factors. (*Id.* ¶¶ 439–41.)

Goesling's application of the market approach under the LVIP premise of value was quite similar to that under his OLVIE premise of value. He used generally the same market data and approach, but made some adjustments to the relevant of certain data to account for the in-place value premise. For example, for assets that might have a higher market value when sold in pieces than in their entirety, Goesling considered its partial sale value for OLVIE, but had to consider the asset in its entirety for LVIP. (*Id.* ¶ 445.) He also did not consider scrap value under the LVIP premise. (*Id.*)

As with his OLVIE valuation, Goesling placed all weight on the market approach result when possible; he used the cost approach result when there was not enough data to use the market approach. (*Id.* ¶ 449.)

C. KPMG's Final Values are a Reliable Valuation of the Assets that were Sold to New GM

On the Valuation Date, the only proposed disposition for the bulk of the Representative Assets was their sale as part of a going concern to New GM. Besides the bare fact that there were objections to the 363 Sale pending on the Valuation Date, the Plaintiff has not shown that the value of the Representative Assets was meaningfully different on July 10, 2009 (the Closing Date) than on June 30, 2009 (the Valuation Date). The evidence shows that KPMG conducted an intensive, ground-up process to value the assets, over many months. The Court finds that KPMG's application of the cost approach by calculating replacement cost at the line level, rather than at the individual asset level, does not invalidate its use for valuing assets as part of a production line. As the Court discusses above, manufacturing assets on a production line work closely together and often are of very little or no use when removed from the line; in fact, removing even one asset from an integrated production line may force the entire line to shut down until that asset can be replaced. Especially considering the scale of the valuation task, the Court finds that it was reasonable for KPMG to value assets at the line-by-line, rather than individual level. KPMG's method of calculating individual asset values by allocating line-by-line direct replacement cost according to each asset's proportional share of the line's indirect replacement cost is acceptable to the Court. For the same reason, the Court is satisfied that KPMG's use of facility-level capacity data to calculate capacity-based economic obsolescence was reasonable, as it is unlikely that individual assets within a facility would be utilized at significantly different rates.

Although Defendants urge the Court to accept the RCNLD figures as a final valuation, the Court declines to do so. The KPMG Report is quite clear that RCNLD was not the final result of KPMG's work. The professional literature underscores that a company cannot be

valued higher as a whole than the sum of its individual assets, necessitating the TIC Adjustment. As the Court discussed further above, the Defendants' attacks on KPMG's calculation of GMNA's TIC and the TIC Adjustment are attempts to second-guess the contemporaneous judgment of KPMG and New GM management. The Defendants' attempts to attack KPMG's TIC calculation by estimating the amount of the government subsidy are speculative at best, and the Court will not engage in speculation. The Court finds that the TIC Adjustment is, in fact, the best reasonable way to prevent creditors from receiving a windfall from the Public Policy Subsidy. The TIC Adjustment, in KPMG's words, was intended to capture (and allocate to individual assets) the price a buyer would pay for assets "*on the open market*." (DX-141 at 116 (emphasis added).) The Court finds that KPMG's Final Fair Value—including the TIC Adjustment—is the appropriate method by which to value the Representative Assets that were sold to New GM.

Both sides agree that the imputed price paid by the Government included a very substantial Public Policy Subsidy. That amount cannot fairly be assigned to the value in continued use of the specific assets acquired by New GM. Based on all of the evidence introduced at trial, the Court concludes that KPMG's TIC calculation was the best evidence offered by either side in arriving at a concluded value—without the Public Policy Subsidy—for the assets in dispute. This trial involved only forty representative assets of over 200,000 that need to be valued in the aggregate by settlement or judgment. KPMG's Final Fair Value amounts will provide a useful benchmark for the vast number of assets that were valued by KPMG.

D. Goesling's Orderly Liquidation Value in Exchange Analysis is a Reliable Valuation of the Assets that were not Sold to New GM

In contrast to the assets that were sold to New GM, the assets that remained with the Motors Liquidation estate were never intended to continue operating. (*See* Chrappa Direct ¶ 34.) The Court finds that OLVIE is the appropriate premise upon which to value those assets. Chrappa describes applying economic obsolescence to those assets based on his calls with four equipment dealers and his own experience, but the Court is convinced that Goesling's approach is the more reliable valuation method in this circumstance. Goesling applied both the cost and market approaches, choosing the method for each asset with the best available data. While the Court disagrees with Goesling's use of the OLVIE premise for assets that *were* sold to New GM, the Court notes that this disagreement is primarily with the guidance given to Goesling by counsel and not with Goesling's process itself. For assets whose proposed disposition at the Valuation Date was to remain with the Motors Liquidation estate and be liquidated, Goesling's OLVIE analysis is the best available valuation.

X. CONCLUSIONS OF LAW: VALUATION

A. The Assets Sold to New GM Should be Valued According to a Going Concern Premise of Value

1. The Proposed Disposition or Use of the Representative Assets Was to Be Sold to New GM as Part of a Going Concern Business

First, the Court finds that the Representative Assets that were sold to New GM should be valued using a going-concern premise of value. As of the Valuation Date, the 363 Sale had been negotiated, the deadline for competing bids had passed with no bids submitted, the Court had authorized DIP financing from the U.S. Government, and the DIP Facility had been funded. *In re Gen. Motors Corp.*, 407 B.R. at 485, 494. While there were indeed objections to the 363 Sale pending, no other disposition of the assets had been proposed or was seriously being

contemplated. The ultimate goal of the proposed 363 Sale was to preserve the going-concern value of Old GM. (*See* Trial Tr. (Worth) at 1812:5–8.)

The Supreme Court's discussion of section 506(a) in *Rash* is applicable here. The Supreme Court emphasized the importance of valuing the collateral based on its actual proposed use rather than a hypothetical disposition. *See Rash*, 520 U.S. at 954. While *Rash* concerned the valuation of collateral in the context of a chapter 13 plan rather than a section 363 sale, section 506(a) is equally applicable to both situations. While *Rash* does not fully answer the question of how the Court should account for the Public Policy Subsidy, *Rash* does command that the collateral should be valued according to its actual proposed use as of the Valuation Date. For most of the Representative Assets, that proposed use was in a sale to New GM as part of a going-concern business.

The Court rejects the use of liquidation value for the assets that were sold to New GM as part of a going concern. Liquidation was never the proposed disposition of the assets and was always a hypothetical outcome. In *Regional Rail*, the court used liquidation value because the assets were being condemned and were not continuing as part of a going concern. 445 F. Supp. at 1037 n.54. The *Regional Rail* court contrasted its own facts, a condemnation proceeding, with a sale of an ongoing business in which going-concern value *would* be appropriate. *Id.* The Court thus finds that, while *Regional Rail* is important for the proposition that the Public Policy Subsidy should not be included in the valuation, *Regional Rail* does not mandate that the Court use a liquidation premise of value here. Moreover, just as the debtors in *Rash* benefited from their ability to cram down a chapter 13 plan and continue using the truck, the Plaintiff here has benefited from the U.S. Government's intervention to keep GM operating as a going concern. Unsecured creditors (the beneficiaries of the Avoidance Action Trust) benefited from the 363

Sale purchase price in the form of equity in New GM; it defies logic to pretend that the 363 Sale had never occurred when the Plaintiff has in fact already benefited from it. (*See* JPTO ¶ 36.)

2. The Public Policy Subsidy Should Be Excluded from the Valuation

While the Court holds that going-concern value is the appropriate premise of valuation, that does not bind the Court to value the collateral at the sale price. All parties agreed at trial that the U.S. Government paid a significant amount over and above the price that a private market participant would have paid to acquire the bulk of Old GM's assets. (*See* Hubbard Direct Section IV.D; Fischel Direct ¶ 94.) The Public Policy Subsidy, which represents the above-market portion of the 363 Sale price, should not be included in the Court's valuation of the assets sold to New GM. *See Reg'l Rail*, 445 F. Supp. at 1014.

The Plaintiff's solution to this problem was to instruct its valuation expert to imagine that the 363 Sale had never taken place and to value the Representative Assets according to a hypothetical scenario in which Old GM was liquidated. (*See* Goesling Direct ¶ 387 ("I was asked to assume that, absent a substantial government subsidy, Old GM would have been unable to continue as a going concern.") But, unlike *Regional Rail*, liquidation is not the only measurable alternative to using the full sale price including the Public Policy Subsidy. The Defendants presented the Court with their preferred alternative to liquidation value: KPMG's RCNLD values (before the application of the TIC Adjustment). The Defendants argue that Hubbard can accurately calculate the value of the Public Policy Subsidy based on two public statements by government officials, and that if Hubbard is right, the TIC Adjustment was unnecessary. The Defendants also attack the TIC Adjustment through Lakhani's testimony, criticizing KPMG's contemporaneous valuation decisions.

The Court declines both alternatives presented by the parties. The Plaintiff presented its experts with counterfactual assumptions and asked them to value a liquidation transaction that

was never planned and never took place. On the other hand, the Defendants ask the Court to credit only part of KPMG's work, disregarding the TIC Adjustment in favor of the intermediate RCNLD values. The Court is not bound to choose either option wholesale. *See Patterson,* 375 B.R. at 144. For the below reasons, the Court finds that KPMG's Final Fair Values are the best available method to calculate the value of the Representative Assets sold to New GM, while excluding the non-market Public Policy Subsidy.

a) Defendants' Arguments that the TIC Adjustment Should be Disregarded are Without Merit

SW Boston held that the sale price should be used to determine collateral value "*so long as the sale price is fair and is the result of an arm's-length transaction*." *SW Boston Hotel Venture*, 748 F.3d at 411 (emphasis added). While it is true that arm's-length negotiations took place, Defendants concede that the 363 Sale did not result in a fair market price because the government paid a Public Policy Subsidy. (*See* Hubbard Direct Section IV.D; Fischel Direct ¶ 94.) The Court agrees with the cases on which Defendants rely, which hold that replacement value and the cost approach are appropriate methods to calculate collateral value. *See, e.g.*, *United States v. Certain Prop. Located in Borough of Manhattan, City, County and State of New York*, 388 F.2d 596, 600–01 (2d Cir. 1967), *on reh'g in banc* (Jan. 24, 1968) (stating that evidence of "the current cost of comparable new fixtures less an appropriate allowance for deterioration from use and obsolescence" is ordinarily sufficient to value collateral); *In re Grind Coffee*, 2011 WL 1301357, at *8 (holding that the cost approach was the "most reasonable estimate of market value" because of the lack of comparable sales data); *In re Hand*, 2009 WL 1306919, at *15 (Bankr. D. Mont. May 5, 2009) (holding that the "cost approach" was more reliable than the "sales comparison approach" when comparable sales data was limited).

Where the Defendants' argument falls short, however, is in the leap from cases approving the use of RCNLD and the cost method to the conclusion that the TIC Adjustment must be disregarded. The TIC Adjustment was part and parcel of KPMG's application of the cost method. As discussed above in Section IX at 162–63, KPMG's work was not completed until after the application of the TIC Adjustment and Balance Sheet Adjustment. In fact, the goal of the TIC Adjustment was to take into account that "the individual assets *cannot be valued at less than what they could be sold for on an individual basis in the open market*." (DX-141 at 116 (emphasis added).) If the 363 Sale price were an accurate indicator of the assets' value "in the open market," there would have been no need for the TIC Adjustment. But KPMG appreciated the exact problem the Court now faces: the 363 Sale price was *not* a market price, and the amount of the non-market Public Policy Subsidy should *not* be attributed to individual assets. The TIC Adjustment was KPMG's solution. The Court finds that the TIC Adjustment (including the subsequent Balance Sheet Adjustment) is the best available method supported by the evidence introduced at trial for removing the above-market value of the Public Policy Subsidy from the valuation of the Representative Assets.

b) Lahkani's Criticisms of KPMG's Valuation Process Are Unwarranted

The Court is guided by the principle, long recognized in the case law, that contemporaneous analysis not prepared for the purpose of litigation—absent indicia that it is unreasonable—is often more reliable than projections or other analysis performed years later. *See In re Lyondell Chem. Co.*, 567 B.R. 55, 112 (Bankr. S.D.N.Y. 2017) ("Expert analysis by investment bankers that confirms the validity of management's projections is an indicator of reasonableness.") (quoting *In re Iridium Operating LLC*, 373 B.R. 283, 348 (Bankr. S.D.N.Y. 2007). In *Lyondell*, this Court placed considerable weight on "contemporary, informed opinion"

as to a company's value, largely discounting litigation-prepared projections in favor of the reasonable projections prepared by management at the time of the disputed transaction and relied upon by investment banks. *See id.* at 111–12. Much as private banks relied on the contemporaneous projections in *Lyondell*, New GM relied on the KPMG Report as part of its fresh start accounting that underlies New GM's financial reporting since 2009. No evidence was presented at trial to convince the Court that KPMG's contemporaneous valuation work was unreasonable at the time.

Lakhani opines, essentially, that he would have made different professional judgments if he had been in charge of KPMG's valuation exercise. His arguments that KPMG should not have made certain intracompany allocations in its calculation of GMNA's TIC are mostly based on his own judgments after the fact, not on contemporaneous data showing that the reallocations were wrong. Lakhani noted that KPMG had access to information from New GM management upon which it based the reallocations. (Trial Tr. (Lakhani) at 1678:7–15.) Without something more specific than Lakhani's own judgment to rely on, the Court will not second-guess KPMG's contemporaneous decision, made after in-depth review of management-provided data and its own analysis. It was reasonable for KPMG to rely on information provided by New GM in reaching its professional opinions. Lakhani's criticisms of the other two reallocations he challenges as a matter of "professional judgment" fail for the same reason.

The Court is equally unpersuaded by Lakhani's attack on the TIC Adjustment as an application of "negative goodwill." Lahkani's finding that KPMG incorrectly applied negative goodwill is based on a single column header in a work paper, which Furey testified did not refer to negative goodwill in the accounting sense, but was shorthand for KPMG's calculation of TIC-based economic obsolescence. (Trial Tr. (Furey) at 1548:21–1549:4.) The Court is convinced

by the evidence at trial that the TIC Adjustment was an important aspect of KPMG's calculation of economic obsolescence, not a post-fair-value step that can be separated as a "goodwill" calculation. *See Certain Prop. Located in Borough of Manhattan*, 388 F.2d at 600–01 (calculation of deterioration for "use and obsolescence" is appropriate).

For this reason, it also makes sense that KPMG applied the TIC Adjustment only to those categories of PP&E that had been valued using the cost approach, not the market approach. (*See* DX-141 at 142–43.) The TIC Adjustment was part of KPMG's economic obsolescence calculation under the cost approach. Because the cost approach begins with replacement cost, not outside market factors, economic obsolescence factors (such as the TIC Adjustment) must be applied after the RCNLD is calculated. (*Id.* at 142.) In contrast, the market approach "inherently" captures all forms of economic obsolescence, obviating the need for additional adjustments. (*Id.* at 143.) Applying the TIC Adjustment across all categories of PP&E, as Lakhani urges, would over-correct the economic obsolescence of assets valued using the market approach, and under-correct the economic obsolescence of assets valued using the cost approach.

c) Hubbard's Attempts to Calculate the Value of the Public Policy Subsidy are Speculative

The Court is not persuaded that Hubbard (or anyone) is capable of calculating the amount of the Public Policy Subsidy based on the isolated public statements of two government employees. Hubbard's opinion purports to extrapolate the implied equity value of New GM from two statements in the public record, and then the implied equity value of GMNA from there. Hubbard opines that by subtracting the portion of the 363 Sale price that the U.S. Government paid to achieve its public policy goals (in other words, the Public Policy Subsidy), the remaining portion of the 363 Sale price is an accurate reflection of the market value of the U.S. Government's interest in New GM. But even if Hubbard could reliably determine the value

of the Representative Assets from the implied common equity value of New GM, his opinion rests on a faulty premise. The statements upon which Hubbard bases his testimony are isolated, subjective, and in the case of Ron Bloom, not even specific to GM. (*See* JX-21 at 138 (discussing "government funding for new GM *and new Chrysler*").) Hubbard makes the extraordinary assumption that not only do these two statements accurately capture the total amount of funding the U.S. Government did not expect to recoup, but that the government was acting as a "private investor" with regard to the remainder of the purchase price. (*See* Hubbard Direct ¶ 82.)

The 363 Sale was an extraordinary transaction in nearly every way. The U.S. Government's intervention in the auto industry was in many ways unprecedented. *See supra*, Section II at 10–11. On the record currently before the Court, it is impossible to tease out a clear delineation between the portion of the purchase price that reflected public policy goals, and the portion that a private investor would have paid, based on the statements of the government. What the government was willing to pay to achieve its public policy goals may or may not have had a close arithmetic relationship with the market value of New GM's assets, as Hubbard opines. The Court will not rely on isolated public statements regarding the government's intentions to work backwards toward a market-based valuation, especially when there is competent evidence of a contemporaneous DCF valuation.

d) Hubbard's and Keller's Attacks on KPMG's WACC Are Unsupported Hindsight

Hubbard calculated an alternative WACC for New GM as a whole, and "assumed" that GMNA and New GM shared the same WACC because GMNA constituted the "vast bulk" of New GM. (Trial Tr. (Hubbard) at 2400:10–2401:5.) Even if this were true, Hubbard has not shown that KPMG's WACC was not appropriate. Hubbard primarily attacks KPMG's use of a

CSRP to capture risks facing New GM as it emerged from bankruptcy, arguing that if KPMG was so skeptical of New GM's projections, it should have discussed lowering the projections rather than use a CSRP. Notably, Hubbard does not address how KPMG should have lowered the forecasts or what the effect of such lowered forecasts would have been on the valuation of the Representative Assets. Keller fills this gap by opining that New GM's projections were indeed reliable and that KPMG need not have applied a downward adjustment through the CSRP and WACC.

Hubbard and Keller both downplay the risks that New GM faced, essentially arguing in hindsight that KPMG's assessment of New GM's risks was overblown. Hubbard compares KPMG's New GM WACC to New GM's peer companies, concluding that New GM's WACC was unreasonably high when benchmarked against its peers. (Hubbard Direct ¶¶ 11, 122, 124.) But Hubbard does not address that New GM, emerging from one of the largest and most unique bankruptcies in U.S. history during a period in which the U.S. economy was in a free-fall, faced risks that its peer companies did not face. And Keller dismisses out of hand most of the risks detailed in the KPMG Report on the basis that the bankruptcy would be beneficial to New GM. For example, Keller characterized New GM's restructuring risks as low because the government was "unlikely to interfere" in New GM's management. But Keller cites only a single document to support this proposition—a statement of principles from the government asserting that the government would not interfere with "day-to-day company operations" and would behave in a "hands-off, commercial manner." (Keller Direct ¶ 105 (citing DX-142 at 74).) Vague statements such as that do not outweigh the fact that New GM was in uncharted waters. In such unique circumstances and with no way to know what New GM's emergence from bankruptcy

would actually look like, the Court finds that KPMG was not unreasonable in applying the risk assessments and CSRP, and consequently the WACC.

3. The KPMG Final Fair Value Amounts Are the Best Available Valuation of the Assets Sold to New GM

For the reasons stated above, the Court finds that the appropriate valuation of the Representative Assets sold to New GM is the KPMG Final Fair Values. Those assets were intended to be used as part of a going-concern business and should be valued accordingly. The KPMG Report offers the best available method of calculating the assets' value, according to the cost approach, while excluding the Public Policy Subsidy. The Court's findings of fact with respect to the value of each of the Representative Assets is set forth in Table A appended to this Opinion.

a) The Danly Press

Asset No. 31, the Danly Press, was sold to New GM but—for reasons that are unclear based on the evidence presented at trial—was not valued by KPMG. (*See* DX-365 (listing the Danly Press as "removed from analysis" and not containing a concluded value for that asset).) Like the other Representative Assets sold to New GM, the Danly Press should be valued under a going concern premise of value, taking into account not only the replacement cost and depreciation of the asset (as Chrappa does), but also the limitations of the earnings power of the business and the economic climate of the Great Recession (as KPMG did). The Court is unwilling to fall back on Goesling's OLVIE analysis, which was conducted on a liquidation premise and therefore undervalues the Danly Press; but neither is the Court willing to use Chrappa's appraisal value, which was conducted with an assumed earnings analysis and thus overvalues the Danly Press. Accordingly, the Court finds it appropriate to apply a reduction to Chrappa's appraisal value consistent with the TIC Adjustment applied to KPMG's RCNLD

values. The Court finds the value of the Danly Press to be $396,000: $800,000 (Chrappa's appraised value) minus a 55% reduction (the amount of the TIC Adjustment).

B. The Assets Not Sold to New GM Should Be Valued According to Goesling's OLVIE Analysis

It is undisputed that the assets not sold to New GM as part of the 363 Sale were intended to remain with the Motors Liquidation estate and be liquidated within one to two years. (*See* Chrappa Direct ¶ 34.) Accordingly, liquidation is the appropriate valuation premise. Unlike the assets that were sold to New GM, as to which the Court must disentangle the Public Policy Subsidy from the market value, the assets which were not sold pose no such problem. Goesling's OLVIE analysis is a particularly reliable method of calculating the liquidation value for the Representative Assets because it incorporates both the cost and market approaches. *See supra* Section IX at 181. Liquidation value comports with the proposed disposition of the assets on the Valuation Date that were not intended for sale to New GM, and the OLVIE analysis is based in actual cost and market data, not hypotheticals.

As discussed in more detail above, the Court finds Goesling to be a qualified and credible expert witness regarding matters of equipment appraisal. While the Court is critical of his choice to base his entire appraisal on the hypothetical assumption that the 363 Sale had never gone forward, the Court notes that that assumption was presented to Goesling by counsel. While OLVIE is not appropriate for the assets whose proposed disposition was to be sold in the 363 Sale, the Court finds that OLVIE is the appropriate valuation method for the assets that were not part of the 363 Sale. The Court has significant flexibility to choose the best available valuation method. *See Patterson*, 375 B.R. at 144. The Court opts to use that flexibility by relying upon Goesling's OLVIE analysis for only those assets that were not sold to New GM.

XI. CONCLUSION

The Court's Opinion sets forth in considerable detail the findings of fact and conclusions of law with respect to each of the Representative Assets. The Court's conclusions, whether each asset is a fixture and, if so, its value, are summarized in Table A below.

Dated: September 26, 2017
New York, New York

Martin Glenn

MARTIN GLENN
United States Bankruptcy Judge

Table A: Specific Conclusions of Value for Each Asset

Asset No.	Asset Description	Sold to New GM	Fixture	Source of Valuation	Value
1	OP-150 Shims Station	Yes	Yes	KPMG Fair Value	$117,942
2	Pits & Trenches	Yes	Yes[1]	KPMG Fair Value	$1,219,221
3	Power Zone Conveyor	Yes	Yes	KPMG Fair Value	$315,441
4	Electro-Coat Paint Operations ("ELPO") Waste System	Yes	Yes[2]	KPMG Fair Value	$493,319
5	Paint Circulation Electrical System	Yes	Yes	KPMG Fair Value	$843,463
6	ELPO Oven Conveyor	Yes	Yes	KPMG Fair Value	$549,178
7	Top-Coat Software	Yes	No	N/A	N/A
8	Paint Mix Room	Yes	No	N/A	N/A
9	Top-Coat Bells	Yes	Yes	KPMG Fair Value	$1,246,182
10	Opticell Robotic System	Yes	No	N/A	N/A
11	Central Utilities Complex	Yes	Partial[3]	N/A	N/A[4]
12	Overhead Body Shop Welding Robot	Yes	Yes	KPMG Fair Value	$8,630
13	Weld Bus Ducts	Yes	Yes	KPMG Fair Value	$1,836,906
14	Leak Test Machine	Yes	Yes	KPMG Fair Value	$357,753
15	Soap, Mount and Inflate System	Yes	Yes	KPMG Fair Value	$797,390
16	Skid Conveyor	Yes	Yes	KPMG Fair Value	$1,237,948
17	Power and Free Conveyor	Yes	Yes	KPMG Fair Value	$818,853

[1] The parties agree that Representative Asset No. 2 is a fixture.

[2] The parties agree that Representative Asset No. 4 is a fixture.

[3] The parties agree that the portions of the CUC consisting of ordinary building materials are realty and not a fixture. The Court finds that the rest of the CUC, including the CUC Systems, is a fixture.

[4] KPMG determined the value of the portions of the CUC the Court rules are fixtures to be $23,017,383. However, that value was based on New GM's free and clear ownership of the CUC, *not* Old GM's residual rights in the CUC. For the reasons discussed above in Section VII, the Court finds that there was not enough evidence presented at trial to determine the value of Old GM's residual rights in the CUC.

Asset No.	Asset Description	Sold to New GM	Fixture	Source of Valuation	Value
18	Vertical Adjusting Carriers	Yes	Yes	KPMG Fair Value	$2,036,052
19	Full Body Coordinate Measurement Machine	Yes	Yes	KPMG Fair Value	$155,820
20	Wheel & Tire Conveyor	Yes	Yes	KPMG Fair Value	$569,821
21	Final Line Skillet Conveyor	Yes	Yes	KPMG Fair Value	$732,989
22	Fanuc Gantry Robot	Yes	Yes	KPMG Fair Value	$71,829
23	Aluminum Machining System	Yes	Yes	KPMG Fair Value	$491,531
24	Base Shaping Machine	Yes	Yes	KPMG Fair Value	$303,279
25	Liebherr Hobb Machine	Yes	Yes	KPMG Fair Value	$336,977
26	Core Delivery Conveyor System	Yes	Yes	KPMG Fair Value	$51,433
27	Emissions System	Yes	Yes	KPMG Fair Value	$1,609,636
28	Holding Furnace	Yes	No	KPMG Fair Value	N/A
29	GG-1 Transfer Press (Grand Rapids)	No	Yes	Goesling OLVIE	$261,000
30	TP-14 Transfer Press (Mansfield)	No	Yes	Goesling OLVIE	$800,000
31	Danly Press	Yes	Yes	Chrappa with 55% reduction	$396,000
32	AA Transfer Press	Yes	No	N/A	N/A
33	B3-5 Transfer Press	Yes	No	N/A	N/A
34	Build Line w/ Foundation	Yes	Yes	KPMG Fair Value	$179,890
35	Button Up Conveyor System	Yes	Yes	KPMG Fair Value	$785,571
36	Helical Broach	Yes	Yes	KPMG Fair Value	$372,185
37	Courtyard Enclosure	Yes	No	N/A	N/A
38	Gas Cleaning System	Yes	Yes	KPMG Fair Value	$87,411
39	Core Box Robot[5]	Yes	Yes	N/A	N/A
40	Charger Crane	Yes	Yes	KPMG Fair Value	$64,988

[5] The parties agreed not to present evidence of the Core Box Robot's value at trial.