SPONSOR: Mark Kalwinski 1st District Councilman

ORDINANCE NO. 9496

ORDINANCE ESTABLISHING ECONOMIC IMPROVEMENT DISTRICT AND AUTHORIZING AND APPROVING OTHER ACTIONS WITH RESPECT THERETO (as amended)

WHEREAS, a petition (the "Petition") for the establishment of an economic improvement district in the City of Hammond, Indiana ("City") under Indiana Code 36-7-22 (the "Act") has been filed with the Common Council of the City (this "Common Council") to facilitate additional privately funded debt financing for the adaptive rehabilitation of the shuttered large coalincinerating power plant into an anticipated 400,000 square foot, 40 MW data center campus infrastructure and utility facility that brings significant fiber assets to the City and provides access to new telecommunication services to support business recruitment and development in the City, (collectively referred to as the "Data Center") which includes the completion of the construction of the 105,000 interior square foot, 3MW "Proof of Concept" building with its technology offices (the "Building 1") as provided in IC 36-7-22-22 (such additional privately funded debt financing, the "EID Bonds");

WHEREAS, the Petition included the following information: (1) the boundaries of a proposed economic improvement district, including the boundaries of any zones to be established under Section 5(b) of the Act; (2) the name and address of each parcel and owner of land within the proposed economic improvement district and a description of the existing land use and zoning classification of each parcel; (3) a detailed description of the economic improvement project to be carried out within the proposed economic improvement district, the estimated cost of the economic improvement project and the benefits to accrue to the property owners within the economic improvement district; (4) a plan for the application of assessment revenue to the cost of the economic improvement project within the economic improvement district; (5) a proposed formula for determining the percentage of the total benefit to be received by each parcel of real property within the economic improvement district, in the manner provided by Section 5 of the Act; (6) the number of years in which assessments will be levied; and (7) a proposed list of members for the economic improvement board;

WHEREAS, this Common Council published notice (the "Notice") of a public hearing on February 8, 202† (the "Hearing"), on the proposed economic improvement district and mailed a copy of the Notice to each owner of real property within the proposed economic improvement district;

WHEREAS, at the Hearing, this Common Council heard all owners of real property in the proposed economic improvement district (who appeared and requested to be heard) upon the questions of: (1) the sufficiency of the Notice; (2) whether the proposed economic improvement project is of public utility and benefit; (3) whether the formula to be used for the assessment of special benefits is appropriate; and (4) whether the economic improvement district contains all, or more or less than all, of the property specially benefited by the proposed economic improvement project;

WHEREAS, at the Hearing, this Common Council received and considered evidence of the benefits from the Data Center accruing to the parcels of real property within the City, and within the economic improvement district, based on the following:

- (a) proximity of each parcel to the Data Center;
- (b) accessibility of each parcel to the Data Center;
- (c) true cash value of each parcel;

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- (d) true cash value of any improvement on each parcel;
- (e) age of any improvement on each parcel;
- (f) other similar factors, including without limitation the special benefits accruing to each real property owner receiving financing facilitated by the Board (defined below);
- (g) the varying benefit of the Data Center from one area to another; and
- (h) the need to retain and develop various land uses;

WHEREAS, in the process leading to the passage of HRC Resolution 19-3 dated February 5, 2019 ("HRC TIF Resolution") that authorized the pledge of certain tax increment financing revenues ("TIF Revenues") to the payment of the principal of and interest on certain 2019 bonds ("TIF Bonds"), HRC, pursuant to Indiana Code 36-7-14, as amended (the "Redevelopment Act"), had adopted a declaratory resolution on July 28, 1989 (as subsequently confirmed and amended, the "Redevelopment Declaratory Resolution") designating an area known as the Marina Redevelopment Area (the "Redevelopment Area") as an "area needing redevelopment" pursuant to the Redevelopment Act, designating a portion of the Redevelopment Area as an allocation area known as the State Line Allocation Area (the "State Line Allocation Area") and approving an amendment to the North Hammond Redevelopment Plan (the "Redevelopment Plan") for the Marina Redevelopment Area;

WHEREAS, the process leading to the passage of HRC TIF Resolution, the HRC, pursuant to Sections 15-17.5 of the Redevelopment Act, the HRC amended the Redevelopment Declaratory Resolution and the Redevelopment Plan on October 16, 2018 to (a) designated each of the Petitioner 1 and Petitioner 2 as a "Designated Taxpayer" for purposes of IC 36-7-14-39.3; and (b) added the Data Center to the Redevelopment Plan as a redevelopment project (collectively, the "HRC Redevelopment Plan Amendment");

WHEREAS, pursuant to Section 2(a) of the Redevelopment Act, the redevelopment of areas needing redevelopment are by law "public uses and purposes";

WHEREAS, pursuant to Section 2(b) of the Redevelopment Act, the City is required, to the extent feasible under Redevelopment Act and consistent with the needs of the City as a whole, afford a maximum opportunity for rehabilitation or redevelopment of areas by private enterprise;

WHEREAS, in the process leading to the passage of HRC Resolution, the HRC further contemplated as confirmed in the Amendment for the Hammond Marian Redevelopment Area:

Stateline Allocation Area – Report on Economic and Tax Impact Analysis prepared Cender & Company dated January 22, 2019 ("Cender & Company Economic And Tax Impact Analysis") that the Data Center would:

- (a) create an environment conducive to new private investment and business expansion within, adjacent to and within proximity of the EID District consistent with a prior plan of development approved by the HRC;
- (b) provide and promote significant opportunities for gainful employment of City and regional residents through business retention, expansion and attraction; and
- (c) be a public utility and benefit through an improved and diversified economic base of the City;

WHEREAS, based upon the process leading to the passage of the HRC Resolution it is reasonable to conclude that all of the improvements made for the Data Center in the EID District are "local public improvements" as contemplated under IC 36-7-14-39(b)(3);

WHEREAS, The City of Hammond Economic Development Commission (the "HEDC") determined that all of the improvements made for the Data Center in the EID District are all "economic development facilities" as contemplated under IC 36-7-11.9-3 and approved the TIF Bonds used to fund the construction of Building 1 all as defined and contemplated in HEDC Resolution 19-01 dated February 4, 2019 (the "HEDC TIF Resolution");

WHEREAS, as set forth in the HEDC TIF Resolution, the HEDC determined that the diversification of industry, the creation of the business opportunities and creation for gainful employment attributable to the Data Center within the jurisdiction of the City is desirable, serves a public purpose, and is of benefit to the health and general welfare of the City; and that it is in the public interest that the City take action as it lawfully may to encourage the diversification of industry, creation of business opportunities, and creation of opportunities for gainful employment attributable to the Data Center within the jurisdiction of the City;

WHEREAS, the City confirmed the findings of HRC and HEDC set forth above, and further found that all of the improvements made for the Data Center will be of benefit to the health, prosperity, economic stability and general welfare of the City and its citizens all as defined and contemplated in City Amended Ordinance No.9432 dated February 11, 2019 ("City Amended Ordinance");

WHEREAS, based upon the foregoing it is reasonable to conclude that all of the improvements made for the Data Center in the EID District shall be:

- (a) for "public uses and purposes" as contemplated under IC 36-7-14-2(a); and
- (b) of "public utility and benefit" as contemplated under IC 36-7-22-6(b)(2);

WHEREAS, the EID Debt, and the interest payable thereon, shall not represent or constitute a debt of the City, the State of Indiana ("State") or any political subdivision or taxing authority thereof within the meaning of the provisions of the constitution or statutes of the State or a pledge of the faith and credit of the City or the State or any political subdivision or taxing authority thereof;

WHEREAS, neither the faith and credit nor the taxing power of the City, the State or any political subdivision or taxing authority thereof shall be pledged to the payment of the principal of, premium, if any, or the interest on the EID Debt; and

WHEREAS, the EID Debt shall not grant the owners or holders thereof any right to have the City, the State or its general assembly, or any political subdivision or taxing authority of the State, levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the EID Bonds.

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF HAMMOND, LAKE COUNTY, INDIANA:

SECTION 2 This Common Council hereby determines that:

- (a) the Petition meets the requirements of Sections 4, 5 and 7 of the Act;
- (b) the Data Center to be undertaken in the District (as hereinafter defined) will provide special benefits to property owners in the District and will be of public utility and benefit;
- (c) the benefits provided by the Data Center will be new benefits that do not replace benefits existing before the establishment of the District;
- (d) the formula to be used for the assessment of benefits is appropriate;
- (e) the Petition has been signed by (a) a majority of the owners of real property within the District; and (b) the owners of real property constituting more than 50% of the assessed valuation in the District ((i) excluding the signatures of any persons whose property would be exempt from assessments under this Ordinance, and (ii) excluding, in determining the total assessed valuation in the proposed economic improvement district, the assessed valuation of any property that would be exempt from assessment under this Ordinance);
- (f) the benefit of the Data Center varies from one area to another within the District from time to time and three zones must be established within the District to delineate the approximate difference in beneficial impact; and
- (g) the retention or development of various land uses within the District must be encouraged.
- SECTION 3 An economic improvement district under the Act shall be, and hereby is, established (such economic improvement district, the "District"), which District is hereby designated the "DX Hammond Economic Improvement District".
- SECTION 4 The boundaries of the District shall consist of approximately 67.52 acres of real property more fully specifically described in the legal description and the plat attached hereto and incorporated by reference herein as **Exhibit A**. ("**District Plat**")

- SECTION 5 The area designated as "Exception Area" in the District Plat, specifically Exception Area #1, Exception #2, and Exception #3, has been excluded from the EID District ("Exception Area").
- SECTION 6 The following three zones under Section 5(b) of the Act shall be, and hereby are, established:
 - (a) a zone comprised of the real property identified and more fully specifically described on the plat attached hereto as <u>Exhibit B</u> ("Zone 1 Plat") which is not exempt from assessment under this Ordinance ("Zone 1");
 - (b) a zone comprised of the real property identified and more fully specifically described on the plat attached hereto as <u>Exhibit C</u> ("Zone 2 Plat") which is not exempt from assessment under this Ordinance ("Zone 2"); and
 - (c) a zone comprised of the real property identified and more fully specifically described on the plat attached hereto as **Exhibit D** ("**Zone 3 Plat**") which is exempt from assessment under this Ordinance ("**Zone 3**" and with Zone 1 and Zone 2, each a "**Zone**" and together the "**Zones**")
- SECTION 7 The boundaries of each respective Zone set forth in the Zone 1 Plat, the Zone 2 Plat and the Zone 3 plat shall be the boundaries of each respective Zone within the District.
- SECTION 8 The completion of the Data Center within the EID District will include and consist of (each individually referred to as a "DX Hammond Economic Improvement Project" and collectively referred to "DX Hammond Economic Improvement Projects"):
 - (a) planning and managing development and improvement activities for the improvements made for the Data Center as contemplated in IC 36-7-22-3(1) and as more specifically described in **Exhibit E** (collectively referred to as "**Planning and Managing Development and Improvement Activities**");
 - (b) designing, landscaping, beautifying, constructing or maintaining lighting, infrastructure, utility facilities, improvement, and equipment, water facilities, improvements, and equipment, sewage facilities, improvements, and equipment, and streets all made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(2) and as more specifically described in **Exhibit E** and **Exhibit F** attached (collectively referred to "**Public Improvements**");
 - (c) promoting the commercial activities of financing, developing, constructing, staffing, marketing, renting-up, managing, operating, maintaining, repairing and sustaining all of the improvements for the Data Center located in the EID District as contemplated in IC 36-7-22-3(3) and as more specifically described in **Exhibit E** attached (collectively referred to "**Commercial Activity**");
 - (d) supporting the business recruitment within the EID District that is attributable to all of the improvements made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(4) and as more specifically described in **Exhibit E** and **Exhibit G** attached (collectively referred to "Business Recruitment");

- (e) supporting the business development within the EID District that is attributable to all of the improvements made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(4) and as more specifically described in **Exhibit E** attached (collectively referred to as "**Business Development**"); and
- (f) acquiring, constructing, or maintaining parking facilities for the Data Center located in the EID District as contemplated in IC 36-7-22-3(6) and as more specifically described in **Exhibit E** attached (collectively referred to "**Parking Facilities**").
- SECTION 9 The detailed descriptions and estimated cost of all the current anticipated DX Hammond Economic Improvements Projects to be carried out in each Zone are set forth in **Exhibit E**, **Exhibit F** and **Exhibit G** attached.
- SECTION 10 It is anticipated the building owners and other tenants owning property in the initial development of EID District will have access to and benefit from the completion of the following elements of DX Hammond Economic Improvement Projects (collectively referred as "Initial Data Center Development"):
 - (a) The shell and core infrastructure for the 105,000 square feet Building 1 Data Center first building in the EID District;
 - (b) The shell and core infrastructure for the 210,000 square feet building ("Building 2") Data Center in the EID District;
 - (c) A 12MW critical/18MW Data Center utility facility with available back-up generator system required by Fortune 100 Data Center customers in Building 1;
 - (d) A 27MW critical/40.50MW available Data Center utility facility with back-up generator system required by Fortune 100 Data Center customers in Building 2;
 - (e) A 20+MW power plant sub-station utility facility in the EID District for primary power usage that will start the power consumption plan for the entire site for Building 1 and a portion of Building 2;
 - (f) An additional 84+MW power plant sub-station utility facility in the EID District for primary power usage that will complete the power consumption plan for the entire site;
 - (g) A primary closed-loop water cooling utility system to cool each Data Center building;
 - (h) A back-up closed-loop water cooling utility system for each Data Center building:
 - (i) Parking and security fencing for the entire Data Center;
 - (j) Full certification and commissioning of the each building in the Data Center, including all the elements required to complete the Data Center campus; and

(k) A 1728 strand fiber optics utility network that connects the Data Center to the downtown Chicago superhub. This will result in direct fiber connection to the following carriers:

Tier 1 Fiber Providers:

- (1) Zayo
- (2) Wide Open West
- (3) Crown Castle
- (4) Windstream
- (5) CenturyLink/Level 3
- (6) Comcast
- (7) ATT
- (8) US Signal
- (9) Telia Carrier
- (10) Verizon

Tier 2 Service Providers:

- (11) NYI
- (12) Cincinnati Bell (Legacy ATT)
- (13) Consolidated Telephone
- (14) Comcast
- (15) Everstream
- (16) Colt
- (17) Megaport
- (18) 365 Data Centers
- (19) Segra
- (20) Hurricane Electric
- (21) Metronet
- (22) Cogent
- (23) Hibernia Networks
- (24) Telia
- (25) SDN Comm
- (26) Verizon Business
- (27) Crown Castle
- (28) Independent Fiber Networks
- (29) China Telecom
- (30) ATT
- (31) Centurylink
- (32) SHAW
- (33) Fusion
- (34) RCN
- (35) Atlantic Metro
- (36) GTT
- (37) Hypercore.

SECTION 11 Zone 3 will be used to expand the Data Center beyond the Initial Data Center Development in the near future. Zone 3 will be not benefit from the Initial Data Center

Development made in the EID District until such anticipated development expansion begins in the new future.

SECTION 12 The HRC will benefit from the new property taxes to be derived from the EID District in excess of the taxes attributable to the base assessed value of the property in the EID District that will enable the HRC to pay debt service on bonds issued under IC 36-7-14.25.1, or to make payments or provide security on leases payable under IC 36-7-14-25.2, in order to provide public improvements in the EID District.

SECTION 13 Each owner of a building in a Zone will benefit from its ability to obtain funding from the Board to finance the cost of DX Hammond Economic Improvement Projects made in the Zone by such owner based upon the Special Assessments (defined below) paid by such owner using the financing structure allowable under IC 36-7-22-22.

SECTION 14 The EID District was a vacant property prior to the development of the Data Center.

SECTION 15 The benefits provided by completion of all the improvements made for the Data Center are all new benefits and will not replace benefits existing before the establishment of the EID District and the completion of DX Hammond Economic Improvements Projects.

SECTION 16 The assessment revenues to be collected and deposited into the Economic Improvement Fund (defined below) for the Board shall be done on a Zone by Zone basis ("Special Assessments"). The Board shall establish, have and maintain subaccounts within the Economic Improvement Fund in which the Special Assessments for each Zone shall be assessed, collected and deposited by the Board ("Economic Improvement Fund"). The Board shall have a December 31st fiscal yearend ("Fiscal Year").

SECTION 17 The amount of the assessment revenue collected from each Zone shall be based solely upon the amount of annual Special Assessments necessary for each Fiscal year to (a) cover the annual cost of the Board operating the EID District allocated by the Board to each Zone, and (b) make the annual payment of all or a portion of the debt service and other related expenses on bonds issued to fund all or a portion of the cost of DX Hammond Economic Improvement Projects in such Zone as determined by the Board ("EID Bonds"), including but not limited to the payment of debt service for any bonds issued by the Board, HRC, HEDC or the City to support new DX Hammond Economic Improvement Projects made for a respective Zone (collectively referred as the "Method of Determining Annual Special Assessment Amount"). The annual cost of the Board operating the EID District shall be allocated to a Zone by the Board based on a Zone's percentage of the total remaining outstanding EID Bonds issued for the EID District as of January 1 of each Fiscal Year.

SECTION 18 EID Bonds will not be issued for Zone 3 until an amendment to this Ordinance is passed by the City in accordance with the Act, subject to the prior written consent Sam Townline Development, Inc, and its successor and assigns ("collectively referred to as the "STD") and DX Hammond OpCo, LLC and its successor and assigns ("collectively referred to as the "Developer")

SECTION 19 The EID Bonds, and the interest payable thereon, shall not represent or constitute a debt of the City, the State of Indiana ("State") or any political subdivision or taxing

authority thereof within the meaning of the provisions of the constitution or statutes of the State or a pledge of the faith and credit of the City or the State or any political subdivision or taxing authority thereof.

- SECTION 20 Neither the faith and credit nor the taxing power of the City, the State or any political subdivision or taxing authority thereof shall be pledged to the payment of the principal of, premium, if any, or the interest on the EID Bonds; The EID Bonds shall not grant the owners or holders thereof any right to have the City, the State or its general assembly or any political subdivision or taxing authority of the State, levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the EID Bonds.
- SECTION 21 The EID Bonds shall not grant the owners or holders thereof any right to have the City, the State or its general assembly or any political subdivision or taxing authority of the State, levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the EID Bonds.
- SECTION 22 The Method of Determining Annual Special Assessment Amount shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- SECTION 23 The Special Assessment for a Zone shall only be applied and used to (a) cover the annual cost of the Board operating the EID District allocated to the Zone by the Board, and (b) make the annual payment of all or a portion of the debt service and other related expenses on EID Bonds issued for the cost of design, development and construction of the DX Hammond Economic Improvement Projects in the Zone (collectively referred to as the "Method of Application of Special Assessment").
- SECTION 24 The Method of Application of Special Assessment shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- SECTION 25 The entire amount of proceeds from the EID Bonds issued to fund all or a portion of the cost of the DX Hammond Economic Improvement Projects in the Zone shall be allocated to the Zone in which such improvements are made after all expenses and costs are paid with respect to the issuance of such EID Bonds and compliance with the Act (collectively referred to as the "Method of Allocation of EID Bonds Proceeds").
- SECTION 26 The Method of Allocation of EID Bonds Proceeds shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- SECTION 27 The proceeds from the EID Bonds allocated to a Zone shall only be used to reimburse or fund cost incurred by the owner of a DX Hammond Economic Improvement Project in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by the EID Bonds (collectively referred to as the "Allowable Use of EID Bond Proceeds").

- SECTION 28 The Allowable Use of EID Bond Proceeds shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- SECTION 29 Effectively 100% of Special Assessments collected from a Zone shall benefit the Zone from which it is collected and enables the completion of all or a portion of the DX Hammond Economic Improvement Projects made in the Zone that are funded by an EID Bonds.
- SECTION 30 The annual Special Assessments for each Zone shall be allocated to and paid by each real property owner in the Zone to the Board based upon the percentage of the total cost of the DX Hammond Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone relative to the total cost of the DX Hammond Economic Improvement Projects funded by the EID Bonds in the Zone as determined by the Board as of each EID Bond Financing (defined below) closing date as set forth in the EID Development Agreement (defined below) for such projects funded by such EID Bonds (collectively referred to as the "Method of Allocation of Annual Special Assessment").
- SECTION 31 The Method of Allocation of Annual Special Assessment shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- SECTION 32 The annual Special Assessment schedule for each year during the term of any EID Bonds shall be determined as of the closing date of such EID Bonds and be included in and made a part of the EID Development Agreement (defined below) for such EID Bonds (the "Special Assessment Schedule").
- SECTION 33 The method of determining the Special Assessment Schedule as set forth above shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds (collectively referred to as the "Method of Determining Special Assessment Schedule").
- SECTION 34 The Board may exempt a business established within the EID District after the creation of the EID District from assessment of any type for a period not to exceed one (1) year as contemplated under IC 36-7-22-10.
- SECTION 35 The plan for the application of assessment revenue and formula to be used for the assessment of special benefits shall be based upon the Method of Determining Annual Special Assessment Amount, the Method of Application of Special Assessment, Method of Allocation of EID Bonds Proceeds, Allowable Use of EID Bonds Proceeds, Method of Allocation of Annual Special Assessment, Method of Determining Special Assessment Schedule, and Method of Determining Annual Excess Zone Expense (defined below) and implemented as set forth in **Exhibit H** attached (collectively referred to as "**Plan for Application and Assessment Formula**").

- SECTION 36 The Plan for Application and Assessment Formula is based upon the following, which are reasonably representative of the diffusion of benefits from the Data Center accruing to all parcels of real property within the City and within the District:
 - (a) proximity of each parcel to the Data Center;
 - (b) accessibility of each parcel to the Data Center;
 - (c) true cash value of each parcel;
 - (d) true cash value of any improvement on each parcel;
 - (e) age of any improvement on each parcel; and
 - (f) other similar factors, including without limitation the total cost of the DX Hammond Economic Improvement Projects owned by a real property owner and funded by the EID Bonds in the Zone;

and adjusted by:

- (x) the establishment of three zones within the District, to delineate the approximate difference in beneficial impact of the Data Center and EID Bonds, which varies from one area to another within the District; and
- (y) the zoning classification and use of the property, in order to encourage and enable the retention and development of various land uses within the District.
- SECTION 37 The signing of the Special Assessment Schedule for each calendar year by a majority of the members of the Board and the delivery of the schedule to the Auditor shall constitute a final and conclusive determination of the benefits that are assessed (the "Annual Special Assessment Schedule").
- SECTION 38 The Board shall supplement each annual Special Assessment Schedule certified by the Board to the Auditor (the "Assessment Supplement Statement") by:
 - (a) Designating the Special Assessment as an "EID Bond Payment Special Assessment;" and
 - (b) Allocating the EID Bond Payment Special Assessment into the following four categories:
 - (1) Interest;
 - (2) Principal;
 - (3) Other EID Bond Expenses; and
 - (4) Other EID District Expenses.
- SECTION 39 The Auditor shall cause the information set forth in the Assessment Supplement Statement to be reflected on the tax statements of the persons owning the property affected by the Special Assessment as prepared by the Treasurer of Lake County.

- SECTION 40 Each Special Assessment shall be a lien on the real property that is assessed, second only to the ad valorem property taxes levied on the property located in the EID District as set forth and contemplated in IC 36-7-22-12(g) (the "Statutory Lien") and shall be in compliance with IC 36-7-22-12 and any other applicable provisions under the Act.
- SECTION 41 There shall be no other assessments of any type within the EID District.
- SECTION 42 The Special Assessments with respect to EID Bonds are to remain in place for a period of up to twenty-five (25) years from the date when such EID Bonds is issued to finance a portion of the DX Hammond Economic Improvement Projects.
- SECTION 43 Any property owned by the HRC and used for an exempt purpose that is located in the EID District is and shall continue to be exempt from property taxation under IC 6-1.1-10.
- SECTION 44 Any property owned by the HRC that is located in the EID District and used for an exempt purpose is and shall continue to be exempt from assessments of any type within the EID District.
- SECTION 45 Any property located in Zone 3 is and shall continue to be exempt from assessments of any type within the EID District under this Ordinance.
- SECTION 46 The total special assessments within the District in any calendar year shall not exceed:
 - (a) \$3,415,000.00 in Zone 1 (the "Zone 1 Maximum Total Special Assessment");
 - (b) \$3,415,000.00 in Zone 2 (the "Zone 2 Maximum Total Special Assessment"); and
 - (c) \$-0- in Zone 3 (the "Zone 3 Maximum Total Special Assessment").
- SECTION 47 Any debt service on EID Bonds, any other Board expenses attributable to EID Bonds, or other EID District expenses attributable to DX Hammond Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone that are in excess of the annual amount set forth in the Special Assessment Schedule at the closing of such EID Bonds (collectively referred to as "Annual Excess Zone Expenses") shall be paid by such owner as determined by the Board in accordance the EID Development Agreement (defined below) and the other documents for such EID Bonds (collectively referred to as the "Method of Determining Annual Excess Zone Expense").
- SECTION 48 The Method of Determining Annual Excess Zone Expense shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- SECTION 49 For the District, an economic improvement board under the Act shall be, and is hereby, established (such economic improvement board, the "Board"), which Board is hereby designated the "DX Hammond Economic Improvement Board." The Board shall have three

members, two (2) of which shall be appointed by the mayor and one (1) of which shall be appointed by the Common Council. All appointees are subject to Common Council approval.

SECTION 50 This Common Council may at any time or from time to time remove without cause any Common Council appointed Board Member and the mayor may at any time or from time to time remove without cause any mayoral appointed Board Member at any time or from time to time appoint and remove without cause. Each person appointed as a member of the Board shall serve for a term (a) commencing on the later of (i) such person's appointment, or (ii) such person's qualification; and (b) ending on the earliest of (i) such person's removal, (ii) such person's disqualification, or (iii) such person's resignation.

SECTION 51 It is intended that the Board shall be treated as an organization contemplated in Section 115(2) of the Internal Revenue Code.

SECTION 52 Any EID Bonds for the District shall be issued as provided in and in accordance with IC 36-7-22-22 as determined from time to time by the Board ("EID Bond Financing").

SECTION 53 In addition to the Statutory Lien, the Board shall have and retain the right to also enforce, pursue, collect and secure the payment of each Special Assessment by agreement or instrument with a security interest in and on any other property located in the EID District as determined by the Board, including by mortgage, security agreement, UCC filings and any other form of secured transaction, upon the written consent and agreement of the owner of such property ("Other Collateral").

SECTION 54 The Board shall have and retain the right to pledge and assign the Special Assessment and any Other Collateral to secure the EID Bonds as determined from time to time by the Board.

SECTION 55 With each EID Bonds issued, the Board shall enter into a development agreement with the City, HERC, HRC and the property owner seeking to fund its DX Hammond Economic Improvement Project (for each EID Bond Financing, an "EID Development Agreement"). A memorandum of the EID Development Agreement disclosing the HRC Waiver Provision (defined below) along with any other provisions required by the City shall be recorded in the offices of the Recorder and the Auditor of the County as part of the closing of each EID Bond.

SECTION 56 For as long as the HRC owns land or improvements in the EID District, each EID Development Agreement shall have a waiver provision substantially similar to the provision below included therein (collectively referred to as the "HRC Waiver Provision"):

"The City, HERC and HRC, including all subsequent property owner(s) of any portion of the land located in the EID District, hereby waive its rights (if any) to file an action to contest the HRC's status as an owner of land or improvements in the EID District under the Act or the validity of the EID District ordinance adopted to establish the EID District and Zones 1, 2, and 3 under IC 36-7-22-7 as contemplated under IC 36-7-22-13 whether available any time to such property owner as of or after the date of

this Agreement or which subsequently may be authorized by the General Assembly of the State of Indiana. Any subsequent property owners of land located in the EID District shall be required to acknowledge the existence of the EID District and declare and make the same waivers as set forth above concurrent with purchase of such land; provided however, in no event shall the City, HERC or HRC be subject to assessment in the EID District at any time."

SECTION 57 The Auditor of the County, the Treasurer of the County and each other officer of the County shall be, and hereby is, authorized and directed, for and on behalf of the County, to execute and deliver any instrument and take any other action determined by such officer to be necessary or convenient to carry out the purposes of this Ordinance, which determination shall be conclusively evidenced by such officer's execution and delivery of such instrument or taking of such other action.

SECTION 58 Should any provision (section, paragraph, sentence, clause or any other portion) of this Ordinance be declared by a court of competent jurisdiction to be invalid for any reason, the remaining provisions shall not be affected, if such remaining provisions can, without the invalid provision, be given the effect intended by this Common Council in adopting this Ordinance. To this end, the provisions of this Ordinance are severable.

SECTION 59 When implementing this Ordinance, this Ordinance and the Act shall be liberally construed by the parties to affect the purposes of this Ordinance and the Act to the extent allowed under Indiana law.

SECTION 60 This Ordinance shall be in full force and effect upon adoption and compliance with Indiana Code Section 36-2-4-8.

SECTION 61 This Ordinance may be amended in accordance with the Act. Any amendment to this Ordinance shall be subject to prior written approval of the Developer.

BE IT FURTHER ORDAINED that this Ordinance shall have full force and effect from and after the passage of the Common Council upon signing by the President thereof and the approval of the Mayor.

ADOPTED AND APPROVED BY the Common Council of the City of Hammond,

Indiana, this the day of _____

Dave Woerper, President

Hammond Common Council

ATTES]

Robert J. Golec, City Clerk

City of Hammond, Indiana

PRESENTED BY ME, the undersigned City Clerk of the City of Hammond to the Mayor
of said City for his approval on the 4th day of, 2021.
Robert & Halac
Robert J. Golec, City Clerk
City of Hammond, Indiana
The foregoing Ordinance No
Thomas M. McDermott, Mayor
City of Hammond, Indiana
PASSED by the Common Council on the Andrews day of February 2021 and Approved by the Mayor on the 101 day of February , 2021. Robert J. Golec, City Clerk
City of Hammond, Indiana
Oity of Hammond, filliana

EXHIBIT A

DISTRICT

EXHIBIT B

ZONE 1

EXHIBIT C

ZONE 2

EXHIBIT D

ZONE 3

EXHIBIT E

DX HAMMOND ECONOMIC IMPROVEMENT PROJECTS DETAILED DESCRIPTIONS AND COST ESTIMATES

EXHIBIT F

GENERAL DATA CENTER INFORMATION

DATA CENTERS

Jobs and Opportunities in Communities Nationwide

By: U.S., Chamber of Commerce Technology Engagement Center

May 17, 2017

DATA CENTER BUSINESS RECRUITMENT

The entire Data Center will support business recruitment within the EID District as contemplated under IC 6-7-22-3(4). The Data Center provides for the establishment of a colocation facility in Hammond, Indiana. The Data Center will bring significant, new fiber assets to the EID District and provide the EID District City access to new state of the art telecommunication services. These services are critical for a community to provide access to competitively priced broadband.

The initial data center that locates in a community often serves as a "carrier hotel", a place where national and international carriers can provide a point of presence to serve both data center and community customers. The fiber providers and those that deliver telecommunication services to consumers are CLECs and ILECs and governed by the Indiana Utility Regulatory Commission ("IURC"). See the copy of the article attached as <u>Exhibit G-1</u>.¹

As a colocation facility, the Data Center constantly seeks to recruit enterprise customers and telecommunication carriers to the EID District. Data centers typically locate in clusters once the initial data center has been established. Enterprise customers are risk adverse and desire to see the first facility constructed and operational to prove that the location has the power and infrastructure capable to reliability serve a data center. This means: (a) that data centers and its carrier hotels are both EID District assets and local community assets that provide significant public benefits to the City; and (b) that the data centers support the attraction of new businesses and investment to the EID District.

Data centers also have a significant positive impact on the EID District. They tend to require enhancements to infrastructure such as roads, water, sewer, and to power. This infrastructure development tends to support higher employment uses and, in some cases, accelerates employment growth that otherwise would not occur in the foreseeable future within the EID District.² See the copy of the article attached as **Exhibit G-2**.

In March 2018, the research firm RTI International published a report confirming a frequently quoted statistic about the multiplier effect of data centers: "for every 1 data center worker, there were 5 jobs supported elsewhere in the economy by operating expenditures—after the surge of jobs caused by the capital expenditures." See the copy of the article attached as **Exhibit G-3**.

According to a recent U.S. Chamber of Commerce's Chamber Technology Engagement Center (C_TEC) report, the average data center has the possibility of adding \$32.5 million to the local economy every year. Additionally, data center construction has the opportunity to create an extended economic impact. The same C_TEC report found that during construction a data center will spend an average of \$77.7 million on 1,688 local workers. This figure coupled with the average \$9.9 million in revenue paid to local governments and the state on yearly basis, can

 $^{^1}$ Go to: <u>https://siteselection.com/issues/2011/sep/sas-optical-infrastructure.cfm</u>

² Go to: https://www.areadevelopment.com/data-centers/Data-Centers-Q1-2015/impact-of-data-center-development-locally-2262766.shtml

³ https://imasons.org/imasons-blog/data-centers-impact-on-local-economies/

provide the funds needed to support public services and thus further bolster the local economy.⁴ See the copy of the article attached as <u>Exhibit G-4</u>.

In an increasingly interconnected work, the Data Center will play a key role in bringing business, their partners and their customers together, and it is importance is growing exponentially.⁵ See the copy of the article attached as **Exhibit G-5**.

⁴ Go to: https://www.raritan.com/blog/detail/measuring-the-economic-impact-of-one-data-center

⁵ Go to: https://www.gartner.com/imagesrv/media-products/pdf/global-switch/global-switch1-3QSK5N9.pdf

THE IMPORTANCE OF BROADBAND TO ECONOMIC DEVELOPMENT

THE MYSTERY IMPACT OF DATA CENTERS ON LOCAL ECONOMIES REVEALED

DATA CENTERS' IMPACT ON LOCAL ECONOMIES

MEASURING THE ECONOMIC IMPACT OF ONE DATA CENTER

EXHIBIT G-5 THE INTERCONNECTED ECOSYSTEM

EXHBIT H

PLAN OF APPLICATION AND ASSESSMENT FORMULA

Plan for the Application of Assessment Revenue to the Cost of the Economic Improvement Projects within each Zone

- Apply the Method of Determining Annual Special Assessment Amount. The amount of the assessment revenue collected from each Zone shall be based solely upon the amount of annual Special Assessments necessary for each Fiscal year to (a) cover the annual cost of the Board operating the EID District allocated by the Board to each Zone and (b) make the annual payment of all or a portion of the debt service and other related expenses on debt issued to fund all or a portion of the cost of DX Hammond Economic Improvement Projects in such Zone as determined by the Board ("EID Bonds"), including but not limited to the payment of debt service for any debt issued by the Board, HRC, HEDC or the City to support new DX Hammond Economic Improvement Projects made for a respective Zone (collectively referred as the "Method of Determining Annual Special Assessment Amount"). The annual cost of the Board operating the EID District shall be allocated to a Zone by the Board based on a Zone's percentage of the total remaining outstanding EID Bonds issued for the EID District as of January 1 of each year.
- Apply the Method of Application of Special Assessment. The Special Assessment for a Zone for each Fiscal year shall only be applied and used to (a) cover the annual cost of the Board operating the EID District allocated to the Zone by the Board and (b) make the annual payment of all or a portion of the debt service and other related expenses on EID Bonds issued for the cost of design, development and construction of the Economic Improvement Projects in the Zone.

Formula Used for The Assessment of Benefits

- Step 1. Apply Method of Allocation of EID Bond Proceeds. The entire amount of proceeds from the EID Bonds issued to fund all or a portion of the cost of the DX Hammond Economic Improvement Projects in the Zone shall be allocated to the Zone in which such improvements are made after all expenses and costs are paid with respect to the issuance of such EID Bonds and compliance with the Act.
- Method of Allocation of Annual Special Assessment. The annual Special Assessment for each Zone for each Fiscal Year shall be allocated to and paid by each real property owner in the Zone to the Board based upon the percentage of the total cost of the Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone ("Total Owner Bond Funded Improvements") relative to the total cost of the Economic Improvement Projects funded by the EID Bonds in the Zone as determined by the Board as of each Zone EID bond closing date ("Total Zone Bond Funded Improvements") as set for in the EID Development Agreement for such projects funded by such EID Bonds

According the Formula Used for the Assessment of benefits shall be:

Total Zone Annual Special Assessment x (Total Owner Bond Funded Improvements/Total Zone Bond Funded Improvements) = Zone Owner Annual Special Assessment

DX HAMMOND ECONOMIC IMPROVEMENT DISTRICT TABLE OF CONTENTS

- 1. PETITION FOR ESTABLISHMENT OF DX HAMMOND ECONOMIC IMPROVEMENT DISTRICT
- 2. SAMPLE ORDINANCE FOR ESTABLISHMENT OF DX HAMMOND ECONOMIC IMPROVEMENT DISTRICT

3. EXHIBITS

Petition Exhibits	Ordinance Exhibits	DESCRIPTION – For Ordinance Exhibits Referenc Exhibit Tab.	e Petition				
A	A	EID District	282				
В	В	Zone 1					
С	С	Zone 2	1 5				
D	D	Zone 3	2				
E		HRC TIF Resolution	<u>13</u>				
F		HRC Redevelopment Plan Amendment	120				
G		Center & Company Economic and Tax Impact Analysis					
Н		HEDC TIF Resolution					
I -		City Amended Ordinance					
J	E	DX Hammond Economic Improvement Projects Detailed Descriptions and Cost Estimates					
K	F	General Data Center Information					
L	G	Data Center Business Recruitment					
L-1	G-1	The Importance of Broadband to Economic Development					
L-2	G-2	The Mystery Impact of Data Centers on Local Economies Revealed					
L-3	G-3	Data Centers' Impact On Local Economies					
L-4	G-4	Measuring The Economic Impact of One Data Center					
L-5	G-5	The Interconnected Ecosystem Everyone Will Need					
M		EID Bond Financing Structure					
N	Н	Plan of Application and Assessment Formula					

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ROBERT J GOLEC

PETITION FOR ESTABLISHMENT OF ECONOMIC IMPROVEMENT DISTRICT PURSUANT TO IND. CODE § 36-7-22

DX Hammond OpCo, LLC, ("Petitioner 1"), DX Hammond Data Center, LLC (Petitioner 2") and Sam Townline Development Inc. ("Petitioner 3" and with Petitioner 1 and Petitioner 2, the "Petitioners") respectfully petition the Common Council ("Council") of the City of Hammond, Indiana ("City"), as the legislative body of the City, to establish an Economic Improvement District pursuant to IC 36-7-22 ("Act") the proposed boundaries of which consists of approximately 67.520 acres of real property more fully specifically described on the plat attached hereto and incorporated by reference herein as Exhibit A ("EID District") with (a) the real property identified and more fully specifically described on the plat attached hereto and incorporated by reference herein as Exhibit B ("Zone 1"), (b) the real property identified and more fully specifically described on the plat attached hereto and incorporated by reference herein as Exhibit C ("Zone 2"), and (c) the real property identified and more fully specifically described on the plat attached hereto as Exhibit D ("Zone 3", and with Zone 1 and Zone") each a "Zone" and together the "Zones") and further in support of this Petition, the Petitioner's state (collectively referred to as the "Petition"):

Boundaries of District and Zones

- 1. The boundaries for the EID District are set forth in **Exhibit A**.
- 2. The boundaries for the Zone 1 are set forth in **Exhibit B**.
- 3. The boundaries for the Zone 2 are set forth in **Exhibit C**.
- 4. The boundaries for the Zone 3 are set forth in **Exhibit D**.
- 5. The area designated as "Exception Area" on the attached plat for the EID District, specifically Exception Area #1, Exception #2, and Exception #3 owned fee simple by Commonwealth Edison Company of Indiana, has been excluded from the EID District ("Exception Area").
- 6. The EID District shall be comprised of the following area:

ZONES	ACRES
ZONE 1 BUILDING 1	2.338
ZONE 2 BUILDING 1	4.340
ZONE 3 EXEMPT AREA	60.842
TOTAL DISTRICT ACRES	67.520

Name, Address and Land Use of Parcels and Land Owners

7. Approximately 43.23 acres of the land comprising the EID District is owned in fee simple by the City of Hammond Redevelopment Commission ("HRC") subject to the certain leasehold interests and is exempt from real property tax under IC 6-1.1-10-5 (collectively referred to as the "HRC Land") which includes:

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\$ % S + S / S + S + S	A 5 7 4 7 400	PARCEL	ACRES
2021 JAN -4	PM 12: 21	Parcel: 45-01-36-176-005.000-023	2.3380
		Parcel: 45-01-36-176-004.000-023	11.5000
4.6	. 1.	Parcel: 45-01-36-176-003.000-023	29.3920
repose 6.7	on Fo	TOTAL ACRES	43.2300

- 8. The address for the HRC Land is 100 Digital Crossroads Drive, Hammond, IN 46320. The mailing address for the HRC is 5925 Calumet Avenue, Room 135, Hammond, IN 46320.
- 9. The entire EID District is currently used and zoned for industrial use, including the development of a data center campus and technology hub.
- The HRC conveyed a leasehold interest to Petitioner 1 pursuant to a Ground Lease and 10. Option to Purchase dated as of December 11, 2018, all as referenced in the Memorandum of Ground Lease Agreement and Option to Purchase dated December 17, 2019 and recorded in the offices of the recorder and the auditor of Lake County, Indiana ("Auditor") on February 5, 2020 ("Master Ground Lease"). Entering into the Master Ground Lease was a condition to the donation of Lake Michigan shoreline land to the City in furtherance of the Marquette Plan's goal of creating public access to the Lake Michigan shoreline. The adaptive rehabilitation of the shuttered large coal-incinerating power plant into an anticipated 400,000 square foot, 40 MW data center campus and technology hub (together with other technology and education-related enterprises) is bringing significant fiber assets to the City, providing access to new telecommunication services to support business recruitment and development in the City, and helping create not only construction jobs but a platform for tech jobs (collectively referred to as the "Data Center"). The construction of the 105,000 interior square foot, 3MW "Proof of Concept" multi-tenant data center building with its technology offices is almost complete ("Building 1").
- 11. To date, Petitioner 1 has made and will continue to make substantial leasehold improvements to the EID District to complete the Data Center ("Petitioner 1 Leasehold Improvements"). Pursuant to the Master Ground Lease, such Petitioner 1 Leasehold Improvements shall be owned by Petitioner 1 during the term of Master Ground Lease and would revert back to the HRC at the end of the term of the Master Ground Lease unless Petitioner 1 exercises its option to purchase the real property and improvements located in the EID District.
- 12. The leasehold interest of Petitioner 1 under the Master Ground Lease along with the Project Leasehold Improvements made by Petitioner 1 in the EID District has the assigned parcel number of 45-01-36-176-004.000-023 and is assessed and taxed as real property and personal property owned by Petitioner 2 as contemplated by IC 6-1.1-10-37(b) and (c) and 50 IAC 1-3-3 ("Petitioner 1 Leasehold").
- 13. The address for the Petitioner 1 Leasehold is 100 Digital Crossroads Drive, Hammond, IN 46320. The mailing address for Petitioner 1 is 6525 Guion Road, Indianapolis, IN 46238.

- 14. The entire Petitioner 1 Leasehold is currently used and zoned for industrial use, including the development of the Data Center.
- 15. Petitioner 1 conveyed a leasehold interest in Zone 1 to Petitioner 2 pursuant to a Ground Sublease dated as of December 11, 2018 all as referenced in the Memorandum of Ground Sublease Agreement dated December 24, 2018 and recorded in the offices of the recorder and the Auditor of Lake County, Indiana on February 5, 2019 ("Zone 1 Ground Lease"). The Zone 1 Ground Lease was entered into to facilitate the construction of Building 1.
- To date, Petitioner 2 has made substantial leasehold improvements to Zone 1 to complete Building 1 pursuant to the Zone 1 Ground Lease ("Petitioner 2 Leasehold Improvements" and with Petitioner 1 Leasehold Improvements, the "Project Leasehold Improvements"). All Petitioner 2 Leasehold Improvements are owned by Petitioner 2 during the term of the Zone 1 Ground Sublease and would revert back to the HRC at the end of the term of the Master Ground Lease unless Petitioner 1 exercises the option to purchase the real property and improvements located in the EID District.
- purchase the real property and improvements located in the EID District.

 The leasehold interest in Zone 1 of Petitioner 2 under the Zone 1 Ground Lease, along with Project Leasehold Improvements made by Petitioner 2 in Zone 1, has the assigned parcel number of 45-01-36-176-005.000-023 and is assessed and taxed as real property and personal property owned by Petitioner 1 as contemplated by IC 6-1.1-10-37(b) and (c) and 50 IAC 1-3-3 ("Petitioner 2 Leasehold").
 - 18. The address for the Petitioner 2 Leasehold is 100 Digital Crossroads Drive, Hammond, IN 46320. The mailing address for Petitioner 2 is 6525 Guion Road, Indianapolis, IN 46238.
 - 19. The entire Petitioner 2 Leasehold is currently used and zoned for industrial use, including the development of a data center campus and technology hub.
 - 20. Approximately 24.29 acres of the land comprising the EID District has the assigned parcel number of 45-01-36-176-002.000-023 and is owned in fee simple by Petitioner 3 (collectively referred to as the "Petitioner 3 Land").
 - 21. The address for the Petitioner 3 Land is 301 Digital Crossroads Drive, Hammond, IN 46320. The mailing address for Petitioner 3 is 78 Windmill Turn, Orland Park, IL 60467.
 - 22. The entire Petitioner 3 Land is currently vacant and zoned for industrial use.
 - 23. The Petitioners and HRC are the only owners of real property and improvements located in the EID District as of the date of this Petition.
 - 24. The HRC Land located with the EID District is currently exempt from property taxation under IC 6-1.1-10.
 - 25. The Petitioners represent 100.00% of the owners of real property in the EID District as determined under IC 36-7-22-7.

- 26. The Petitioners represent real property owners constituting 100% of the assessed valuation of property in the EID District subject to property taxation as determined under IC 36-7-22-7.
- 27. It is anticipated that Zone 2 will be used for the development and construction of Building 2 for a second multi-tenant data center building ("Building 2") pursuant to future ground subleases similar to the Zone 1 Ground Lease.
- 28. It is anticipated that Zone 2 leasehold along with real property and personal property improvements made for Building 2 in Zone 2 shall be assigned a separate parcel number, assessed and taxed as real property and personal property owned by the sub-lessee developing Building 2 as contemplated by IC 6-1.1-10-37(b) and (c) and 50 IAC 1-3-3 ("Building 2 Leasehold").

Petitioner 1 has the Petitioner 3 Land under an option to purchase.

It is anticipated that the Petitioner 3 Land located in Zone 3 will be not benefit from initial improvements made in the EID District for the Data Center.

It is anticipated that the Petitioner 3 Land located in Zone 3 will be used to expand the Data Center in the future.

- 32. It is anticipated that the Petitioner 3 Land located in Zone 3 will be exempt from special assessment in the EID District until the Petitioner 3 Land is used to expand the Data Center in the future and make improvements to the Petitioner Land 3 (collectively referred to as the "Petitioner 3 Land Improvements").
- 33. When Petitioner Land 3 Improvements are initiated in the future, the Petitioners will seek, at Petitioner 3's option and consent, to amend the ordinance establishing the EID District and subject the anticipated Parcel 3 Land Improvements to special assessment within the EID District as contemplated herein in accordance with the Act ("Anticipated EID Ordinance Amendment").
- 34. The HRC Land owned by the HRC, including such land located in Zone 3, shall remain exempt from special assessment as provided in IC 36-7-22-7(d).
- 35. It is anticipated that Exception Area will never benefit from improvements from the EID District and shall continue to be excluded from the EID District.

Waiver of Rights of Real Property Owners

36. Each Petitioner, including all subsequent owner(s) of any portion of the Project Leasehold Improvements located in the EID District, hereby waives its rights to file an action to contest its status as an owner of real property in the EID District under the Act or the validity of the EID District ordinance adopted to establish the EID District and Zones 1, 2, and 3 under IC 36-7-22-7 as contemplated under IC 36-7-22-13 whether available any time to a property owner as of or after the date of this petition or which subsequently may be authorized by the General Assembly of the State of Indiana.

- During the period or term for which any obligation or debt service is outstanding in which any assessment is pledged from the economic improvement fund created under IC 36-7-22-16 ("Economic Improvement Fund") as approved by the Board (as defined below) for the EID District to fund the completion of the Petitioner 1 Leasehold Improvements ("Pledged Petitioner 1 EID Assessment"), Petitioner 1 as the property owner of the Petitioner 1 Leasehold Improvements located in the EID District, including all subsequent property owner(s) of the such improvements, waives its rights to request or file a remonstrance against any Pledged Petitioner 1 EID Assessment or otherwise contest the validity of an assessment schedule for any Pledged Petitioner 1 EID Assessment, whether available any time to a property owner as of or after the date of this petition or which subsequently may be authorized by the General Assembly of the State of Indiana.
- During the period or term for which any obligation or debt service is outstanding in which any assessment is pledged from the Economic Improvement Fund as approved by the Board for the EID district for Zone I located in the EID District to fund the completion of the Petitioner 2 Leasehold Improvements ("Pledged Petitioner 2 EID Assessment" and together with the Pledged Petitioner 1 EID Assessment, collectively referred to as the "Pledged EID Assessments"), Petitioner 2 as the property owner of the Petitioner 2 Leasehold Improvements located Zone 1 of the EID District, including all subsequent property owner(s) of the such improvements, waives its rights to request or file a remonstrance against any Pledged Petitioner 2 EID Assessment or otherwise contest the validity or amount of any assessment or assessment schedule for any Pledged Petitioner 2 EID Assessment, whether available any time to a property owner as of or after the date of this petition or which subsequently may be authorized by the General Assembly of the State of Indiana.
- 39. During the period or term for which any obligation or debt service is outstanding in which any assessment is pledged from the Economic Improvement Fund as approved by the Board for the EID district, Petitioner 3 as the property owner of the Petitioner 3 Land or any improvements thereon, including all subsequent property owner(s) of the such land or improvements, waives its rights to request or file a remonstrance against any Pledged EID Assessment or otherwise contest the validity or amount of any assessment or assessment schedule for any Pledged EID Assessments, whether available any time to a property owner as of or after the date of this petition or which subsequently may be authorized by the General Assembly of the State of Indiana
- 40. It is anticipated that the property owners of the Building 2 Leasehold will be required to acknowledge the existence of the EID District and declare and make the same waivers as set forth above concurrent with the execution of the respective ground sublease by the respective sub-master lessee for Building 2.
- 41. It is anticipated that any subsequent property owners of land located in the EID District will be required to acknowledge the existence of the EID District and declare and make the same waivers as set forth above concurrent with purchase of such land.
- 42. It is anticipated that any subsequent property owners of improvements of real property located in the EID District will be required to acknowledge the existence of the EID

District and declare and make the same waivers as set forth above concurrent with purchase of such improvements.

Data Center Public Uses, Purposes, Utility and Benefits

- 43. In the process leading to the passage of HRC Resolution 19-3 dated February 5, 2019 ("HRC TIF Resolution", a copy of which is attached as Exhibit E) that authorized the pledge of certain tax increment financing revenues ("TIF Revenues") to the payment of the principal of and interest on certain 2019 bonds ("TIF Bonds"), HRC, pursuant to Indiana Code 36-7-14, as amended (the "Redevelopment Act"), had adopted a declaratory resolution on July 28, 1989 (as subsequently confirmed and amended, the "Redevelopment Declaratory Resolution") designating an area known as the Marina Redevelopment Area (the "Redevelopment Area") as an "area needing redevelopment" pursuant to the Redevelopment Act, designating a portion of the Redevelopment Area as an allocation area known as the State Line Allocation Area (the "State Line Allocation Area") and approving an amendment to the North Hammond Redevelopment Plan (the "Redevelopment Plan") for the Marina Redevelopment Area.
- In the process leading to the passage of HRC TIF Resolution, the HRC, pursuant to Sections 15-17.5 of the Redevelopment Act, the HRC amended the Redevelopment Declaratory Resolution and the Redevelopment Plan on October 16, 2018 to (a) designated each of the Petitioner 1 and Petitioner 2 as a "Designated Taxpayer" for purposes of IC 36-7-14-39.3; and (b) added the Data Center to the Redevelopment Plan as a redevelopment project (collectively, the "HRC Redevelopment Plan Amendment", a copy attached as Exhibit F).
- 45. Pursuant to Section 2(a) of the Redevelopment Act, the redevelopment of areas needing redevelopment are by law "public uses and purposes."
- 46. Pursuant to Section 2(b) of the Redevelopment Act, the City is required, to the extent feasible under Redevelopment Act and consistent with the needs of the City as a whole, afford a maximum opportunity for rehabilitation or redevelopment of areas by private enterprise.
- 47. In the process leading to the passage of HRC TIF Resolution, the HRC further contemplated as confirmed in the Amendment for the Hammond Marian Redevelopment Area: Stateline Allocation Area Report on Economic And Tax Impact Analysis prepared Cender & Company date January 22, 2019 ("Cender & Company Economic And Tax Impact Analysis", a copy attached as Exhibit G) that the Data Center would:
 - a. Create an environment conducive to new private investment and business expansion within, adjacent to and within proximity of the EID District consistent with a prior plan of development approved by the HRC;
 - b. Provide and promote significant opportunities for gainful employment of City and regional residents through business retention, expansion and attraction; and

- c. Be a public utility and benefit through an improved and diversified economic base of the City.
- 48. Based upon the process leading to the passage of the HRC TIF Resolution it is reasonable to conclude that all of the improvements made for the Data Center in the EID District are "local public improvements" as contemplated under IC 36-7-14-39(b)(3).
- The City of Hammond Economic Development Commission ("HEDC") determined that all of the improvements made for the Data Center in the EID District are all "economic development facilities" as contemplated under IC 36-7-11.9-3 and approved the TIF Bonds used to fund a portion of the Data Center all as defined and contemplated in HEDC Resolution 19-01 dated February 4, 2019, a copy of which attached as Exhibit H C ("HEDC TIF Resolution").
 - As set forth in the HEDC TIF Resolution, the HEDC determined that the diversification of industry, the creation of the business opportunities and creation for gainful employment attributable to the Data Center within the jurisdiction of the City is desirable, serves a public purpose, and is of benefit to the health and general welfare of the City; and that it is in the public interest that the City take action as it lawfully may to encourage the diversification of industry, creation of business opportunities, and creation of opportunities for gainful employment attributable to the Data Center within the jurisdiction of the City.
- 51. The City confirmed the findings of HRC and HEDC set forth above, and further found that the all of the improvements made for the Data Center will be of benefit to the health, prosperity, economic stability and general welfare of the City and its citizens all as defined and contemplated in City Amended Ordinance No. 9432 dated February 11, 2019 ("City Amended Ordinance", a copy of which attached as Exhibit I.
- 52. Based upon the foregoing it is reasonable to conclude the all of the improvements made for Data Center in the EID District shall be:
 - a. for "public uses and purposes" as contemplated under IC 36-7-14-2(a); and
 - b. of "public utility and benefit" as contemplated under IC 36-7-22-6(b)(2).

Economic Improvement Project Descriptions and Estimated Costs

- 53. The completion of the Petitioner 1 Leasehold Improvements, the Petitioner 2 Leasehold Improvements and the other improvements made for the Data Center within the EID District will include and consist of (each individually referred to as a "DX Hammond Economic Improvement Project" and collectively referred to "DX Hammond Economic Improvement Projects"):
 - a. Planning and managing development and improvement activities for the improvements made for the Data Center as contemplated in IC 36-7-22-3(1) and as more specifically described in **Exhibit J** (collectively referred to as "Planning and Managing Development and Improvement Activities");

- b. Designing, landscaping, beautifying, constructing or maintaining lighting, infrastructure, utility facilities, improvement, and equipment, water facilities, improvements, and equipment, sewage facilities, improvements, and equipment, and streets all made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(2) and as more specifically described in **Exhibit J** and **Exhibit K** attached (collectively referred to "**Public Improvements**");
- c. Promoting the commercial activities of financing, developing, constructing, staffing, marketing, renting-up, managing, operating, maintaining, repairing and sustaining all of the improvements for the Data Center located in the EID District as contemplated in IC 36-7-22-3(3) and as more specifically described in **Exhibit J** attached (collectively referred to "Commercial Activity");

supporting the business recruitment within the EID District that is attributable to all of the improvements made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(4) and as more specifically described in **Exhibit J** and **Exhibit L** attached (collectively referred to "Business Recruitment");

supporting the business development within the EID District that is attributable to all of the improvements made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(4) and as more specifically described in **Exhibit J** attached (collectively referred to as "Business Development"); and

- f. acquiring, constructing, or maintaining parking facilities for the Data Center located in the EID District as contemplated in IC 36-7-22-3(6) and as more specifically described in **Exhibit J** attached (collectively referred to "**Parking Facilities**").
- 54. The detailed descriptions and estimated cost of all the current anticipated DX Hammond Economic Improvements Projects to be carried out in each Zone are set forth in **Exhibit J**, **Exhibit K** and **Exhibit L** attached.

Benefits to Accrue to the Property Owners within the EID District

- 55. It is anticipated the building owners and other tenants owning property in the EID District will have access to and benefit from the completion of the following elements of DX Hammond Economic Improvement Projects:
 - a. The shell and core infrastructure for the 105,000 square feet Building 1 Data Center in the EID District;
 - b. The shell and core infrastructure for the 210,000 square feet Building 2 Data Center in the EID District;
 - c. A 12MW critical/18MW Data Center utility facility with available back-up generator system required by Fortune 100 Data Center customers in Building 1;

- d. A 27MW critical/40.50MW available Data Center utility facility with back-up generator system required by Fortune 100 Data Center customers in Building 2;
- e. A 20+MW power plant sub-station utility facility in the EID District for primary power usage that will start the power consumption plan for the entire site for Building 1 and a portion of Building 2;
- f. An additional 84+MW power plant sub-station utility facility in the EID District for primary power usage that will complete the power consumption plan for the entire site (a portion of Building 2and other buildings located within the EID District);
- g. A primary closed-loop water cooling utility system to cool each Data Center building;
- h. A back-up closed-loop water cooling utility system for each Data Center building;
- i. Parking, road access, landscaping and security fencing for the entire Data Center in the EID District;
- j. Full certification and commissioning of the entire Data Center, including all the elements required to complete the Data Center campus; and
- k. A 1728 strand fiber optics utility network that connects the Data Center to the downtown Chicago superhub. This will result in direct fiber connection to the following carriers:

Tier 1 Fiber Providers:

- Zayo
- Wide Open West
- Crown Castle
- Windstream
- CenturyLink/Level 3
- Comcast
- ATT
- US Signal
- Telia Carrier
- Verizon

Tier 2 Service Providers:

- NYI
- Cincinnati Bell (Legacy ATT)
- Consolidated Telephone
- Comcast
- Everstream
- Colt

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- Megaport
- 365 Data Centers
- Segra
- Hurricane Electric
- Metronet
- Cogent
- Hibernia Networks
- Telia
- SDN Comm
- Verizon Business
- Crown Castle
- Independent Fiber Networks
- China Telecom
- ATT
- Centurylink
- SHAW
- Fusion
- RCN
- Atlantic Metro
- GTT
- Hypercore.
- 56. The HRC will benefit from the new property taxes to be derived from the EID District in excess of the taxes attributable to the base assessed value of the property in the EID District that will enable the HRC to pay debt service on bonds issued under IC 36-7-14.25.1, or to make payments or provide security on leases payable under IC 36-7-14-25.2, in order to provide public improvements in the EID District.
- 57. Each owner of a building in a Zone will benefit from its ability to obtain funding from the Board (defined below) to finance the cost of DX Hammond Economic Improvement Projects made in the Zone by such owner based upon the Special Assessments (defined below) paid by such owner using the financing structure attached hereto as **Exhibit M**.
- 58. The EID District was a vacant property prior to the development of the Data Center.
- 59. The benefits provided by completion of all the improvements made for the Data Center are all new benefits and will not replace benefits existing before the establishment of the EID District and the completion of DX Hammond Economic Improvements Projects.
- 60. The Exception Area shall not benefit from the improvements made within the EID District and is excluded from the EID District.

Assessments, Application, Benefit, Formula, Bonds and Terms

61. The assessment revenues to be collected and deposited into the Economic Improvement Fund for the Board shall be done on a zone by zone basis ("Special Assessments"). The Board shall establish, have and maintain subaccounts within the Economic Improvement

Fund in which the Special Assessment for each Zone shall be assessed, collected and deposited by the Board ("Economic Improvement Fund"). The Board shall have a December 31st fiscal yearend ("Fiscal Year").

- The amount of the assessment revenue collected from each Zone shall be based solely upon the amount of annual Special Assessments necessary for each Fiscal year to (a) cover the annual cost of the Board operating the EID District allocated by the Board to each Zone, and (b) make the annual payment of all or a portion of the debt service and other related expenses on bonds issued to fund all or a portion of the cost of DX Hammond Economic Improvement Projects in such Zone as determined by the Board ("EID Bonds"), including but not limited to the payment of debt service for any bonds issued by the Board, HRC, HEDC or the City to support new DX Hammond Economic Improvement Projects made for a respective Zone (collectively referred as the "Method of Determining Annual Special Assessment Amount"). The annual cost of the Board operating the EID District shall be allocated to a Zone by the Board based on a Zone's percentage of the total remaining outstanding EID Bonds issued for the EID District as of January 1 of each Fiscal Year.
- 63. EID Bonds will not be issued for Zone 3 until after the Anticipated EID Ordinance. Amendment is passed by the City in accordance with the Act at the option of Petitioner 3.
- 64. The EID Bonds, and the interest payable thereon, shall not represent or constitute a debt of the City, the State of Indiana ("State") or any political subdivision or taxing authority thereof within the meaning of the provisions of the constitution or statutes of the State of a pledge of the faith and credit of the City or the State or any political subdivision or taxing authority thereof;
- 65. Neither the faith and credit nor the taxing power of the City, the State or any political subdivision or taxing authority thereof shall be pledged to the payment of the principal of, premium, if any, or the interest on the EID Bonds; and
- 66. The EID Bonds shall not grant the owners or holders thereof any right to have the City, the State or its general assembly or any political subdivision or taxing authority of the State, levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the EID Bonds.
- 67. The Method of Determining Annual Special Assessment Amount shall be set forth in and implemented in the accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- 68. The Special Assessment for a Zone shall only be applied and used to (a) cover the annual cost of the Board operating the EID District allocated to the Zone by the Board, and (b) make the annual payment of all or a portion of the debt service and other related expenses on EID Bonds issued for the cost of design, development and construction of the DX Hammond Economic Improvement Projects in the Zone (collectively referred to as the "Method of Application of Special Assessment").

- 69. The Method of Application of Special Assessment shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- 70. The entire amount of proceeds from the EID Bonds issued to fund all or a portion of the cost of the DX Hammond Economic Improvement Projects in the Zone shall be allocated to the Zone in which such improvements are made after all expenses and costs are paid with respect to the issuance of such EID Bonds and compliance with the Act (collectively referred to as the "Method of Allocation of EID Bond Proceeds").
- 71. The Method of Allocation of EID Bond Proceeds shall be set forth in and implemented in the accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
 - The proceeds from the EID Bonds allocated to a Zone shall only be used to reimburse or fund cost incurred by the owner of a DX Hammond Economic Improvement Project in accordance with an EID Development Agreement (defined below) by and among the City, EERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by the EID Bonds (collectively referred to as the "Allowable Use of EID Bond Proceeds").
- 73. The Allowable Use of EID Bond Proceeds shall be set forth in and implemented in the accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
- 74. Effectively 100% of Special Assessments collected from a Zone shall benefit the Zone from which it is collected and enables the completion of all or a portion or all of the DX Hammond Economic Improvement Projects made in the Zone that are funded by an EID Bonds.
- 75. The annual Special Assessment for each Zone shall be allocated to and paid by each real property owner in the Zone to the Board based upon the percentage of the total cost of the DX Hammond Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone relative to the total cost of the DX Hammond Economic Improvement Projects funded by the EID Bonds in the Zone as determined by the Board as of each Zone EID Bond closing date as set for in the EID Development Agreement (defined below) for such projects funded by such EID Bonds (collectively referred to as the "Method of Allocation of Annual Special Assessment").
- 76. The Method of Allocation of Annual Special Assessment shall be set forth in and implemented in the accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.

- 77. The annual Special Assessment schedule for each year during the term of any EID Bonds shall be determined as of the closing date of such EID Bonds and be included in and made a part of the EID Development Agreement (defined below) for such EUD Bonds ("Special Assessment Schedule").
- 78. The method of determining Special Assessment Schedule as set forth above shall be set forth in and implemented in the accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds (collectively referred to as the "Method of Determining Special Assessment Schedule").
- The Board may exempt a business established within the EID District after the creation of the EID District from assessment of any type for a period not to exceed one (1) year as contemplated under IC 36-7-22-10.

 The plan for the application of assessment revenue and formula to be used for the assessment of special benefits shall be based upon the Method of Determining Annual
 - The plan for the application of assessment revenue and formula to be used for the assessment of special benefits shall be based upon the Method of Determining Annual Special Assessment Amount, the Method of Application of Special Assessment, Method of Allocation of Annual Special Assessment, Allowable Use of EID Bond Proceeds, Method of Allocation of Annual EID Bond Proceeds, Method of Determining Special Assessment Schedule, and Method of Determining Annual Excess Zone Expense and implemented as set forth in Exhibit N attached (collectively referred to as "Plan for Application and Assessment Formula").
 - The signing of the Special Assessment Schedule for each calendar year by a majority of the members of the Board and the delivery of the schedule to the Auditor shall constitute a final and conclusive determination of the benefits that are assessed ("Annual Special Assessment Schedule").
 - 82. Any debt service on EID Bonds, any other Board expenses attributable to EID Bonds, or other EID district expenses attributable to DX Hammond Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone that are in excess of the annual amount set forth in the Special Assessment Schedule at the closing of such EID Bonds (collectively referred "Annual Excess Zone Expenses") shall be paid by such owner as determined the Board in accordance the EID Development Agreement (defined below) and the other documents for the such EID Bonds (collectively referred to as the "Method of Determining Annual Excess Zone Expense").
 - 83. The Method of Determining Annual Excess Zone Expense shall be set forth in and implemented in the accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.
 - 84. The Board shall supplement each annual Special Assessment Schedule certified by the Board to the Auditor ("Assessment Supplement Statement") by:

- a. Designating the Special Assessment as an "EID Bond Payment Special Assessment;" and
- b. Allocating the EID Bond Payment Special Assessment into the following four categories:
 - i. Interest;
 - ii. Principal;
 - iii. Other EID Bond Expenses; and
 - iv. Other EID District Expenses.
- 85. The Auditor shall cause the information set forth in the Assessment Supplement Statement to be reflected on the tax statements of the persons owning the preperty affected by the Special Assessment as prepared by the Treasurer of Lake County.
- 86. Each Special Assessment is a lien on the real property that is assessed, second only to the ad valorem property taxes levied on the property located in the EID District as set forth and contemplated in IC 36-7-22-12(g) ("Statutory Lien") and shall be in compliance with IC 36-7-22-12 and any other applicable provisions under the Act.
- 87. Any real property subject to a Statutory Lien shall be subject to sale in accordance with IC 6-1.1-24 and 6-1.1-25.
- 88. The Board acknowledges and agrees that for payment of each Special Assessment the Board shall look solely to the Statutory Lien to secure and collect the payment of each Special Assessment, except as otherwise agreed and consented to by the owner of the real property to which the Special Assessment is levied.
- 89. In addition to the Statutory Lien, the Board shall have and retain the right to also enforce, pursue, collect and secure the payment of each Special Assessment by agreement or instrument with a security interest in and on any other property located in the EID District as determined by the Board, including by mortgage, security agreement, UCC filings and any other form of secured transaction, upon the written consent and agreement of the owner of such property ("Other Collateral").
- 90. The Board shall have and retain the right to pledge and assign the Special Assessment and any Other Collateral to secure the EID Bonds as determined from time to time by the Board.
- 91. There shall be no other assessments of any type within the EID District.
- 92. The Special Assessments with respect to EID Bonds are to remain in place for a period of up to 25 years from the date when such EID Bonds are issued to finance a portion of the DX Hammond Economic Improvement Projects.

- 93. It is anticipated that the EID Bonds shall be issued by the HERC pursuant to a process similar to the process used by the HERC to issue the TIF Bonds as provided in IC 36-7-22-22 (see **Exhibit M** attached).
- 94. The total special assessments within the EID District in any calendar year shall not exceed:
 - a. \$3,415,000.00 in Zone 1 (the "Zone 1 Maximum Total Special Assessment"); and
 - b. \$3,415,000.00 in Zone 2 (the "Zone 2 Maximum Total Special Assessment")
- 95. Prior to the Anticipated EID Ordinance Amendment the total assessment within the EID District in any calendar year for Zone 3 shall be \$-0- (the "Zone 3 Maximum Special Assessment").
- 96. Any property owned by the HRC and used for an exempt purpose that is located in the EID District is and shall continue to be exempt from property taxation under IC 6-1.1-10.
- 97. Any property owned by the HRC that is located in the EID District and used for an exempt purpose is and shall continue to be exempt from assessments of any type within the EID District.

Board

- 98. A board for the EID District shall be established by the City in accordance with 163 36.77 22-11 (the "Board").
- 99. The proposed members of the Board are Dave Woerpfel as a representative of Petitioner 2, Phil Taillon as a representative of Petitioner 3, and Kevin Smith as a representative of the City, all of which are at least 18 years of age, have been a resident of the City of Hammond for at least 1 year prior to the submittal of this Petition and represent entities that own property within the proposed EID District. The Board shall be used for a public purpose and perform an essential governmental function for the City as contemplated in the Act.
- 100. The performance of the Board's functions shall be for and on the behalf of the City as contemplated in the Act.
- 101. With each EID Bond, the Board shall enter into a Development Agreement with the City, HERC, HRC and the property owner seeking to fund its DX Hammond Economic Improvement Project (for each EID Bond, an "EID Development Agreement").
- 102. For as long as the HRC owns the land comprising the EID District, each EID Development Agreement shall have the following provision included therein:

"The City, HERC and HRC, including all subsequent property owner(s) of any portion of the land or improvements located in the EID District, hereby waive its

1035 1035 1035 rights (if any)to file an action to contest the HRC's status as an owner of land in the EID District under the Act or the validity of the EID District ordinance adopted to establish the EID District and Zones 1, 2, and 3 under IC 36-7-22-7 as contemplated under IC 36-7-22-13 whether available any time to such property owner as of or after the date of this Agreement or which subsequently may be authorized by the General Assembly of the State of Indiana. Any subsequent property owners of land located in the EID District will be required to acknowledge the existence of the EID District and declare and make the same waivers as set forth above concurrent with purchase of such land; provided however, in no event shall the City, HERC or HRC be subject to assessment in the EID District at any time."

Through the power of the City to appoint the Board, the EID District and the Board shall effectively be subject to the supervision of the City as provided in IC 36-7-22-11.

- 104. Each annual budget prepared by the Board for the EID District shall be subject to approval, modification or rejection by the City as contemplated in IC 36-7-22-17.
- 105. If the ordinance establishing the EID District is repealed, the assets and liabilities of the EID District shall be disposed of in a manner determined by the City where liabilities incurred by the EID District are not an obligation of the City, HERC or HRC and are payable only from the Special Assessments and other revenues of the EID as contemplated in IC 36-7-22-20.
- 106. It is intended that the Board shall be treated as an organization contemplated in Section 115(2) of the Internal Revenue Code.

Petitioners

- 107. The Petitioners that have signed this Petition own one hundred percent (100%) of the real property within the EID District as of the date of their execution of this Petition.
- 108. The Petitioners that have signed this petition are owners of real property constituting one hundred percent (100%) of the assessed valuation within the EID District as of the date of their execution of this Petition.

Pursuant to the Act, Petitioner respectfully requests that the Commissioners proceed with a public hearing on the establishment of the EID District and determine that:

- 1. This Petition meets the requirements of Sections 4, 5 and 7 of the Act;
- 2. The Data Center will provide special benefits to property owners in the EID District and will be of public utility and benefit;
- 3. The benefits provided by the Data Center will be new benefits that do not replace benefits existing before the establishment of the EID District; and

4. The formula to be used for the assessment of benefits set forth in **Exhibit** N and further describe in the Petition is appropriate.

WHEREFORE, Petitioners respectfully request that the Council grant this Petition and move forward to create the EID District.

[Signature page to follow]

2021 JAN -4 PHI2: 27

COMMON COUNCIL OF THE CITY OF HAMMOND, INDIANA PETITION FOR ESTABLISHMENT OF ECONOMIC IMPROVEMENT DISTRICT PURSUANT TO INDIANA CODE § 36-7-22

Respectfully submitted on December 30 2020.

PETITIONER 1

DX Hammond Data Center, LLC

By:

DX Hammond OpCo, LLC, its sole Manager

By: DX Hammond HoldCo, LLC, its sole Member and Manager

Thomas Dakich, Manager

PETITIONER 2

DX Hammond OpCo, LLC

By:

By: DX Hammond HoldCo, LLC, its

sole

Member and Manager

Thomas Dakich, Manager

PETITIONER 3

Sam Townline Development, Inc.

Alan Beemsterboer, President

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CONSENT & WAIVER

The City of Hammond Redevelopment Commission ("HRC") hereby consents to the filing of this Petition and waives its right to contest the validity of the ordinance establishing the EID District as set forth in IC 36-7-22-13(a)(1).

HRC	
City	of Hammond Redevelopment Commission
	r
By:	
<i></i> ;	Tony Hauprich, President
Date	

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ORDINANCE NO.

ORDINANCE ESTABLISHING ECONOMIC IMPROVEMENT DISTRICT AND AUTHORIZING AND APPROVING OTHER ACTIONS WITH RESPECT THERETO

WHEREAS, a petition (the "Petition") for the establishment of an economic improvement district in the City of Hammond, Indiana ("City") under Indiana Code 36-7-22 (the "Act") has been filed with the Common Council of the City (this "Common Council") to facilitate additional privately funded debt financing for the adaptive rehabilitation of the shuttered large coal-incinerating power plant into an anticipated 400,000 square foot, 40 MW data center campus infrastructure and utility facility that brings significant fiber assets to the City and provides access to new telecommunication services to support business recruitment and development in the City, (collectively referred to as the "Data Center") which includes the completion of the construction of the 105,000 interior square foot, 3MW "Proof of Concept" building with its technology offices (the "Building 1") as provided in IC 36-7-22-22 (such additional privately funded debt financing, the "EID Bonds");

WHEREAS, the Petition included the following information: (1) the boundaries of a proposed economic improvement district, including the boundaries of any zones to be established under Section 5(b) of the Act; (2) the name and address of each parcel and owner of land within the proposed economic improvement district and a description of the existing land use and zoning classification of each parcel; (3) a detailed description of the economic improvement project to be carried out within the proposed economic improvement district, the estimated cost of the economic improvement project and the benefits to accrue to the property owners within the economic improvement district; (4) a plan for the application of assessment revenue to the cost of the economic improvement project within the economic improvement district; (5) a proposed formula for determining the percentage of the total benefit to be received by each parcel of real property within the economic improvement district, in the manner provided by Section 5 of the Act; (6) the number of years in which assessments will be levied; and (7) a proposed list of members for the economic improvement board;

WHEREAS, this Common Council published notice (the "Notice") of a hearing on November ___, 2020 (the "Hearing"), on the proposed economic improvement district and mailed a copy of the Notice to each owner of real property within the proposed economic improvement district;

WHEREAS, at the Hearing, this Common Council heard all owners of real property in the proposed economic improvement district (who appeared and requested to be heard) upon the questions of: (1) the sufficiency of the Notice; (2) whether the proposed economic improvement project is of public utility and benefit; (3) whether the formula to be used for the assessment of special benefits is appropriate; and (4) whether the economic improvement district contains all, or more or less than all, of the property specially benefited by the proposed economic improvement project;

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DEVENED

WHEREAS, at the Hearing, this Common Council received and considered evidence of the benefits from the Data Center accruing to the parcels of real property within the City, and within the economic improvement district, based on the following:

- (a) proximity of each parcel to the Data Center;
- (b) accessibility of each parcel to the Data Center;
- (c) true cash value of each parcel;
- (d) true cash value of any improvement on each parcel;
- (e) age of any improvement on each parcel;
- (f) other similar factors, including without limitation the special benefits accruing to each real property owner receiving financing facilitated by the Board (defined below);
- (g) the varying benefit of the Data Center from one area to another; and
- (h) the need to retain and develop various land uses;

WHEREAS, in the process leading to the passage of HRC Resolution 19-3 dated February 5, 2019 ("HRC TIF Resolution") that authorized the pledge of certain tax increment financing revenues ("TIF Revenues") to the payment of the principal of and interest on certain 2019 bonds ("TIF Bonds"), HRC, pursuant to Indiana Code 36-7-14, as amended (the "Redevelopment Act"), had adopted a declaratory resolution on July 28, 1989 (as subsequently confirmed and amended, the "Redevelopment Declaratory Resolution") designating an area known as the Marina Redevelopment Area (the "Redevelopment Area") as an "area needing redevelopment" pursuant to the Redevelopment Act, designating a portion of the Redevelopment Area as an allocation area known as the State Line Allocation Area (the "State Line Allocation Area") and approving an amendment to the North Hammond Redevelopment Plan (the "Redevelopment Plan") for the Marina Redevelopment Area;

WHEREAS, the process leading to the passage of HRC TIF Resolution, the HRC, pursuant to Sections 15-17.5 of the Redevelopment Act, the HRC amended the Redevelopment Declaratory Resolution and the Redevelopment Plan on October 16, 2018 to (a) designated each of the Petitioner 1 and Petitioner 2 as a "Designated Taxpayer" for purposes of IC 36-7-14-39.3; and (b) added the Data Center to the Redevelopment Plan as a redevelopment project (collectively, the "HRC Redevelopment Plan Amendment");

WHEREAS, pursuant to Section 2(a) of the Redevelopment Act, the redevelopment of areas needing redevelopment are by law "public uses and purposes";

WHEREAS, pursuant to Section 2(b) of the Redevelopment Act, the City is required, to the extent feasible under Redevelopment Act and consistent with the needs of the City as a whole, afford a maximum opportunity for rehabilitation or redevelopment of areas by private enterprise; WHEREAS, in the process leading to the passage of HRC Resolution, the HRC further contemplated as confirmed in the Amendment for the Hammond Marian Redevelopment Area: Stateline Allocation Area – Report on Economic and Tax Impact Analysis prepared Cender & Company dated January 22, 2019 ("Cender & Company Economic And Tax Impact Analysis") that the Data Center would:

- (a) create an environment conducive to new private investment and business expansion within, adjacent to and within proximity of the EID District consistent with a prior plan of development approved by the HRC;
- (b) provide and promote significant opportunities for gainful employment of City and regional residents through business retention, expansion and attraction; and
- (c) be a public utility and benefit through an improved and diversified economic base of the City;

WHEREAS, based upon the process leading to the passage of the HRC Resolution it is reasonable to conclude that all of the improvements made for the Data Center in the EID District are "local public improvements" as contemplated under IC 36-7-14-39(b)(3);

WHEREAS, The City of Hammond Economic Development Commission (the "HEDC") determined that all of the improvements made for the Data Center in the EID District are all "economic development facilities" as contemplated under IC 36-7-11.9-3 and approved the TIF Bonds used to fund the construction of Building 1 all as defined and contemplated in HEDC Resolution 19-01 dated February 4, 2019 (the "HEDC TIF Resolution");

WHEREAS, as set forth in the HEDC TIF Resolution, the HEDC determined that the diversification of industry, the creation of the business opportunities and creation for gainful employment attributable to the Data Center within the jurisdiction of the City is desirable, serves a public purpose, and is of benefit to the health and general welfare of the City; and that it is in the public interest that the City take action as it lawfully may to encourage the diversification of industry, creation of business opportunities, and creation of opportunities for gainful employment attributable to the Data Center within the jurisdiction of the City;

WHEREAS, the City confirmed the findings of HRC and HEDC set forth above, and further found that all of the improvements made for the Data Center will be of benefit to the health, prosperity, economic stability and general welfare of the City and its citizens all as defined and contemplated in City Amended Ordinance No.9432 dated February 11, 2019 ("City Amended Ordinance");

WHEREAS, based upon the foregoing it is reasonable to conclude that all of the improvements made for the Data Center in the EID District shall be:

- (a) for "public uses and purposes" as contemplated under IC 36-7-14-2(a); and
- (b) of "public utility and benefit" as contemplated under IC 36-7-22-6(b)(2);

WHEREAS, the EID Debt, and the interest payable thereon, shall not represent or constitute a debt of the City, the State of Indiana ("State") or any political subdivision or taxing authority thereof within the meaning of the provisions of the constitution or statutes of the State or a pledge of the faith and credit of the City or the State or any political subdivision or taxing authority thereof;

WHEREAS, neither the faith and credit nor the taxing power of the City, the State or any political subdivision or taxing authority thereof shall be pledged to the payment of the principal of, premium, if any, or the interest on the EID Debt; and

WHEREAS, the EID Debt shall not grant the owners or holders thereof any right to have the City, the State or its general assembly, or any political subdivision or taxing authority of the State, levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the EID Bonds.

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF HAMMOND, LAKE COUNTY, INDIANA:

SECTION 2 This Common Council hereby determines that:

- (a) the Petition meets the requirements of Sections 4, 5 and 7 of the Act;
- (b) the Data Center to be undertaken in the District (as hereinafter defined) will provide special benefits to property owners in the District and will be of public utility and benefit;
- (c) the benefits provided by the Data Center will be new benefits that do not replace benefits existing before the establishment of the District;
- (d) the formula to be used for the assessment of benefits is appropriate;
- (e) the Petition has been signed by (a) a majority of the owners of real property within the District; and (b) the owners of real property constituting more than 50% of the assessed valuation in the District ((i) excluding the signatures of any persons whose property would be exempt from assessments under this Ordinance, and (ii) excluding, in determining the total assessed valuation in the proposed economic improvement district, the assessed valuation of any property that would be exempt from assessment under this Ordinance);
 - (f) the benefit of the Data Center varies from one area to another within the District from time to time and three zones must be established within the District to delineate the approximate difference in beneficial impact; and
 - (g) the retention or development of various land uses within the District must be encouraged.

- SECTION 3 An economic improvement district under the Act shall be, and hereby is, established (such economic improvement district, the "District"), which District is hereby designated the "DX Hammond Economic Improvement District".
- SECTION 4 The boundaries of the District shall consist of approximately 67.52 acres of real property more fully specifically described in the legal description and the plat attached hereto and incorporated by reference herein as **Exhibit A**. ("**District Plat**")
- SECTION 5 The area designated as "Exception Area" in the District Plat, specifically Exception Area #1, Exception #2, and Exception #3, has been excluded from the EID District ("Exception Area").
- SECTION 6 The following three zones under Section 5(b) of the Act shall be, and hereby are, established:
 - (a) a zone comprised of the real property identified and more fully specifically described on the plat attached hereto as <u>Exhibit B</u> ("Zone 1 Plat") which is not exempt from assessment under this Ordinance ("Zone 1");
 - (b) a zone comprised of the real property identified and more fully specifically described on the plat attached hereto as <u>Exhibit C</u> ("Zone 2 Plat") which is not exempt from assessment under this Ordinance ("Zone 2"); and
 - (c) a zone comprised of the real property identified and more fully specifically described on the plat attached hereto as **Exhibit D** ("**Zone 3 Plat**") which is exempt from assessment under this Ordinance ("**Zone 3**" and with Zone 1 and Zone 2, each a "**Zone**" and together the "**Zones**")
- SECTION 7 The boundaries of each respective Zone set forth in the Zone 1 Plat, the Zone 2 Plat and the Zone 3 plat shall be the boundaries of each respective Zone within the District.
- The completion of the Data Center within the EID District will include and consist of (each individually referred to as a "DX Hammond Economic Improvement Project" and collectively referred to "DX Hammond Economic Improvement Projects"):
 - (a) planning and managing development and improvement activities for the improvements made for the Data Center as contemplated in IC 36-7-22-3(1) and as more specifically described in **Exhibit E** (collectively referred to as "**Planning and Managing Development and Improvement Activities**");
 - (b) designing, landscaping, beautifying, constructing or maintaining lighting, infrastructure, utility facilities, improvement, and equipment, water facilities, improvements, and equipment, and streets all made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(2) and as more specifically described in **Exhibit E** and **Exhibit F** attached (collectively referred to "**Public Improvements**");

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- (c) promoting the commercial activities of financing, developing, constructing, staffing, marketing, renting-up, managing, operating, maintaining, repairing and sustaining all of the improvements for the Data Center located in the EID District as contemplated in IC 36-7-22-3(3) and as more specifically described in **Exhibit E** attached (collectively referred to "**Commercial Activity**");
- (d) supporting the business recruitment within the EID District that is attributable to all of the improvements made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(4) and as more specifically described in **Exhibit E** and **Exhibit G** attached (collectively referred to "Business Recruitment");
- (e) supporting the business development within the EID District that is attributable to all of the improvements made for the Data Center located in the EID District as contemplated in IC 36-7-22-3(4) and as more specifically described in **Exhibit E** attached (collectively referred to as "Business Development"); and
- (f) acquiring, constructing, or maintaining parking facilities for the Data Center located in the EID District as contemplated in IC 36-7-22-3(6) and as more specifically described in **Exhibit E** attached (collectively referred to "**Parking Facilities**").
- SECTION 9 The detailed descriptions and estimated cost of all the current anticipated DX Hammond Economic Improvements Projects to be carried out in each Zone are set forth in **Exhibit E**, **Exhibit F** and **Exhibit G** attached.
- SECTION 10 It is anticipated the building owners and other tenants owning property in the initial development of EID District will have access to and benefit from the completion of the following elements of DX Hammond Economic Improvement Projects (collectively referred as "Initial Data Center Development"):
 - (a) The shell and core infrastructure for the 105,000 square feet Building 1 Data Center first building in the EID District;
 - (b) The shell and core infrastructure for the 210,000 square feet building ("Building 2") Data Center in the EID District;
 - (c) 12MW critical/18MW Data Center utility facility with available back-up generator system required by Fortune 100 Data Center customers in Building 1;
 - (d) A 27MW critical/40.50MW available Data Center utility facility with back-up generator system required by Fortune 100 Data Center customers in Building 2;
 - (e) A 20+MW power plant sub-station utility facility in the EID District for primary power usage that will start the power consumption plan for the entire site for Building 1 and a portion of Building 2;
 - (f) An additional 84+MW power plant sub-station utility facility in the EID District for primary power usage that will complete the power consumption plan for the entire site;

- (g) A primary closed-loop water cooling utility system to cool each Data Center building;
- (h) A back-up closed-loop water cooling utility system for each Data Center building;
- (i) Parking and security fencing for the entire Data Center;
- (j) Full certification and commissioning of the each building in the Data Center, including all the elements required to complete the Data Center campus; and
- (k) A 1728 strand fiber optics utility network that connects the Data Center to the downtown Chicago superhub. This will result in direct fiber connection to the following carriers:

Tier 1 Fiber Providers:

- (1) Zayo
- (2) Wide Open West
- (3) Crown Castle
- (4) Windstream
- (5) CenturyLink/Level 3
- (6) Comcast
- (7) ATT
- (8) US Signal
- (9) Telia Carrier
- (10) Verizon

Tier 2 Service Providers:

- (11) NYI
- (12) Cincinnati Bell (Legacy ATT)
- (13) Consolidated Telephone
- (14) Comcast
- (15) Everstream
- (16) Colt
- (17) Megaport
- (18) 365 Data Centers
- (19) Segra
- (20) Hurricane Electric
- (21) Metronet
- (22) Cogent
- (23) Hibernia Networks
- (24) Telia
- (25) SDN Comm
- (26) Verizon Business
- (27) Crown Castle
- (28) Independent Fiber Networks
- (29) China Telecom



(30) ATT

(31) Centurylink

(32) SHAW

(33) Fusion

(34) RCN

(35) Atlantic Metro

(36) GTT

(37) Hypercore.



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SECTION 11 Zone 3 will be used to expand the Data Center beyond the Initial Data Center Development in the near future. Zone 3 will be not benefit from the Initial Data Center Development made in the EID District until such anticipated development expansion begins in the new future.

SECTION 12 The HRC will benefit from the new property taxes to be derived from the EID District in excess of the taxes attributable to the base assessed value of the property in the EID District that will enable the HRC to pay debt service on bonds issued under IC 36-7-14.25.1, or to make payments or provide security on leases payable under IC 36-7-14-25.2, in order to provide public improvements in the EID District.

SECTION 13 Each owner of a building in a Zone will benefit from its ability to obtain funding from the Board to finance the cost of DX Hammond Economic Improvement Projects made in the Zone by such owner based upon the Special Assessments (defined below) paid by such owner using the financing structure allowable under IC 36-7-22-22.

SECTION 14 The EID District was a vacant property prior to the development of the Data Center.

SECTION 15 The benefits provided by completion of all the improvements made for the Data Center are all new benefits and will not replace benefits existing before the establishment of the EID District and the completion of DX Hammond Economic Improvements Projects.

SECTION 16 The assessment revenues to be collected and deposited into the Economic Improvement Fund (defined below) for the Board shall be done on a Zone by Zone basis ("Special Assessments"). The Board shall establish, have and maintain subaccounts within the Economic Improvement Fund in which the Special Assessments for each Zone shall be assessed, collected and deposited by the Board ("Economic Improvement Fund"). The Board shall have a December 31st fiscal yearend ("Fiscal Year").

SECTION 17 The amount of the assessment revenue collected from each Zone shall be based solely upon the amount of annual Special Assessments necessary for each Fiscal year to (a) cover the annual cost of the Board operating the EID District allocated by the Board to each Zone, and (b) make the annual payment of all or a portion of the debt service and other related expenses on bonds issued to fund all or a portion of the cost of DX Hammond Economic Improvement Projects in such Zone as determined by the Board ("EID Bonds"), including but not limited to the payment of debt service for any bonds issued by the Board, HRC, HEDC or the City to support new DX Hammond Economic Improvement Projects made for a respective Zone

(collectively referred as the "Method of Determining Annual Special Assessment Amount"). The annual cost of the Board operating the EID District shall be allocated to a Zone by the Board based on a Zone's percentage of the total remaining outstanding EID Bonds issued for the EID District as of January 1 of each Fiscal Year.

SECTION 18 EID Bonds will not be issued for Zone 3 until an amendment to this Ordinance is passed by the City in accordance with the Act, subject to the prior written consent Sam Townline Development, Inc, and its successor and assigns ("collectively referred to as the "STD") and DX Hammond OpCo, LLC and its successor and assigns ("collectively referred to as the "Developer")

SECTION 19 The EID Bonds, and the interest payable thereon, shall not represent or constitute a debt of the City, the State of Indiana ("State") or any political subdivision or taxing authority thereof within the meaning of the provisions of the constitution or statutes of the State or any political subdivision or taxing authority thereof.

SECTION 20 Neither the faith and credit nor the taxing power of the City, the State or any political subdivision or taxing authority thereof shall be pledged to the payment of the principal of premium if any, or the interest on the EID Bonds; The EID Bonds shall not grant the owners or colders thereof any right to have the City, the State or its general assembly or any political subdivision or taxing authority of the State, levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the EID Bonds.

SECTION 21 The EID Bonds shall not grant the owners or holders thereof any right to have the City, the State or its general assembly or any political subdivision or taxing authority of the State, levy any taxes or appropriate any funds for the payment of the principal of, premium, if any, or interest on the EID Bonds.

SECTION 22 The Method of Determining Annual Special Assessment Amount shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.

SECTION 23 The Special Assessment for a Zone shall only be applied and used to (a) cover the annual cost of the Board operating the EID District allocated to the Zone by the Board, and (b) make the annual payment of all or a portion of the debt service and other related expenses on EID Bonds issued for the cost of design, development and construction of the DX Hammond Economic Improvement Projects in the Zone (collectively referred to as the "Method of Application of Special Assessment").

SECTION 24 The Method of Application of Special Assessment shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.

SECTION 25 The entire amount of proceeds from the EID Bonds issued to fund all or a portion of the cost of the DX Hammond Economic Improvement Projects in the Zone shall be

allocated to the Zone in which such improvements are made after all expenses and costs are paid with respect to the issuance of such EID Bonds and compliance with the Act (collectively referred to as the "Method of Allocation of EID Bonds Proceeds").

SECTION 26 The Method of Allocation of EID Bonds Proceeds shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.

SECTION 27 The proceeds from the EID Bonds allocated to a Zone shall only be used to reimburse or fund cost incurred by the owner of a DX Hammond Economic Improvement Project in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by the EID Bonds (collectively referred to as the "Allowable Use of EID Bond Proceeds").

SECTION 28 The Allowable Use of EID Bond Proceeds shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the Eity, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.

SECTION 29 Effectively 100% of Special Assessments collected from a Zone shall benefit the Zone from which it is collected and enables the completion of all or a portion of the DX Hammond Economic Improvement Projects made in the Zone that are funded by an EID Bonds.

SECTION 30 The annual Special Assessments for each Zone shall be allocated to and paid by each real property owner in the Zone to the Board based upon the percentage of the total cost of the DX Hammond Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone relative to the total cost of the DX Hammond Economic Improvement Projects funded by the EID Bonds in the Zone as determined by the Board as of each EID Bond Financing (defined below) closing date as set forth in the EID Development Agreement (defined below) for such projects funded by such EID Bonds (collectively referred to as the "Method of Allocation of Annual Special Assessment").

SECTION 31 The Method of Allocation of Annual Special Assessment shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.

SECTION 32 The annual Special Assessment schedule for each year during the term of any EID Bonds shall be determined as of the closing date of such EID Bonds and be included in and made a part of the EID Development Agreement (defined below) for such EID Bonds (the "Special Assessment Schedule").

SECTION 33 The method of determining the Special Assessment Schedule as set forth above shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds (collectively referred to as the "Method of Determining Special Assessment Schedule").

- SECTION 34 The Board may exempt a business established within the EID District after the creation of the EID District from assessment of any type for a period not to exceed one (1) year as contemplated under IC 36-7-22-10.
- SECTION 35 The plan for the application of assessment revenue and formula to be used for the assessment of special benefits shall be based upon the Method of Determining Annual Special Assessment Amount, the Method of Application of Special Assessment, Method of Allocation of EID Bonds Proceeds, Allowable Use of EID Bonds Proceeds, Method of Allocation of Annual Special Assessment, Method of Determining Special Assessment Schedule, and Method of Determining Annual Excess Zone Expense (defined below) and implemented as set forth in Exhibit H attached (collectively referred to as "Plan for Application and Assessment Formula").
- SECTION 36 The Plan for Application and Assessment Formula is based upon the following, which are reasonably representative of the diffusion of benefits from the Data Center accruing to all parcels of real property within the City and within the District:
 - (a) proximity of each parcel to the Data Center;
 - (b) accessibility of each parcel to the Data Center;
 - (c) true cash value of each parcel;
 - (d) true cash value of any improvement on each parcel;
 - (e) age of any improvement on each parcel; and
 - (f) other similar factors, including without limitation the total cost of the DX Hammond Economic Improvement Projects owned by a real property owner and funded by the EID Bonds in the Zone;

and adjusted by:

- (x) the establishment of three zones within the District, to delineate the approximate difference in beneficial impact of the Data Center and EID Bonds, which varies from one area to another within the District; and
- (y) the zoning classification and use of the property, in order to encourage and enable the retention and development of various land uses within the District.
- SECTION 37 The signing of the Special Assessment Schedule for each calendar year by a majority of the members of the Board and the delivery of the schedule to the Auditor shall constitute a final and conclusive determination of the benefits that are assessed (the "Annual Special Assessment Schedule").
- SECTION 38 The Board shall supplement each annual Special Assessment Schedule certified by the Board to the Auditor (the "Assessment Supplement Statement") by:

- (a) Designating the Special Assessment as an "EID Bond Payment Special Assessment;" and
- (b) Allocating the EID Bond Payment Special Assessment into the following four categories:
 - (1) Interest;
 - (2) Principal;
 - (3) Other EID Bond Expenses; and
 - (4) Other EID District Expenses.

SECTION 39 The Auditor shall cause the information set forth in the Assessment Supplement Statement to be reflected on the tax statements of the persons owning the property affected by the Special Assessment as prepared by the Treasurer of Lake County.

SECTION 40 Each Special Assessment shall be a lien on the real property that is assessed, second only to the ad valorem property taxes levied on the property located in the EID District as set forth and contemplated in IC 36-7-22-12(g) (the "Statutory Lien") and shall be in compliance with IC 36-7-22-12 and any other applicable provisions under the Act.

SECTION 41 There shall be no other assessments of any type within the EID District.

SECTION 42 The Special Assessments with respect to EID Bonds are to remain in place for a period of up to twenty-five (25) years from the date when such EID Bonds is issued to finance a portion of the DX Hammond Economic Improvement Projects.

SECTION 43 Any property owned by the HRC and used for an exempt purpose that is located in the EID District is and shall continue to be exempt from property taxation under IC 6-1.1-10.

SECTION 44 Any property owned by the HRC that is located in the EID District and used for an exempt purpose is and shall continue to be exempt from assessments of any type within the EID District.

SECTION 45 Any property located in Zone 3 is and shall continue to be exempt from assessments of any type within the EID District under this Ordinance.

SECTION 46 The total special assessments within the District in any calendar year shall not exceed:

- (a) \$3,415,000.00 in Zone 1 (the "Zone 1 Maximum Total Special Assessment");
- (b) \$3,415,000.00 in Zone 2 (the "Zone 2 Maximum Total Special Assessment"); and
- (c) \$-0- in Zone 3 (the "Zone 3 Maximum Total Special Assessment").

SECTION 47 Any debt service on EID Bonds, any other Board expenses attributable to EID Bonds, or other EID District expenses attributable to DX Hammond Economic Improvement

Projects owned by the real property owner and funded by the EID Bonds in the Zone that are in excess of the annual amount set forth in the Special Assessment Schedule at the closing of such EID Bonds (collectively referred to as "Annual Excess Zone Expenses") shall be paid by such owner as determined by the Board in accordance the EID Development Agreement (defined below) and the other documents for such EID Bonds (collectively referred to as the "Method of Determining Annual Excess Zone Expense").

SECTION 48 The Method of Determining Annual Excess Zone Expense shall be set forth in and implemented in accordance with an EID Development Agreement (defined below) by and among the City, HERC, HRC and the owner of the DX Hammond Economic Improvement Projects funded by any EID Bonds.

SECTION 49 For the District, an economic improvement board under the Act shall be, and is hereby, established (such economic improvement board, the "Board"), which Board is hereby designated the "DX Hammond Economic Improvement Board". The Board shall have three members appointed by the City. One member shall be appointed by the City to represent:

- (a) the City and the HRC ("City Representative"),
- (b) the STD and its successors and assigns ("STD Representative"), and
- (c) the Developer and its successors and assigns ("Developer Representative"

SECTION 50 This Common Council hereby appoints the following persons as the initial members of the Board:

 , as the City Representative
, as the STD Representative
 , as the Developer Representative

This Common Council may at any time or from time to time appoint and remove without cause any person as a member of the Board. Each person appointed as a member of the Board shall serve for a term (a) commencing on the later of (i) such person's appointment, or (ii) such person's qualification; and (b) ending on the earliest of (i) such person's removal, (ii) such person's disqualification, or (iii) such person's resignation. The appointment of each new member of the Board shall be subject to the prior written approval of the Developer.

SECTION 51 It is intended that the Board shall be treated as an organization contemplated in Section 115(2) of the Internal Revenue Code.

SECTION 52 Any EID Bonds for the District shall be issued as provided in and in accordance with IC 36-7-22-22 as determined from time to time by the Board ("EID Bond Financing").

SECTION 53 In addition to the Statutory Lien, the Board shall have and retain the right to also enforce, pursue, collect and secure the payment of each Special Assessment by agreement or

instrument with a security interest in and on any other property located in the EID District as determined by the Board, including by mortgage, security agreement, UCC filings and any other form of secured transaction, upon the written consent and agreement of the owner of such property ("Other Collateral").

SECTION 54 The Board shall have and retain the right to pledge and assign the Special Assessment and any Other Collateral to secure the EID Bonds as determined from time to time by the Board.

SECTION 55 With each EID Bonds issued, the Board shall enter into a development agreement with the City, HERC, HRC and the property owner seeking to fund its DX Hammond Economic Improvement Project (for each EID Bond Financing, an "EID Development Agreement"). A memorandum of the EID Development Agreement disclosing the HRC Waiver Provision (defined below) along with any other provisions required by the City shall be recorded in the offices of the Recorder and the Auditor of the County as part of the closing of each EID Bond.

SECTION 56 For as long as the HRC owns land or improvements in the EID District, each EID Development Agreement shall have a waiver provision substantially similar to the provision below included therein (collectively referred to as the "HRC Waiver Provision"):

"The City, HERC and HRC, including all subsequent property owner(s) of any portion of the land located in the EID District, hereby waive its rights (if any) to file an action to contest the HRC's status as an owner of land or improvements in the EID District under the Act or the validity of the EID District ordinance adopted to establish the EID District and Zones 1, 2, and 3 under

"The City, HERC and HRC, including all subsequent property." owner(s) of any portion of the land located in the EID District hereby waive its rights (if any) to file an action to contest the HRC's status as an owner of land or improvements in the EID District under the Act or the validity of the EID District ordinance adopted to establish the EID District and Zones 1, 2, and 3 under IC 36-7-22-7 as contemplated under IC 36-7-22-13 whether available any time to such property owner as of or after the date of this Agreement or which subsequently may be authorized by the General Assembly of the State of Indiana. Any subsequent property owners of land located in the EID District shall be required to acknowledge the existence of the EID District and declare and make the same waivers as set forth above concurrent with purchase of such land; provided however, in no event shall the City, HERC or HRC be subject to assessment in the EID District at any time."

SECTION 57 The Auditor of the County, the Treasurer of the County and each other officer of the County shall be, and hereby is, authorized and directed, for and on behalf of the County, to execute and deliver any instrument and take any other action determined by such officer to be necessary or convenient to carry out the purposes of this Ordinance, which determination shall be conclusively evidenced by such officer's execution and delivery of such instrument or taking of such other action.

SECTION 58 Should any provision (section, paragraph, sentence, clause or any other portion) of this Ordinance be declared by a court of competent jurisdiction to be invalid for any

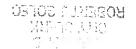
reason, the remaining provisions shall not be affected, if such remaining provisions can, without the invalid provision, be given the effect intended by this Common Council in adopting this Ordinance. To this end, the provisions of this Ordinance are severable.

SECTION 59 When implementing this Ordinance, this Ordinance and the Act shall be liberally construed by the parties to affect the purposes of this Ordinance and the Act to the extent allowed under Indiana law.

SECTION 60 This Ordinance shall be in full force and effect upon adoption and compliance with Indiana Code Section 36-2-4-8.

SECTION 61 This Ordinance may be amended in accordance with the Act. Any amendment to this Ordinance shall be subject to prior written approval of the Developer.

BE IT FURTHER ORDAINED that this Ordinance shall have full force and effect from and after the passage of the Common Council upon signing by the President thereof and the approval of the Mayor.



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n Warne L Gray Steath ROBERT J GOLEG RECEIVED EXHIBIT B

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EXHIBIT C

ZONE 2

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Exhibit C - 1

EXHIBIT D

ZONE 3

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Exhibit D - 1

EXHIBIT E

DX HAMMOND ECONOMIC IMPROVEMENT PROJECTS DETAILED DESCRIPTIONS AND COST ESTIMATES

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Exhibit E - 1

EXHIBIT F

GENERAL DATA CENTER INFORMATION

DATA CENTERS

Jobs and Opportunities in Communities Nationwide

By: U.S., Chamber of Commerce Technology Engagement Center

May 17, 2017

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Exhibit F - 1

RECEIVED EXHIBIT G

2021 JANDATA GENTER BUSINESS RECRUITMENT

The entire Data Center will support business recruitment within the EID District as contemplated under IC 6-7-22-3(4). The Data Center provides for the establishment of a colocation facility in Hammond, Indiana The Data Center will bring significant, new fiber assets to the EID District and provide the EID District City access to new state of the art telecommunication services. These services are critical for a community to provide access to competitively priced broadband.

The initial data center that locates in a community often serves as a "carrier hotel", a place where national and international carriers can provide a point of presence to serve both data center and community customers. The fiber providers and those that deliver telecommunication services to consumers are CLECs and ILECs and governed by the Indiana Utility Regulatory Commission ("IURC"). See the copy of the article attached as Exhibit G-1.

As a colocation facility, the Data Center constantly seeks to recruit enterprise customers and telecommunication carriers to the EID District. Data centers typically locate in clusters once the initial data center has been established. Enterprise customers are risk adverse and desire to see the first facility constructed and operational to prove that the location has the power and infrastructure capable to reliability serve a data center. This means: (a) that data centers and its carrier hotels are both EID District assets and local community assets that provide significant public benefits to the City; and (b) that the data centers support the attraction of new businesses and investment to the EID District.

Data centers also have a significant positive impact on the EID District. They tend to require enhancements to infrastructure such as roads, water, sewer, and to power. This infrastructure development tends to support higher employment uses and, in some cases, accelerates employment growth that otherwise would not occur in the foreseeable future within the EID District.² See the copy of the article attached as **Exhibit G-2**.

In March 2018, the research firm RTI International published a report confirming a frequently quoted statistic about the multiplier effect of data centers: "for every 1 data center worker, there were 5 jobs supported elsewhere in the economy by operating expenditures—after the surge of jobs caused by the capital expenditures." See the copy of the article attached as **Exhibit G-3**.

According to a recent U.S. Chamber of Commerce's Chamber Technology Engagement Center (C_TEC) report, the average data center has the possibility of adding \$32.5 million to the local economy every year. Additionally, data center construction has the opportunity to create an extended economic impact. The same C_TEC report found that during construction a data center will spend an average of \$77.7 million on 1,688 local workers. This figure coupled with the average \$9.9 million in revenue paid to local governments and the state on yearly basis, can

¹ Go to: https://siteselection.com/issues/2011/sep/sas-optical-infrastructure.cfm

² Go to: https://www.areadevelopment.com/data-centers/Data-Centers-Q1-2015/impact-of-data-center-development-locally-2262766.shtml

³ https://imasons.org/imasons-blog/data-centers-impact-on-local-economies/

provide the funds needed to support public services and thus further bolster the local economy.⁴ See the copy of the article attached as **Exhibit G-4**.

In an increasingly interconnected work, the Data Center will play a key role in bringing business, their partners and their customers together, and it is importance is growing exponentially.⁵ See the copy of the article attached as **Exhibit G-5**.

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⁴ Go to: https://www.raritan.com/blog/detail/measuring-the-economic-impact-of-one-data-center

⁵ Go to: https://www.gartner.com/imagesrv/media-products/pdf/global-switch/global-switch1-3QSK5N9.pdf

THE IMPORTANCE OF BROADBAND TO ECONOMIC DEVELOPMENT

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Exhibit G-1 - 1

THE MYSTERY IMPACT OF DATA CENTERS ON LOCAL ECONOMIES REVEALED

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Exhibit G-2 - 1

DATA CENTERS' IMPACT ON LOCAL ECONOMIES

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MEASURING THE ECONOMIC IMPACT OF ONE DATA CENTER

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Exhibit G-4 - 1

THE INTERCONNECTED ECOSYSTEM

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Exhibit G-5 - 1

EXHIBIT H

2021 JAN OF APPLICATION AND ASSESSMENT FORMULA

Plan for the Application of Assessment Revenue to the Cost of the Economic Improvement Projects within each Zone.

- Step 1. Apply the Method of Determining Annual Special Assessment Amount. The amount of the assessment revenue collected from each Zone shall be based solely upon the amount of annual Special Assessments necessary for each Fiscal year to (a) cover the annual cost of the Board operating the EID District allocated by the Board to each Zone and (b) make the annual payment of all or a portion of the debt service and other related expenses on debt issued to fund all or a portion of the cost of DX Hammond Economic Improvement Projects in such Zone as determined by the Board ("EID Bonds"), including but not limited to the payment of debt service for any debt issued by the Board, HRC, HEDC or the City to support new DX Hammond Economic Improvement Projects made for a respective Zone (collectively referred as the "Method of Determining Annual Special Assessment Amount"). The annual cost of the Board operating the EID District shall be allocated to a Zone by the Board based on a Zone's percentage of the total remaining outstanding EID Bonds issued for the EID District as of January 1 of each year.
- Step 2. Apply the Method of Application of Special Assessment. The Special Assessment for a Zone for each Fiscal year shall only be applied and used to (a) cover the annual cost of the Board operating the EID District allocated to the Zone by the Board and (b) make the annual payment of all or a portion of the debt service and other related expenses on EID Bonds issued for the cost of design, development and construction of the Economic Improvement Projects in the Zone.

Formula Used for The Assessment of Benefits

- Step 1. Apply Method of Allocation of EID Bond Proceeds. The entire amount of proceeds from the EID Bonds issued to fund all or a portion of the cost of the DX Hammond Economic Improvement Projects in the Zone shall be allocated to the Zone in which such improvements are made after all expenses and costs are paid with respect to the issuance of such EID Bonds and compliance with the Act.
- Step 2. Method of Allocation of Annual Special Assessment. The annual Special Assessment for each Zone for each Fiscal Year shall be allocated to and paid by each real property owner in the Zone to the Board based upon the percentage of the total cost of the Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone ("Total Owner Bond Funded Improvements") relative to the total cost of the Economic Improvement Projects funded by the EID Bonds in the Zone as determined by the Board as of each Zone EID bond closing date ("Total Zone Bond Funded Improvements") as set for in the EID Development Agreement for such projects funded by such EID Bonds

According the Formula Used for the Assessment of benefits shall be:

Total Zone Annual Special Assessment x (Total Owner Bond Funded Improvements/Total Zone Bond Funded Improvements) = Zone Owner Annual Special Assessment

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EXHIBIT A

EID DISTRICT

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Exhibit A - 1

LEGAL DESCRIPTION

LAND DESCRIPTION - TAX PARCEL

A part of Section 36, Township 38 North, Range 10 West of the 2nd Principal Meridian, Lake County, Indiana more particularly described as follows:

Commencing at the a brass plug on the State Line between Illinois and Indiana marking the original location of a monument placed by the United States Government in 1838; thence North 00 degrees 38 minutes 49 seconds East (bearings based upon a survey by Atwell-Group, job number 13001097. certified by Eric Brand, LS 21200001 on July 15, 2013) along said state line a distance of 202.28 feet to the POINT OF BEGINNING, being a point on the northeast right—of—way line of the Elgin, Joliet, and Eastern Railway Company (formerly the Chicago Lake Shore and Eastern Railway Company); thence continuing along said state line North 00 degrees 38 minutes 49 seconds East a distance of 41.82 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 1200.00 feet; thence South 39 degrees 49 minutes 11 seconds East a distance of 2690.65 feet; thence South 50 degrees 10 minutes 05 seconds West a distance of 748.83 feet; thence South 26 degrees 34 minutes 00 seconds East a distance of 154.12 feet; thence South 50 degrees 10 minutes 05 seconds West a distance of 458.34 feet; thence North 39 degrees 45 minutes 04 seconds West a distance of 809.54 feet to a non-tangent curve to the right having a radius of 17,347.11 feet and chord bearing North 39 degrees 26 minutes 26 seconds West a distance of 195.98 feet: thence northerly along said curve a distance of 195.98 feet; North 39 degrees 06 minutes 59 seconds West a distance of 1,474.64 feet to a curve to the left having a radius of 5,986.00 feet and chord bearing North 40 degrees 41 minutes 29 seconds West a distance of 329.11; thence northerly along said curve a distance of 329.15 feet to the POINT OF BEGINNING, containing 77.825 acres, more or less.

A part of Section 36, Township 38 North, Range 10 West of the 2nd Principal Meridian, Lake County, Indiana more particularly described as follows:

Commencing at the a brass plug on the State Line between Illinois and Indiana marking the original location of a monument placed by the United States Government in 1838; thence North 00 degrees 38 minutes 49 seconds East (bearings based upon a survey by Atwell-Group, job number 13001097. certified by Eric Brand, LS 21200001 on July 15, 2013) along said state line a distance of 202.28 feet to a point on the northeast right-of-way line of the Elgin, Joliet, and Eastern Railway Company (formerly the Chicago Lake Shore and Eastern Railway Company); thence continuing along said state line North 00 degrees 38 minutes 49 seconds East a distance of 41.82 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 35.31 feet; thence South 86 degrees 33 minutes 56 seconds East a distance of 118.59 feet; thence South 07 degrees 57 minutes 28 seconds West a distance of 67.29 feet to the POINT OF BEGINNING; thence South 84 degrees 13 minutes 08 seconds East a distance of 101.42 feet; thence South 62 degrees 13 minutes 20 seconds East a distance of 52.44 feet; thence South 40 degrees 13 minutes 35 seconds East a distance of 33.60 feet to a non-tangent curve to the right having a radius of 390.00 feet and chord bearing South 88 degrees 41 minutes 51 seconds West a distance of 178.0 westerly along said curve a distance of 179.62 feet; thence North 07 degrees 57 minutes 28 seconds East a distance of 64.98 feet to the POINT OF BEGINNING, containing 0.217 acres, more or less.

Also Excepting therefrom:

A part of Section 36, Township 38 North, Range 10 West of the 2nd Principal Meridian, Lake County, Indiana more particularly described as follows:

Commencing at the a brass plug on the State Line between Illinois and Indiana marking the original location of a monument placed by the United States Government in 1838; thence North 00 degrees 38 minutes 49 seconds East (bearings based upon a survey by Atwell—Group, job number 18001097, certified by Eric Brand, LS 21200001 on July 15, 2013) along said state line a distance of 202.28 feet to a point on the northeast right of the Elgin, Joliet, and Eastern Railway Company (formerly the Chicago Loke Shore and Eastern Railway Company); thence continuing along said state line North 00 degrees 38 minutes 49 seconds East a distance of 41.82 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 379.87 feet; thence South 41 degrees 11 minutes 18 seconds East a distance of 349.43 feet to the POINT OF BEGINNING; thence North 50 degrees 09 minutes 29 seconds East a distance of 158.91 feet; thence South 39 degrees 50 minutes 31 seconds East a distance of 79.46 feet; thence North 50 degrees 02 minutes 41 seconds East a distance of 32.00 feet; thence South 39 degrees 49 minutes 53 seconds East a distance of 273.10 feet; thence South 49 degrees 47 minutes 52 seconds West a distance of 19.27 feet; thence South 40 degrees 08 minutes 24 seconds East a distance of 81.52 feet; thence North 49 degrees 52 minutes 47 seconds East a distance of 18.83 feet; thence South 39 degrees 49 minutes 53 seconds East a distance of 29.30 feet; thence South 50 degrees 40 minutes 12 seconds West a distance of 30.27 feet; thence South 39 degrees 02 minutes 34 seconds East a distance of 32.21 feet; thence North 50 degrees 40 minutes 12 seconds East a distance of 30.71 feet; thence South 39 degrees 49 minutes 53 seconds East a distance of 81.00 feet; thence South 45 degrees 02 minutes 39 seconds West a distance of 81.75 feet; thence South 52 degrees 00 minutes 57 seconds West a distance of 90.78 feet to a curve to the right having a radius of 50.00 feet and chord bearing South 76 degrees 10 minutes 39 seconds West a distance of 40.93 feet; thence westerly along said curve a distance of 42.17 feet; thence North 79 degrees 39 minutes 24 seconds West a distance of 85.40 feet; thence North 63 degrees 08 minutes 36 seconds West a distance of 154.03 feet; thence North 39 degrees 56 minutes 34 seconds West a distance of 396.33 feet; thence North 49 degrees 57 minutes 39 seconds East a distance of 109.00 feet; thence South 39 degrees 44 minutes 40 seconds East a distance of 40.83 feet; thence North 50 degrees 09 minutes 29 seconds East a distance of 25.50 feet to the PONT OF BEGINNING, containing 4.034 acres, more or less.

(continued on Page 2)

Note:

This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.

The basis of bearings for this exhibit is based upon surveys by Atwell-Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013 and by Torrenga Surveying, LLC, job number 2018-0293, certified by John Stuart Allen, LS 29900011 on November 30, 2018.

PREPARED BY		
	HWC	
	ENGINEERING	

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> INDIANAPOLIS - TERRE HAUTE LAFAYETTE - MUNCIE - NEW ALBANY

CITY OF HAMMOND

DX HAMMOND

EID DISTRICT

LAKE COUNTY, INDIANA

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LEGAL DESCRIPTION

LAND DESCRIPTION - TAX PARCEL

Also Excepting therefrom:

A part of Section 36, Township 38 North, Range 10 West of the 2nd Principal Meridian, Lake County, Indiana more particularly described as follows:

Commencing at the a brass plug on the State Line between Illinois and Indiana marking the original location of a monument placed by the United States Government in 1838; thence North 00 degrees 38 minutes 49 seconds East (bearings based upon a survey by Atwell-Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013) along said state line a distance of 202.28 feet to a point on the northeast right-of-way line of the Elgin, Joliet, and Eastern Railway Company (formerly the Chicago Lake Shore and Eastern Railway Company); thence continuing along said state line North 00 degrees 38 minutes 49 seconds East a distance of 41.82 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 1200.00 feet; thence South 39 degrees 49 minutes 11 seconds East a distance of 2160.87 feet; thence South 50 degrees 00 minutes 14 seconds West a distance of 29.37 feet to the POINT OF BEGINNING; thence South 39 degrees 43 minutes 13 seconds East a distance of 512.01 feet; thence South 50 degrees 03 minutes 37 seconds West a distance of 247.20 feet; thence South 39 degrees 42 minutes 14 seconds West a distance of 27.15 feet; thence South 50 degrees 05 minutes 22 seconds West a distance of 377.22 feet; thence North 39 degrees 43 minutes 48 seconds West a distance of 241.32 feet; thence North 25 degrees 36 minutes 14 seconds East a distance of 308.59 feet; thence North 04 degrees 56 minutes 40 seconds East a distance of 208.03 feet; thence North 50 degrees 00 minutes 14 seconds East a distance of 224.50 feet to the POINT OF BEGINNING, containing 6.086 acres, more or less.

Total Area after exceptions is 67.488 acres, more or less.

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This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.

The basis of bearings for this exhibit is based upon surveys by Atwell-Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013 and by Torrenga Surveying, LLC, job number 2018–0293, certified by John Stuart Allen, LS 29900011 on November 30, 2018.



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317-347-3663

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DX HAMMOND **EID DISTRICT**

CITY OF HAMMOND LAKE COUNTY, INDIANA

PG 2 OF 8

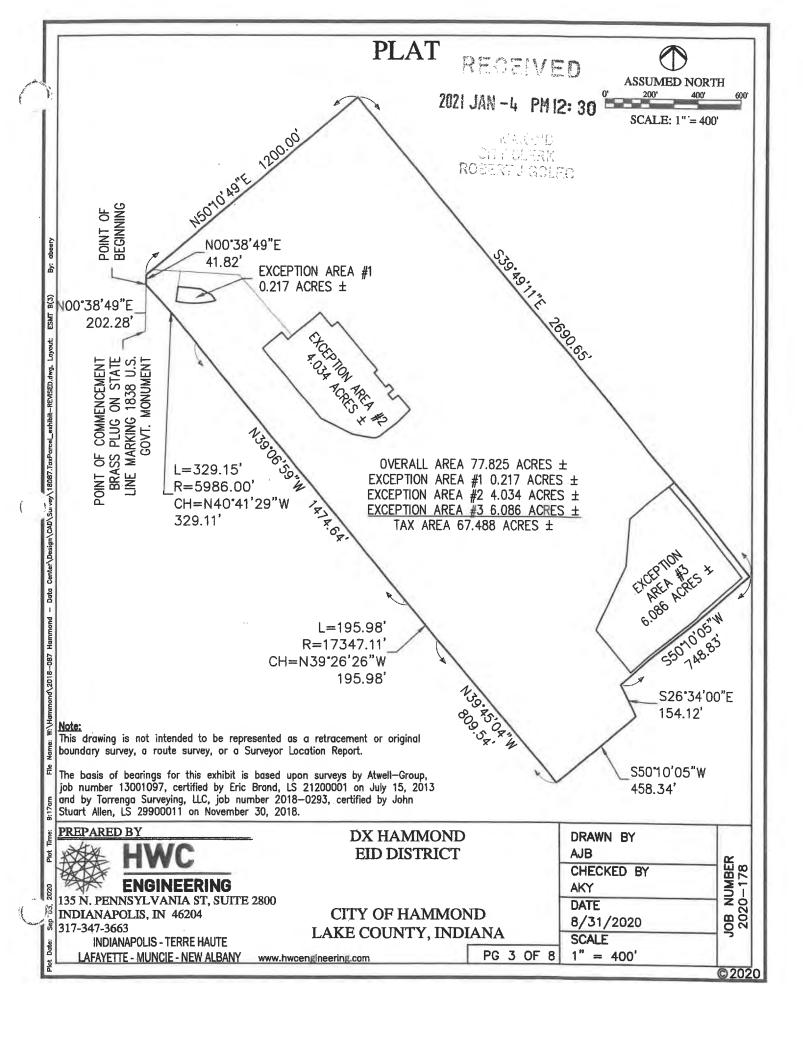
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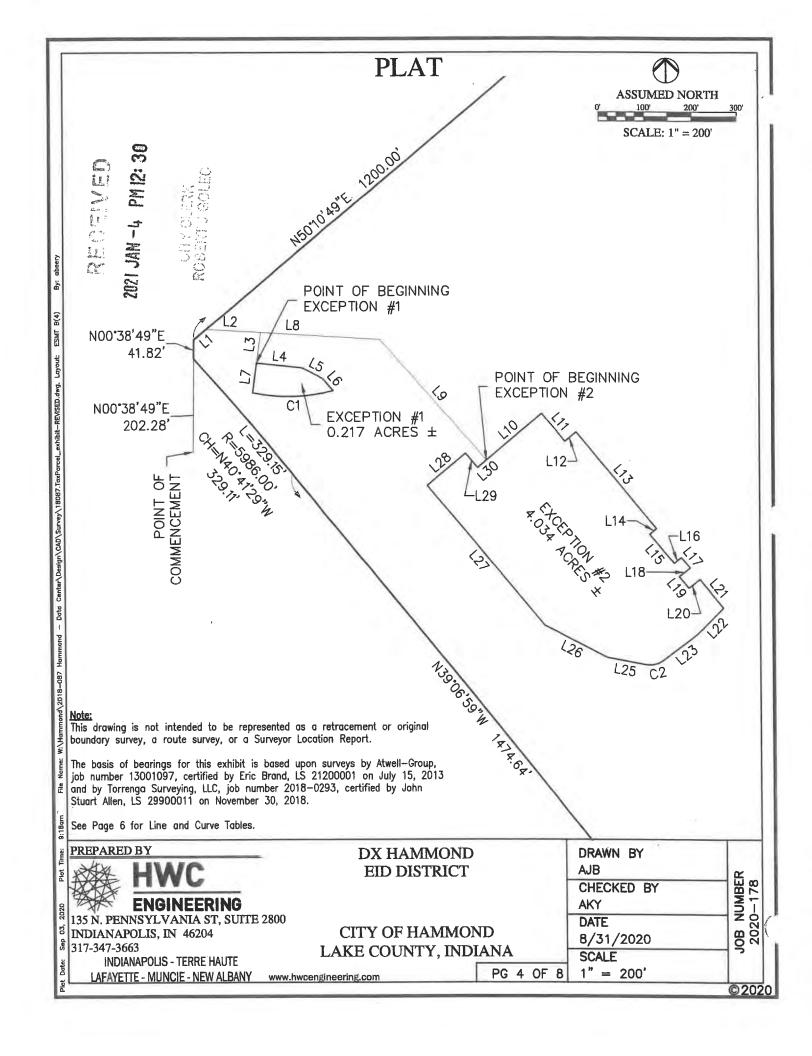
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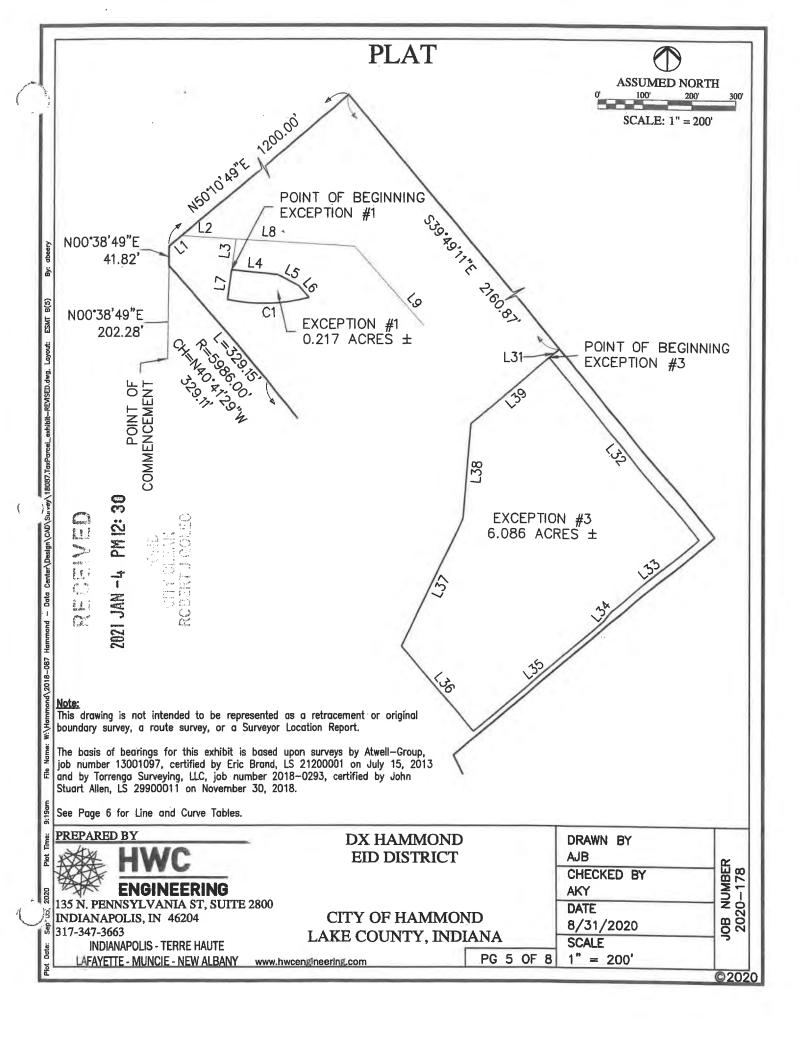
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PLAT

	Line Table	
Line #	Direction	Length
L1	N50°10'49"E	35.31
L2	S86°33'56"E	118.59'
L3	S07°57'28"W	67.29
L4	S84"13'08"E	101.42'
L5	S62*13'20"E	52.44
L6	S40"13'35"E	33.60'
L7	N07'57'28"E	64.98'
L8	S86°33'56"E	379.87
L9	S41"11'18"E	349.43'
L10	N50°09'29"E	158.91
L11	S39'50'31"E	79.46
L12	N50°02'41"E	32.00'
L13	S39'49'53"E	273.10
L14	S49°47'52"W	19.27
L15	\$\$40°08'24"E	81.52

Line Table		
Line #	Direction	Length
L16	N49*52'47"E	18.83'
L17	S39'49'53"E	29.30'
L18	S50'40'12"W	30.27
L19	S39'02'34"E	32.21'
L20	N50°40'12"E	30.71
L21	S39*49'53"E	81.00
L22	S45'02'39"W	81.75'
L23	S52'00'57"W	90.78'
L25	N79°39'24"W	85.40'
L26	N63'08'36"W	154.03'
L27	N39*56'34"W	396.33
L28	N49'57'39"E	109.00'
L29	S39'44'40"E	40.83
L30	N50°09'29"E	25.50'

Line Table		
Line #	Direction	Length
L31	S50°00'14"W	29.37'
L32	S39°43'13"E	512.01
L33	S50'03'37"W	247.20'
L34	S39'42'14"W	27.15'
L35	S50°05'22"W	377.22'
L36	N39°43'48"W	241.32'
L37	N25'36'14"E	308.59
L38	N04°56'40"E	208.03
L39	N50'00'14"E	224.50

Acres .	43	
	JAN -4 PMIZ:	ROBERT J GOLDE
	202	Jim Hhaas

		Curve	Table	
Curve #	Arc. Length	Radius	Chord Bearing	Chord Length
C1	179.62'	390.00'	S88*41'51"W	178.04
C2	42.17'	50.00'	S76°10'39"W	40.93'

This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.

The basis of bearings for this exhibit is based upon surveys by Atwell-Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013 and by Torrenga Surveying, LLC, job number 2018-0293, certified by John Stuart Allen, LS 29900011 on November 30, 2018.

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INDIANAPOLIS - TERRE HAUTE

DX HAMMOND **EID DISTRICT**

CITY OF HAMMOND LAKE COUNTY, INDIANA

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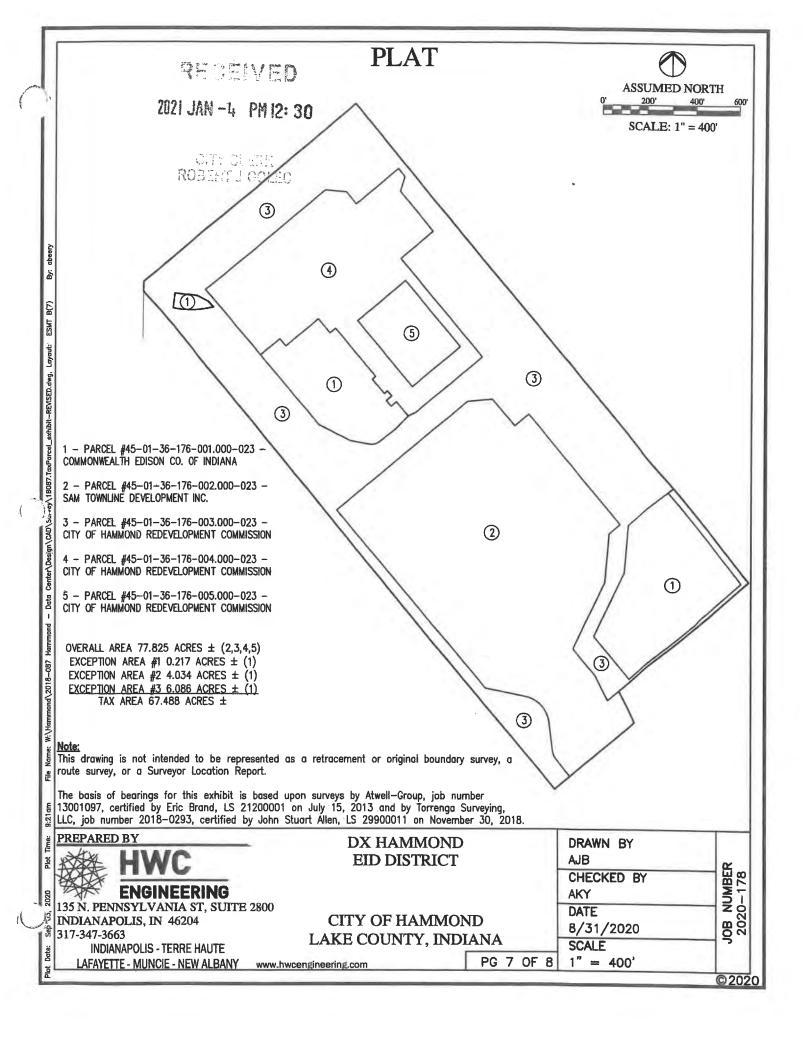
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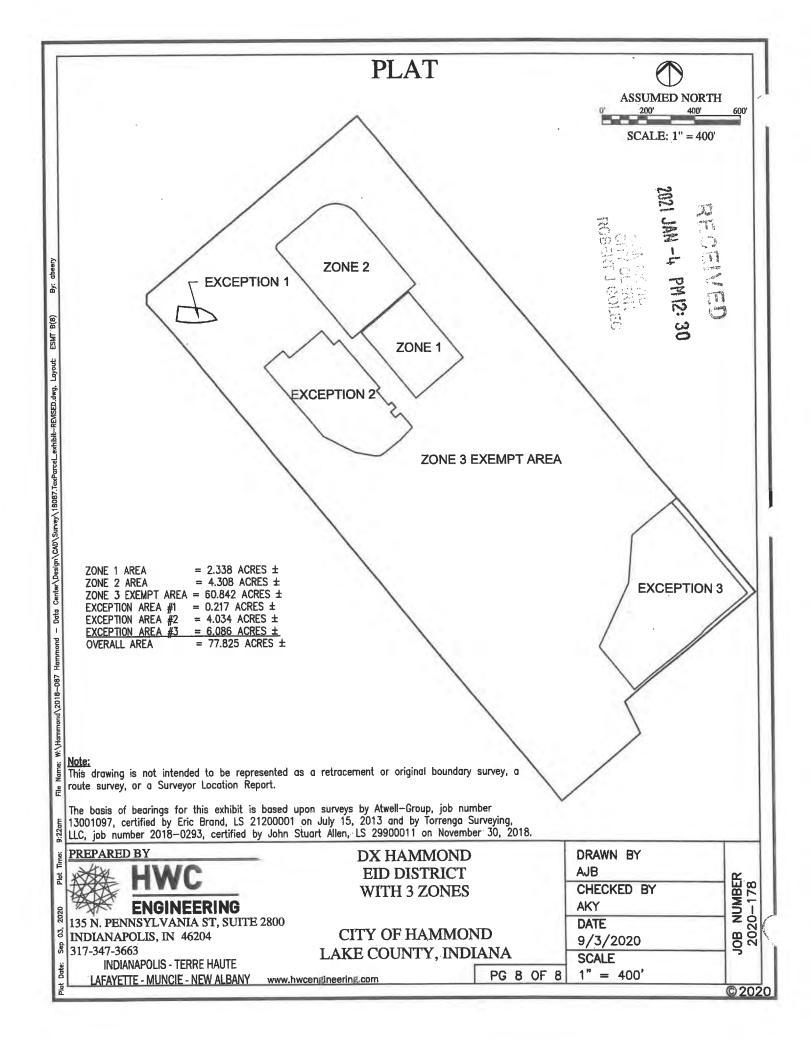


EXHIBIT B

ZONE 1

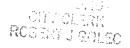
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EGAL DESCRIPTION

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LAND DESCRIPTION - ZONE 1

A part of Section 36, Township 38 North, Range 10 West of the 2nd Principal Meridian, Lake County, Indiana more particularly described as follows:

Commencing at the a brass plug on the State Line between Illinois and Indiana marking the original location of a monument placed by the United States Government in 1838; thence North 00 degrees 38 minutes 49 seconds East (bearings based upon surveys by Atwell-Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013 and by Torrenga Surveying, LLC, job number 2018-0293, certified by John Stuart Allen, LS 29900011 on November 30, 2018) along said state line a distance of 202.28 feet to a point on the northeast right—of—way line of the Elgin, Joliet, and Eastern Railway Company (formerly the Chicago Lake Shore and Eastern Railway Company); thence continuing along said state line North 00 degrees 38 minutes 49 seconds East a distance of 41.82 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 186.57 feet; thence South 39 degrees 44 minutes 40 seconds East a distance of 200.00 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 419.96 feet; thence South 39 degrees 49 minutes 11 seconds East a distance of 525.88 feet to the Point of Beginning; thence North 50 degrees 10 minutes 49 seconds East a distance of 273.00 feet; thence South 39 degrees 49 minutes 11 seconds East a distance of 373.00 feet; thence South 50 degrees 10 minutes 49 seconds West a distance of 273.00 feet; thence North 39 degrees 49 minutes 11 seconds West a distance of 373.00 feet to the Point of Beginning, containing 2.338 acres, more or less.

Date

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This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.

The basis of bearings for this exhibit is based upon surveys by Atwell-Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013 and by Torrenga Surveying, LLC, job number 2018-0293, certified by John Stuart Allen, LS 29900011 on November 30, 2018,

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DX HAMMOND **EID DISTRICT** ZONE 1 LAND DESCRIPTION

CITY OF HAMMOND LAKE COUNTY, INDIANA

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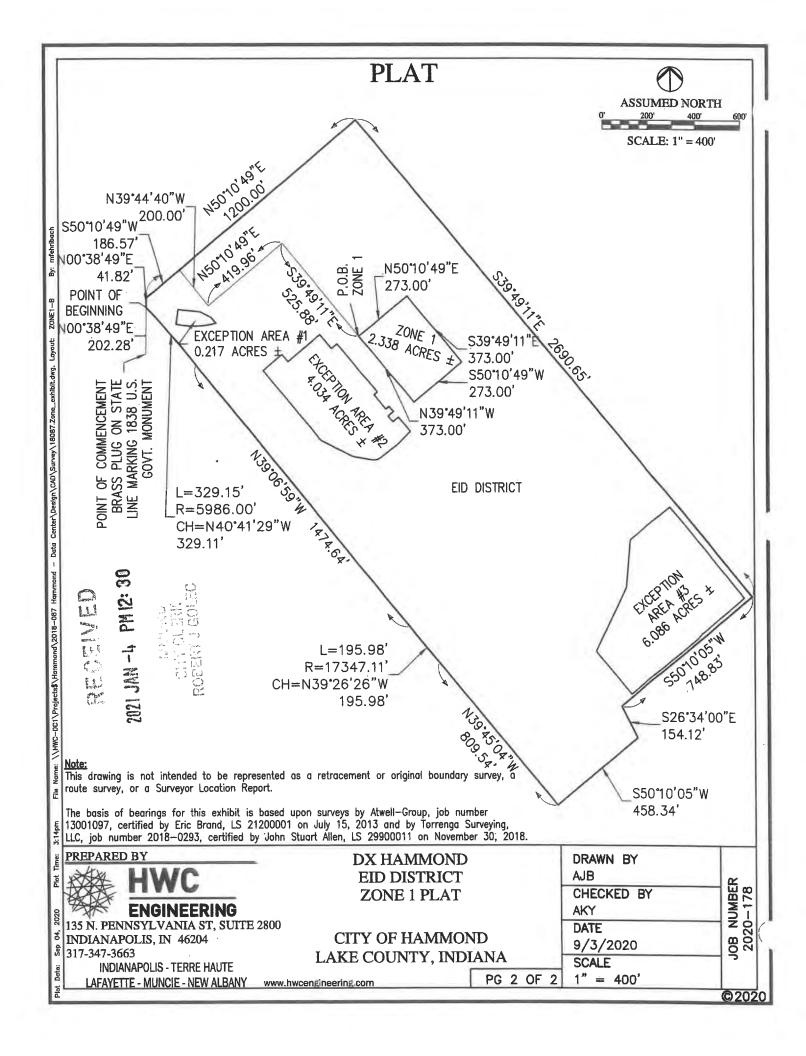


EXHIBIT C

ZONE 2

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RECLEGAL DESCRIPTION

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LAND DESCRIPTION - ZONE 2

A part of Section 36, Township 38 North, Range 10 West of the 2nd Principal Meridian, Lake County, Indiana more particularly described as follows:

Commencing at the a brass plug on the State Line between Illinois and Indiana marking the original location of a monument placed by the United States Government in 1838; thence North 00 degrees 38 minutes 49 seconds East (bearings based upon surveys by Atwell-Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013 and by Torrenga Surveying, LLC, job number 2018-0293, certified by John Stuart Allen, LS 29900011 on November 30, 2018.) along said state line a distance of 202.28 feet to a point on the northeast right-of-way line of the Elgin, Joliet, and Eastern Railway Company (formerly the Chicago Lake Shore and Eastern Railway Company); thence North 00 degrees 38 minutes 49 seconds East along said state line a distance of 41.82 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 186.57 feet; thence South 39 degrees 44 minutes 40 seconds East a distance of 200.00 feet; thence North 50 degrees 10 minutes 49 seconds East a distance of 392.37 feet to the POINT OF BEGINNING; thence continuing North 50 degrees 10 minutes 49 seconds East a distance of 226.32 feet to a point of curvature of a curve to the right having a radius of 120.00 feet, a chord bearing of South 84 degrees 49 minutes 11 seconds East a distance of 169.71 feet; thence easterly along said curve a distance of 188.50 feet; thence South 39 degrees 49 minutes 11 seconds East a distance of 401.02 feet; thence South 50 degrees 10 minutes 49 seconds West a distance of 366.23 feet; thence North 39 degrees 49 minutes 50 seconds West a distance of 501.02 feet to a point of curvature of a curve to the right having a radius of 20.00 feet. a chord bearing of North 05 degrees 10 minutes 29 seconds East a distance of 28.29 feet; thence northerly along said curve a distance of 31.42 feet to the POINT OF BEGINNING, containing 4.308 acres, more or less.

This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.

The basis of bearings for this exhibit is based upon surveys by Atwell—Group, job number 13001097, certified by Eric Brand, LS 21200001 on July 15, 2013 and by Torrenga Surveying, LLC, job number 2018—0293, certified by John Stuart Allen, LS 29900011 on November 30, 2018.

DX HAMMOND

EID DISTRICT

ZONE 2 LAND DESCRIPTION

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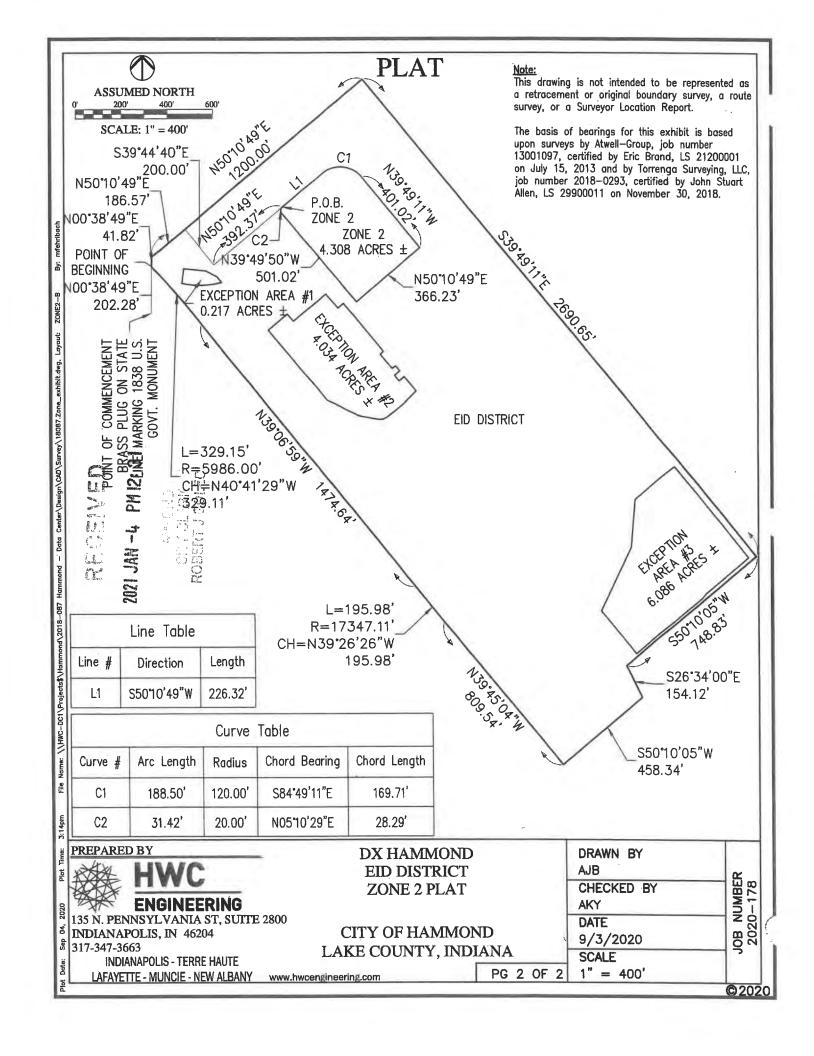


EXHIBIT D

ZONE 3

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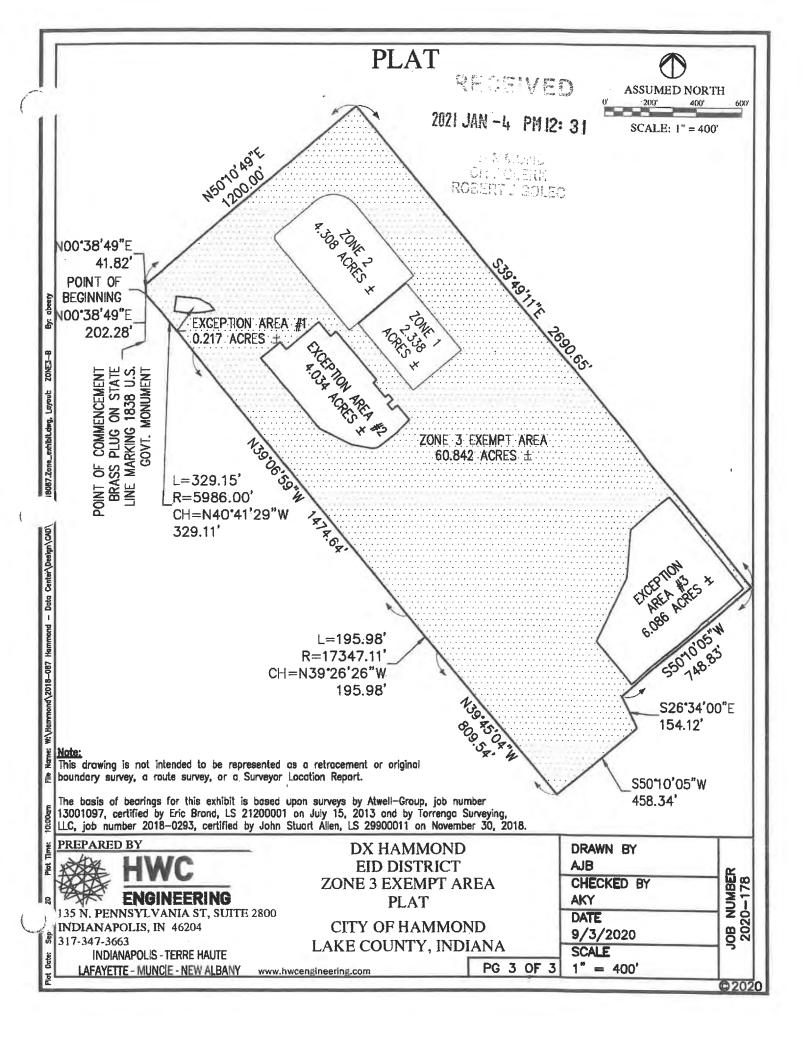


EXHIBIT E

HRC TIF RESOLUTION

WIJAN-4 PMZ: 31

Exhibit E - 1

RESOLUTION NO. __ 9-3

(RELATING TO STATE LINE ALLOCATION AREA)

A RESOLUTION OF THE HAMMOND REDEVELOPMENT COMMISSION PLEDGING CERTAIN TAX INCREMENT REVENUES TO THE PAYMENT OF CERTAIN ECONOMIC DEVELOPMENT REVENUE BONDS OF THE CITY OF HAMMOND, INDIANA

WHEREAS, the City of Hammond Redevelopment Commission (the "Commission"), governing body of the City of Hammond Redevelopment District, has previously created the State Line Allocation Area (the "Allocation Area") for purposes of the allocation and distribution of property taxes under IC 36-7-14-39; and

WHEREAS, the City of Hammond, Indiana (the "City") is considering the issuance of its City of Hammond, Indiana, Taxable Economic Development Revenue Bonds, Series 2019 (DX Hammond Data Center, LLC Project), in a maximum aggregate principal amount not exceeding \$8,040,000 (collectively, the "2019 Bonds"), the proceeds of which will be loaned to DX Hammond Data Center, LLC, or an affiliate thereof (the "Developer") to provide financing for a portion of the costs of a proposed economic development project to be undertaken by the Developer and that benefits and serves the Allocation Area (the "Development");

NOW, THEREFORE, BE IT RESOLVED by the City of Hammond Redevelopment Commission, as follows:

- 1. The Commission hereby pledges the Pledged TIF Revenues to the payment of principal and interest on the Bonds. For such purpose, the following definitions shall apply:
 - (a) "Pledged TIF Revenues" means 92.5% of the annual Tax Increment generated in the Allocation Area beginning with the first year of collection of Tax Increment in the Allocation Area, expected to be June 30, 2021 (partial assessment expected on January 1, 2020). Full assessment expected on January 1, 2022 for taxes due and payable in 2023. No general credit of the City (e.g., general property taxes, income taxes, moral obligations, etc.) will be pledged to the Bonds.
 - (b) "Tax Increment" means all real and depreciable personal property tax proceeds of designated taxpayers from assessed valuation of property located in the Allocation Area and limited to the Proof of Concept Build I Phase of the Development, in excess of the assessed valuation described in IC 36-7-14-39(b)(1), as such statutory provision exists on the date of the issuance of the Bonds.
 - (c) "Proof of Concept Build I Phase of the Project" shall have the meaning set forth in the Development Agreement dated November 1, 2018, among the City, the Commission, the City of Hammond Economic Development Commission and the Developer.
- 2. Any officer of the Commission is hereby authorized to execute on behalf of the Commission such further documents or agreements as such officer deems necessary or appropriate to effectuate the purposes of this Resolution.

3. This resolution shall be deemed to take effect immediately upon adoption by the Commission.

ADOPTED the 5th day of February, 2019.

HAMMOND REDEVELOPMENT COMMISSION

President

Vina Propident

Secretary

Member

Member

2021 JAN -4 PM

EXHIBIT F

HRC REDEVELOPMENT PLAN AMENDMENT

2021 JAN -4 PM R: 31

Exhibit F - 1

2021 JAN -4 PM 12: 31

BOW MORIE

RESOLUTION NO. 12-2018

RESOLUTION OF THE CITY OF HAMMOND REDEVELOPMENT COMMISSION AMENDING THE DECLARATORY RESOLUTION AND SUBSEQUENT AMENDED DECLARATORY RESOLUTIONS, MORE SPECIFICALLY RESOLUTION No. 07-2017 IN ORDER TO AMEND THE ALLOCATION PROVISION OF THE STATE LINE ALLOCATION AREA TO INCLUDE AND DESIGNATE THE DEPRECIABLE PERSONAL PROPERTY OF A DESIGNATED TAXPAYER FOR THE PURPOSE OF UTILITIZINGTAX INCREMENT FINANCING TO IMPLEMENT THE REDEVELOPMENT PLAN (AS AMENDED HEREIN) FOR THE MARINA REDEVELOPMENT AREA AS A REDEVELOPMENT PROJECT IN THE HAMMOND REDEVELOPMENT DISTRICT

WHEREAS, the City of Hammond Redevelopment Commission (the "Commission"), as the governing body for the City of Hammond Redevelopment Department, pursuant to Indiana Code 36-7-14, as amended (the "Act"), has heretofore adopted a declaratory resolution (as subsequently confirmed and amended, the "Declaratory Resolution") designating an area known as the Marina Redevelopment Area (the "Redevelopment Area") as an "area needing redevelopment" pursuant to the Act, designating a portion of the Redevelopment Area as an allocation area known as the State Line Allocation Area (the "Allocation Area"), creating the State Line Allocation Area Allocation Fund (the "Allocation Fund"), and approving an amendment to the North Hammond Redevelopment Plan (the "Plan") for the Marina Redevelopment Area; and

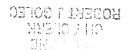
WHEREAS, pursuant to Sections 15-17.5 of the Act, the Commission desires to amend the Declaratory Resolution and the Plan to (a) designate Indiana NAP, LLC and/or DX Hammond OPCO, LLC (the "Company") and its successors or assigns, or any affiliates of the Company and their successors or assigns, as a "Designated Taxpayer" for purposes of IC 36-7-14-39.3; and (b) add to the Plan the additional projects set forth in Exhibit A hereto (collectively, the "Amendment"); and

WHEREAS, the Commission has caused to be prepared maps and plats showing the boundaries of the Redevelopment Area, the location of various parcels of property, streets, alleys, and other features affecting the replatting, replanning, rezoning, economic development or redevelopment of the Redevelopment Area, and the parts of the Redevelopment Area that are to be devoted to public ways, sewerage and other public purposes under the Amendment; and

WHEREAS, the proposed Amendment and supporting data were reviewed and considered at this meeting;

NOW, THEREFORE, BE IT RESOLVED by the City of Hammond Redevelopment Commission, as the governing body of the City of Hammond Redevelopment Department, as follows:

- 1. The Commission hereby finds that it will be of public utility and benefit to adopt the Amendment, and that the public health and welfare will be benefited by the Amendment. The Commission further finds and determines that the Amendment is reasonable and appropriate when considered in relation to the Plan and the purposes of the Act, and that the Plan, with the Amendment, conforms to the comprehensive plan for the City of Hammond. The Commission hereby reconfirms the findings and determinations set forth in the Declaratory Resolution with respect to the Redevelopment Area.
- The Commission hereby designates Indiana NAP, LLC (the "Company") and its successors or assigns, or any affiliates of the Company and their successors or assigns, as a "Designated Taxpayer" for purposes of IC 36-7-14-39.3 (the "Designated Taxpayer"). The Commission hereby modifies the definition of property taxes in IC 36-7-14-39(a) for the purposes of including taxes imposed under IC 6-1.1 on the depreciable personal property of the Designated Taxpayer and all other depreciable property located and taxable on the Designated Taxpayer's site of operation in the Allocation Area. The Commission finds that: (a) the taxes to be derived from the Designated Taxpayer's depreciable personal property in the Allocation Area and all other depreciable property located and taxable on the Designated Taxpayer's site of operation within the Allocation Area in excess of the taxes attributable to the base assessed value of that personal property, are needed to pay debt service on bonds issued under IC 36-7-14-25.1. or to make payments or to provide security on leases payable under IC 36-7-14-25.2, in order to provide local public improvements for the Allocation Area; (b) the property of the Designated Taxpayer in the Allocation Area will consist primarily of industrial, manufacturing. warehousing, research and development, processing, distribution or transportation-related projects; and (c) the property of the Designated Taxpayer in the Allocation Area will not consist primarily of retail, commercial or residential projects.
 - 3. The additional projects set forth in Exhibit A hereto are hereby added to the Plan.
- 4. The Amendment is hereby approved in all respects. The Plan, as amended by the Amendment, is hereby confirmed in all respects.
- 5. Any member of the Commission is hereby authorized to take such actions as are necessary to implement the purposes of this resolution, and any such action taken prior to the date hereof is hereby ratified and approved.
- 6. This Resolution, together with any supporting data, shall be submitted to the City of Hammond Plan Commission (the "Plan Commission") and the Common Council of the City of Hammond (the "Common Council") as provided in the Act, and if approved by the Plan Commission and the Common Council shall be submitted to a public hearing and remonstrance as provided by the Act, after public notice as required by the Act.



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CITY OF HAMMOND REDEVELOPMENT COMMISSION

President

Vice President

Secretary

Member

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EXHIBIT A

Additional Projects

I ax increment revenues from the Allocation Area for the purposes set — forth in the existing Plan, as previously amended, tax increment revenues from the Allocation — Area (as well as other funds of the Commission legally available for such purposes) may be used for the following purposes:

1. Tax increment revenues from the Allocation infrastructure.

- infrastructure improvements in or serving the Redevelopment Area, including without limitation, curbs, gutters, water lines, waste water lines, street paving and construction, storm sewer lines, and storm water basin improvement in, serving or benefiting the Redevelopment Area, as well as demolition costs. Although the precise nature of infrastructure that may be necessary from time to time to attract and retain prospective redevelopment and economic development opportunities in the Redevelopment Area cannot be predicted with certainty, the availability of adequate infrastructure is of fundamental importance in attracting and retaining such opportunities in the Redevelopment Area.
- 2. Tax increment revenues from the Allocation Area may also be used to offset payments by developers on promissory notes in connection with economic development revenue bond financings undertaken by the City, or to pay principal or interest on economic development revenue bonds issued by the City to provide incentives to developers, in furtherance of the economic development or redevelopment purposes of the Redevelopment Area. The provision of incentives by the application of tax increment revenues to offset developer promissory notes that secure economic development revenue bonds, or to pay principal or interest on economic development revenue bonds issued by the City to provide incentives to developers, in furtherance of the economic development or redevelopment purposes of the Redevelopment Area, has become an established financing tool and an increasingly common form of incentive for attracting economic development and redevelopment.
- 3. Tax increment revenues from the Allocation Area may also be used for the acquisition or construction of projects to enhance the cultural attractiveness of the entire City, including the Redevelopment Area.
- Tax increment revenues from the Allocation Area may also be used for the acquisition or construction of projects to enhance the public safety of the entire City, including the Redevelopment Area.
- 5. The cost of projects in the Redevelopment Area is currently estimated not to exceed \$13 million.

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CENDER & COMPANY ECONOMIC AND TAX IMPACT ANALYSIS

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Exhibit G - 1



CITY OF HAMMOND, INDIANA HAMMOND REDEVELOPMENT COMMISSION

Amendment for the Hammond Marina Redevelopment Area: State Line Allocation Area – Report on Economic and Tax Impact Analysis

January 22, 2019

Notice to Taxing Units Per Indiana Code 36-7-14-17(c)

2021 JAN -4, PM 12: 32

Prepared By:



Amendment for the Hammond Marina Redevelopment Area: State Line Allocation Area -Report on Economic and Tax Impact Analysis

L PURPOSE OF T

PURPOSE OF THE REPORT

Pursuant to Indiana Code ("I.C.") 36-7-14-17(c), if a resolution to be considered at a public hearing includes a provision establishing or amending an allocation provision under £36-7-14-39, a redevelopment commission shall file the following information with each taxing unit that is wholly or partly located within a proposed allocation area: (i) a copy of the notice required for adoption and substance of the resolution under consideration; and (ii) a statement disclosing the impact of the allocation area, including the following:

- The estimated economic benefits and costs incurred by the allocation area, as measured by increased employment and anticipated growth of real property assessed values; and
- The anticipated impact on tax revenues of each taxing unit.

A redevelopment commission shall file the information required above with the officers of the taxing units who are authorized to fix budgets, tax rates and tax levies under I.C. 6-1.1-17-5 at least ten (10) days before the date of a public hearing.

This Amendment for the Hammond Marina Redevelopment Area: State Line Allocation Area - Report on Economic and Tax Impact Analysis (the "Report") was prepared to meet the statutory requirements for the expansion of the State Line Allocation Area as it relates for the inclusion of personal property of DX Hammond OPCO, LLC, the designated taxpayer.

INTRODUCTION _____

The Redevelopment Plan (the "Plan") for the Hammond Redevelopment Area: State Line Allocation Area was originally prepared in response to economic development and land redevelopment opportunities made available to or considered by the City of Hammond (the "City") and the Redevelopment Commission (the "Commission") to implement its mission for the Hammond Marina Redevelopment Area (the "Area") to benefit the public health and welfare.

On October 16, 2018 the Commission adopted Resolution No. 12-2018 (the "Amending Declaratory Resolution") titled "RESOLUTION OF THE CITY OF HAMMOND REDEVELOPMENT COMMISSION APPROVING AN AMENDMENT TO THE DECLARATORY RESOLUTION AND REDEVELOPMENT PLAN FOR THE MARINA REDEVELOPMENT AREA." Said Amending Declaratory Resolution designated DX Hammond OpCo, LLC as a "designated taxpayer" (the "Designated Taxpayer"), with respect to the State Line Allocation Area and further amended the original allocation provision to include the personal property of the designated taxpayer in order to allow for the use of tax



increment resulting from the growth in depreciable property assessed value in excess of the base assessment or the "base assessed value" as defined in Section 39(a)(1) of the Act.

The Base Assessment Date for the individual components of the designated personal property in the Allocation Area is <u>January 1, 2018</u>, the assessment date immediately preceding the effective date of the allocation provision of the Amending Declaratory Resolution, as approved and adopted on October 16, 2018.

The Commission is filing this Report and a copy of the Notice of Public Hearing of adoption and substance of the Amending Declaratory Resolution under consideration with each taxing unit overlapping the Allocation Area. This Report discloses the economic benefits and costs as well as the anticipated impact on tax revenues of each taxing unit that is authorized to fix budgets, tax rates and tax levies under I.C. 6-1.1-17-5, pursuant to Section 17(c) of the Act.

The data and assumptions used in this Report were derived from or based upon records of the interested parties and other sources deemed and considered to be reliable. The financial advisor did not audit this data and, accordingly, expresses no assurance on it. It should be noted that assumptions may not be fully realized and that unanticipated circumstances and events, either natural or man-made, may occur and may cause the actual results to vary those anticipated results presented in this Report and that such variations may be material.

REPORT METHODOLOGY

The formation of an allocation area can affect each governmental unit, and even different funds within a governmental unit, in different manners due to the effect of the Indiana property tax control process. The Indiana property tax control process affects the majority of funds in a governmental unit by controlling the amount that can be levied in taxes. It affects a small number of other funds by controlling the tax rate applied. For funds controlled by the tax rate (i.e., cumulative funds), and which are at the maximum allowable rate, the establishment of an allocation area can have an impact on the unit's budget equal to the increase in assessed valuation (more specifically, the captured assessment [50 IAC 8-1-10]) on property times the controlled tax rate.

Our analysis shows that the following civil taxing units in the City (Tax Unit 023) have funds controlled by the tax rate (which may or may not be at the statutory maximum rate):

- The Lake County Cumulate Bridge and Cumulative Capital Development Fund;
- North Township Cumulative Park and Recreation Fund;
- City of Hammond's Cumulative Capital Development Fund; and
- Effective January 1, 2019 the Schools' Capital Project Fund will have a maximum tax levy, but not a maximum tax rate.

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Report on Economic and Tax Impact Analysis



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EXHIBIT B shows the City's state certified tax rate for 2017 Pay 2018. EXHIBIT C shows the net assessed valuations as of January 1, 2017 for taxes due and payable in 2018 of overlapping taxing units within the Allocation Area. These schedules were used and applied in the preparation of this Report.

As this Report applies to non-cumulative funds of an overlapping taxing unit, a governmental unit's growth in assessed value no longer determines the limits of a maximum levy growth (or the "Assessed Valuation Growth Quotient") per year based on the growth in assessed value. Beginning in 2003 governmental funds are controlled by the limits of maximum levy and are not allowed to exceed 6% per year based on the average growth in Indiana non-farm income for the past six years. Prior to 2003 the increased growth in assessed value determined the limits of the maximum levy growth per year between 5% and 10%. In addition, Senate Enrollment Act (SEA) 260 signed into law on March 24, 2006, amended I.C. 6-1:1-18.5-13 to reinstate banking of unused levy (eliminated in 2004 through SEA 1), although banking may only be done over two years, with 50% of the lost levy reinstated over each year.

Therefore, the designation of the personal property of the designed taxpayer by the Commission does not impact the levy of non-cumulative funds of overlapping taxing units as the certified tax rate will adjust accordingly to meet levy certified levy fund amounts.

The Commission, therefore, determines that there will not be a negative impact on the funds controlled by the tax rate of overlapping taxing units due to:

- A decrease in the non-cumulative funds will <u>not</u> occur as a result of the designation of the personal property of the designed taxpayer in the Allocation Area and the Commission's allocation of tax increment proceeds to an allocation fund for designated redevelopment and economic development projects and programs.
- The schedule set forth in <u>EXHIBIT D</u> illustrates the estimated tax rate and cumulative fund impacts on overlapping taxing units for Pay 2018 assuming the development was fully assessed for the January 1, 2017 assessment date and the Commission did not capture assessment resulting from the designation of the personal property of the designed taxpayer in the Allocation Area. <u>EXHIBIT D</u> is based upon an estimate of annual captured assessed value of real property within the Allocation Area.
- Increases in the personal property assessed value within the Allocation Area that is
 determined to be captured assessment as a result of private personal property
 investments will have occurred as a direct result of public intervention and the
 accomplishment of the goals and objectives to implement the Redevelopment
 Plan, for which said increases would not have occurred otherwise. The schedule
 set forth in <u>EXHIBIT E</u> illustrates the estimated tax rate and levy impacts on
 overlapping taxing units before and after designation of the personal property of
 the designed taxpayer in the Allocation Area and the capture of assessed

Report on Economic and Tax Impact Analysis

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valuation for the purposes of calculating tax increment for distribution to the Commission.

SUMMARY OF SIGNIFICANT ASSUMPTIONS _____

This Report was prepared on the basis of assumptions provided by the Commission and as included in the Redevelopment Plan and upon our research and analysis. The assumptions herein are those that are significant to this Report and designation of the personal property of the designed taxpayer in the Allocation Area (see <u>EXHIBIT A</u> for a boundary description and map of the Allocation Area).

Economic development activities and private investment in the Allocation Area will be related to the goals and objectives identified in the Plan and the current applicable zoning classification of the Area, also as identified in the Plan. Public investment in the Allocation Area and proposals for private redevelopment, rehabilitation and economic development shall be associated with permitted uses and special exception uses within the applicable zoning classification and zoning district as planned and classified for the Allocation Area. Public and private investment (including but not limited to real and personal property investments, etc.) will:

- Create an environment conducive to new private investment and business expansion within, adjacent to and within proximity of the Allocation Area consistent with the plan of development described in the Plan;
- Provide and promote significant opportunities for gainful employment of City and regional residents through business retention, expansion and attraction; and
- Be a public utility and benefit through improved and diversified economic base of the City and the designation of personal property of the designated taxpayer within the Allocation Area.

The following additional redevelopment, rehabilitation and economic development assumptions have been applied in the preparation of this Report:

- The certified 2017 Pay 2018 tax rates and the January 1, 2017 assessed values and tax levies as provided by the Indiana Department of Local Government Finance and the Office of the Lake County Auditor (as issued on February 9, 2018) were used in the analysis.
- Assessed value growth other than the estimated growth in the assessed value of
 the personal property of the designated taxpayer resulting from redevelopment
 and economic development in the Allocation Area is <u>not</u> assumed for the
 purposes of this analysis and the preparation of this Report.



 The effects or impacts of environmental, regulatory or other unforeseen circumstances which may have a material impact on the development and on the assessment of real and personal property have <u>not</u> been estimated.

Public/Private Partnerships

The Commission may utilize its limited Commission funds in a manner that will leverage significant new private investment in the Allocation Area. All public/private partnerships created must leverage private investment that is consistent with the specific goals and objectives stated in the Plan.

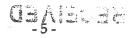
Funds the Commission utilizes for site improvements must lead to development activities financed by the private sector. Outside funding may include conventional equity investment, long-term debt financing or other "soft-money sources" such as private foundations, state grants or national programs designed to stimulate economic development or redevelopment activities in the Allocation Area.

The Commission reserves the right to consider and implement the use of TIF as an option for funding redevelopment and economic development activities in the Allocation Area, assuming an allocation area is established and designated in accordance with the Act.

Private investment is anticipated to occur based upon public investment in the Allocation Area, including but not limited to, the economic development assumptions identified herein.



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Amendment for the Hammond Marina Redevelopment Area: State Line Allocation Area -Report on Economic and Tax Impact Analysis



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It is the Commission's desire to encourage redevelopment and economic development in the Area and Allocation Area. The City and the Commission have concluded that the amendment will:

- The necessity for the proper use of the land to best serve the interests of the City, and its residents;
- Benefit the public health, safety, morals and welfare of the City and the 2018
 Plan;
- Increase the economic well-being of the City, northwest Indiana and the State of Indiana;
- Encourage and stimulate economic growth to retain, expand and attract private investment to the City;
- Improve the infrastructure available in the Area and the Allocation Area conducive to retention, expansion and attraction of private enterprise and private investment;
- Increase opportunities for new employment for residents in the City, northwest Indiana and the State of Indiana through business retention, expansion and attraction; and
- Over a long-term period of 10 to 25 years, increase the overall net assessed value in the City.

CONCLUSION ____

Based on the findings of this Report, the potential for an increase in personal property assessed value would not be present "but for" the amendment of the Plan for the Allocation Area for the purpose of capturing increases in net assessed value for allocation and distribution of certain tax increment pursuant to the allocation provisions adopted and approved in the Amending Declaratory Resolution consistent with Sections 15, 16 and 39 of the Act as an incentive and inducement for redevelopment and economic development in the Allocation Area.

Therefore, the Commission finds that there is no direct tax or levy impact on the taxing units overlapping the Allocation Area.

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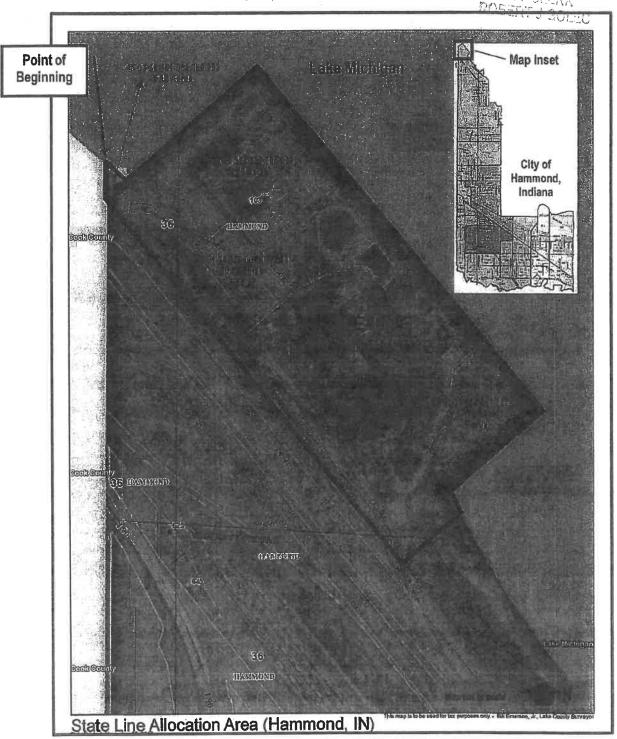
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Amendment for the Hammond Marina Redevelopment Area: State Line Allocation Area - Report on Economic and Tax Impact Analysis (5)

State Line Allocatin Area Map

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FIGURE 1: State Line Allocation Area Boundary Map



Hammond Redevelopment Commission

Redevelopment Plan for the Marina Redevelopment Area: State Line Allocation Area

Report on Economic and Tax Impact Analysis

State Certified Tax Rates 2018 Pay 2019 City of Hammond (Unit 023)

	Assessment Year: Collection Year:		2018 Pay 2019		anuary 1, 2018 et Assessment		Pay 2019 Levy
Lake C	ounty						
	General	\$	0.4918	\$	23,235,326,434	\$	114,271,335
	PSAP Operating		0.0447		20,703,278,287	-	9.254.365
	Reassessment		0.0111		23,235,326,434		2,579,121
	Debt Service		0.0529		23,235,326,434		12,291,488
(1)	Cumulative Bridge		0.0098		23,235,326,434		2,277,062
` '	Park Bond		0.0035		23,235,326,434		813,236
	Health		0.0061		19,371,165,424		1,181,641
	Drain Improvement		0.0073		23,235,326,434		1,696,179
	County School Distribution/Supplemental		0.0168		23,235,326,434		3,903,535
	Park and Recreation		0.0196		23,235,326,434		4,554,124
(2)	Exempt Park Revenue Bond Redemption		0.0077		23,235,326,434		1,789,120
(1)	Cumulative Capital Development		0.0327		23,235,326,434		7,597,952
1.7	Total County Rate	\$	0.7040		20,200,020,707		162,209,158
		-	0.1040			_	102,203,130
North 1	ownship	_					
	General	\$	0.0112	\$	7,396,782,180	\$	828,440
	Poor Relief		0.0545		7,396,782,180		4,031,246
	Recreation		0.0084		7,396,782,180		621,330
(1)	Cumulative Park and Recreation		0.0058		7,396,782,180		429,013
	Total Township Rate	\$	0.0799			\$	5,910,029
City of I	nammond						
0.11.01.	General	\$	1.5943	\$	2,284,058,224	\$	36,414,900
(2)	Exempt Debt Service	*	0.0146		2,284,068,224	•	333,474
1-1	MVH		0.0982		2,284,068,224		2,242,955
	Park and Recreation		0.0302		2,284,068,224		
	Park Bond		0.0924		2,284,068,224		5,294,470
(1)	Cumulative Capital Development		0.0324		2,284,068,224		2,110,479
(1)	Total Corporation Rate	\$	2.0423		2,204,000,224	-	251,248
		<u>*</u>	2,0423			3	46,647,526
	City of Hammond						
(3)	Referendum School - Post 09	\$	0.4400	\$	2,474,459,503	\$	10,887,622
(2)	Exempt Retirement/Severance Debt Service		0.0271	\$	2,284,068,224		618,982
	Debt Service		0.1927		2,284,068,224		4,401,399
(2)	Exempt Debt Service		0.5397		2,284,068,224		12,327,116
(3)	Ref Debt Post 09		0.0345		2,474,459,503		853,689
	Education		•		2,474,459,503		*
	Operations		0.5516		2,284,068,224		12,598,920
	Total School Rate	\$	1.7856			\$	41,687,728
Hammi	and Public Library						
7 102 107110	General	\$	0.1959	\$	2,284,068,224	S	4,474,490
(2)	Exempt Lease Rental Payment	•	0.0249	•	2,284,068,224	Ψ	568,733
(=)	Total Library Rate	\$	0.2208		2,207,000,227		
	•	•	0.2200			\$	5,043,223
Hammo	ond Sanitary						
	General	\$	0.0883	\$	3,859,508,075	\$	3,407,946
	Debt Service		0.1176		3,859,508,075		4,538,781
(2)	Exempt Debt Service		0.0712		3,859,508,075		2,747,970
	Total Senitary Rate	\$	0.2771			\$	10,694,697
Hammo	and Redevelopment						
1 IDITITIES	General		0.0241	\$	2,284,068,224	\$	EED 400
		\$		4	2,204,000,224	_	550,460
	Total Redevelopment Rate	\$	0.0241			\$	550,460
Lake C	ounty Solid Waste Management District						
	General	\$	0.0244	\$	23,235,326,434	\$	5,669,420
	Total Solid Waste Rate	3	0.0244	,	,	- \$	5,669,420
						_	SISSIFE
	Total Gross Tax Rate	\$	5.1582				

NOTES:

(1) Funds controlled by a State statute maximum tax rate or are cumulative funds.

Total of Exempt Rates from Circuit Breaker (2): \$

- (1a) Effective for 2019, the School Capital Projects, Transportation and Bus Replacement Funds becomes a part of the Operations Fund and the Operations Fund will have a maximum levy, but will not have a maximum tax rate as the Capital Projects Fund did previously.
- (2) Funds exempt from application of statutory circuit breaker to insure full funding of exempt funds. (3) School Referendum

0.6852

Source: Office of the Lake County Auditor. 2019 Budget Orders of the Department of Local Government Finance (January 9, 2019).

Redevelopment Plan for the Marina Redevelopment Area:

State Line Allocation Area Report on Economic and Tax Impact Analysis

Certified Applicable Total Net Assessed Valuations - Hammond, Indiana (2018 Pay 2019)

Taxing District		Certified Net Assessed Value (1)		
Lake County	\$	23,235,326,434		
North Township		7,396,782,180		
City of Hammond		2,284,068,224		
School City of Hammond		2,284,068,224		
Hammond Public Library		2,284,068,224		
Hammond Sanitary		3,859,508,075		
Hammond Redevelopment	-	2,284,068,224		
Lake County Solid Waste Management District		23,235,326,434		

NOTE:



⁽¹⁾ Certified Net Assessed Values as provided on Budget Orders approved by the Indiana Department of Local Government Finance on January 9, 2019.

Redevelopment Plan for the Marina Redevelopment Area: State Line Allocation Area

Tax Rate and Cumulative Fund Impact of the Allocation Area

Tax Rate and Cumulative Fund Impact of the State Line Alfocation Area

Estimated POTENTIAL Captured Assessment \$

30,366,060

Assessment Year: January 1, 2018			Certified		Potential	Percent		ement NOT C	
Collection Year: Fiscal Year 2019	Tax Rate		Net Assessed Valuation	Applicable Levy	Captured Assessment	Impact to NAV (1)	Tax Rate Impact	Estimated Pay 2019 Rate	Cumulative Fund Impact
Lake County General PSAP Operating Reassessment Debt Service (1) Cumulative Bridge Park Bond Health Drain Improvement County School Distribution/Supplemental Park and Recreation (2) Exempt Park Revenue Bond Redemption (1) Cumulative Capital Development Total County Rate		0.4918 \$ 0.0447 0.0111 0.00529 0.00529 0.0035 0.0061 0.0073 0.0168 0.00196 0.0077 0.0327	23,235,326,434 20,703,278,287 23,235,326,434 23,235,326,434 23,235,326,434 19,371,165,424 23,235,326,434 23,235,326,434 23,235,326,434 23,235,326,434 23,235,326,434 23,235,326,434	\$ 114,271,335 9,254,365 2,579,121 12,291,488 2,277,062 813,236 1,181,641 1,696,179 3,903,535 4,554,124 1,789,120 7,597,952	\$ 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060	0.1307% 0.1467% 0.1307% 0.1307% 0.0000% 0.1307% 0.1307% 0.1307% 0.1307% 0.1307%	\$ (0.000643) (0.000065) (0.000069) (0.000069) (0.000010) (0.000010) (0.000012) (0.000026) (0.000010) \$ (0.000273)	\$ 0.4912 0.0446 0.0111 1.0528 0.0098 0.0035 0.0061 0.0073 0.0168 0.0196 0.0077 0.0077	\$ 2,976
North Township General Poor Relief Recreation (1) Cumulative Park and Recreation Total Township Rate		0.0112 \$ 0.0545 0.0084 0.0058 0.0799	7,396,782,180 7,396,782,180 7,396,782,180 7,396,782,180	\$ 828,440 4,031,246 621,330 429,013 \$ 5,910,029	\$ 30,366,060 30,366,060 30,366,060	0.4105% 0.4105% 0.4105% 0.0000%	\$ (0.00046) (0.000224) (0.00034) - \$ (0.000304)	\$ 0.0112 0.0543 0.0084 0.0058 \$ 0.0796	\$ 1,76' \$ 1,76'
City of Hammond General (2) Exempt Debt Service MVH Park and Recreation Park Bond (1) Cumulative Capital Development Total Corporation Rate		1.5943 \$ 0.0146 0.0982 0.2318 0.0924 0.0110 2.0423	2,284,068,224 2,284,068,224 2,284,068,224 2,284,068,224 2,284,068,224 2,284,068,224	\$ 36,414,900 333,474 2,242,955 5,294,470 2,110,479 251,248 \$ 46,647,526	\$ 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060	1.3295% 1.3295% 1.3295% 1.3295% 1.3295% 0.0000%	\$ (0.021196) (0.000194) (0.001306) (0.003082) (0.001228) \$ (0.027006)	\$ 1.5731 0.0144 0.0969 0.2287 0.0912 0.0110 \$ 2.0153	\$ 3,340 \$ 3,340
School City of Hammond (3) Referendum School - Post 09 (2) Exempt Refirement//Severance Debt Service Debt Service (2) Exempt Debt Service (3) Ref Debt Post 09 Education Operations Total School Rate		0.4400 \$ 0.0271 0.1927 0.5397 0.0345 0.5516 1.7856	2,474,459,503 2,284,068,224 2,284,068,224 2,284,068,224 2,474,459,503 2,474,459,503 2,284,068,224	\$ 10,887,622 618,982 4,401,399 12,327,116 853,689 12,598,920 \$ 41,687,728	\$ 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060 30,366,060	1.2272% 1.3295% 1.3295% 1.3295% 1.2272% 1.2272% 1.3295%	\$ (0.005400) (0.000360) (0.002562) (0.007175) (0.000423) (0.007333) \$ (0.023254)	\$ 0.4346 0.0267 0.1901 0.5325 0.0341 0.5443 \$ 1.7623	\$
Hammond Public Library General (2) Exempt Lease Rental Payment Total Library Rata		0.1959 \$ 0.0249 0.2298	2,284,068,224 2,284,068,224	\$ 4,474,490 568,733 \$ 5,043,223	\$ 30,366,060 30,366,060	1.3295% 1.3295%	\$ (0.002604) (0.000331) \$ (0.002935)	\$ 0.1933 0.0246 \$ 0.2179	\$
Hammond Satitary General Debt Sarvice (2) Exempt Debt Service Total Sanitary Rate		0.0883 \$ 0.1176 0.0712 0.2771	3,859,508,075 3,859,508,075 3,859,508,075	\$ 3,407,946 4,538,781 2,747,970 \$ 10,694,697	\$ 30,366,060 30,366,060 30,366,060	0.7868% 0.7868% 0.7868%	\$ (0.000695) (0.000925) (0.000560) \$ (0.002180)	\$ 0.0876 0.1167 0.0706 \$ 0.2749	\$
<u>fammond Redevelopment</u> General Total Redevelopment Rate	\$	0.0241 \$ 0.0241	2,284,068,224	\$ 550,460 \$ 550,460	\$ 30,366,060	1.3295%	\$ (0.000320) \$ (0.000320)	\$ 0.0238 \$ 0.0238	\$.
<u>ake County Solid Waste Management District</u> General Total Solid Waste Rate Total Gross Tax Rate	\$	0.0244 \$ 0.0244 5.1582	23,235,326,434	\$ 5,669,420 \$ 5,669,420	\$ 30,366,060	0.1307%	\$ (0.000032) \$ (0.000032) \$ (0.0569)	\$ 0.0244 \$ 0.0244 \$ 5.1013	\$ 18,007

- (1a) Effective for 2019, the School Capital Projects, Transportation and Bus Replacement Funds become a part of the Operations Fund and the Operations Fund will have a maximum levy, but will not have a maximum tex rate as the Capital Projects Fund did previously.
- (2) Funds exempt from application of statutory circuit breaker to insure full funding of exempt funds (obligations issued prior to July 1, 2008) 105 125503 (3) School Referendum

 ource: Office of the Lake County Auditor. 2019 Budget Orders of the Department of Local Government Finance

0.6852

Source: Office of the Lake County Auditor. 2019 Budget Orders of the Department of Local Government Finance

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Total of Exempt Rates from Circuit Breaker (2): \$ Funds controlled by a State statute maximum tax rate or are cumulative funds.

Redevelopment Plan for the Marina Redevelopment Area: State Line Allocation Area Report on Economic and Tax Impact Analysis

Schedule of Tax Rates Applied: City of Hammond (Unit 023) 2018 Pay 2019: Cumulative Fund Tax Levy Impact

Hammond Central Redevelopment Area: State Line Allocation Area

Estimated Captured	Asses	sment (Ne	t As	sessment):	\$	30,366,060			
	As Certifi 2018 Pay					Estimated Captured		Cumulative Fund Levy Impact of	
	Tax Rate		Levy		Assessment		Captured NAV		
Lake County									
Cumulative Capital Development	- \$	0.0425	\$	9,875,014	\$	30,366,060	\$	12,906	
North Township									
Cumulative Park and Recreation	- \$	0.0058	\$	429,013	\$	30,366,060	\$	1,761	
90									
City of Hammond Cumulative Capital Development	- s	0.0110	\$	251,248	\$	30.366.060	\$	3.340	

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EXHIBIT H

HEDC TIF RESOLUTION

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Exhibit H - 1

RESOLUTION NO. 19-01

A RESOLUTION APPROVING AND AUTHORIZING CERTAIN ACTIONS AND PROCEEDINGS WITH RESPECT TO CERTAIN PROPOSED ECONOMIC DEVELOPMENT REVENUE BONDS

WHEREAS, the City of Hammond, Indiana (the "City"), is authorized by I.C. 36-7-11.9 and I.C. 36-7-12 (collectively, the "Act") to issue revenue bonds for the financing of economic development facilities, and loan the proceeds of the revenue bond issue to another entity to finance the acquisition, construction, renovation, installation and equipping of said facilities;

WHEREAS, DX Hammond Data Center, LLC (or an affiliate thereof) (the "Borrower") desires to finance the acquisition, construction and equipping of the project set forth in Exhibit A hereto (collectively, the "Project");

WHEREAS, the Borrower will own and have completed or will complete the Project for use in the operation of its data center and technology hub facilities to be located in the State Line Attocation Area in the City;

WHEREAS, the Borrower has advised the Hammond Economic Development Commission (the "Commission") and the City that it proposes that the City issue revenue bonds in an amount not to exceed Eight Million Forty Thousand Dollars (\$8,040,000) (the "Bonds") under the Act and loan the proceeds of such Bonds to the Borrower for the purpose of financing a portion of the costs of the Project;

WHEREAS, the Commission has studied the Project and the proposed financing of the Project and its effect on the health and general welfare of the City and its citizens:

WHEREAS, the completion of the Project results in the diversification of industry, the creation or retention of approximately forty (40) jobs and the creation of business opportunities in the City;

WHEREAS, pursuant to I.C. § 36-7-12-24, the Commission published notice of a public hearing (the "Public Hearing") on the proposed issuance of the Bonds to finance a portion of the costs of the Project; and

WHEREAS, on the date hereof the Commission held the public hearing on the Project and received uncontroverted evidence that there are no competing similar facilities in the area served by the Borrower.

NOW, THEREFORE, BE IT RESOLVED BY THE HAMMOND ECONOMIC DEVELOPMENT COMMISSION AS FOLLOWS:

SECTION 1. The Commission hereby finds, determines, ratifies and confirms that the diversification of industry, the creation of business opportunities and the creation of opportunities for gainful employment within the jurisdiction of the City is desirable, serves a public purpose, and is of benefit to the health and general welfare of the City; and that it is in the

public interest that the City take such action as it lawfully may to encourage the diversification of industry, the creation of business opportunities, and the creation of opportunities for gainful employment within the jurisdiction of the City.

SECTION 2. The Commission hereby makes a finding of fact, based upon the uncontroverted evidence presented at the Public Hearing, that there are no facilities which are similar to the Project in the area served by the Borrower and, based upon such finding of fact, hereby determines that the Project will not have, and has not had, an adverse competitive effect on any similar facilities already constructed or operating in or near the City.

SECTION 3. The Commission hereby approves the report with respect to the Project presented at this meeting. The Secretary of this Commission shall submit such report to the executive director or chairman of the plan commission of the City.

SECTION 4. The Commission finds, determines, ratifies and confirms that the issuance and sale of the Bonds in an amount not to exceed Eight Million Forty Thousand Dollars (\$8,040,000) and the loan of the proceeds of the Bonds to the Borrower for the financing of the Project will be of benefit to the health and general welfare of the City, will serve the public purposes referred to above in accordance with the Act, and fully comply with the Act.

SECTION 5. The financing of the Project through the issuance of the Bonds, in one or more series, in an amount not to exceed Eight Million Forty Thousand Dollars (\$8,040,000), is hereby approved and recommended to the Hammond Common Council.

SECTION 6. The Commission hereby approves and recommends to the Hammond Common Council the terms of the following documents in the form presented at this meeting: (i) a Loan Agreement (including the form of Promissory Note), between the City and the Borrower; (ii) a Trust Indenture between the City and a trustee to be selected by the City (including the form of the Bonds); and (iii) an Ordinance of the Hammond Common Council.

SECTION 7. Any officer of the Commission is hereby authorized and directed, in the name and on behalf of the Commission, to execute any and all other agreements, documents and instruments, perform any and all acts, approve any and all matters, and do any and all other things deemed by them, or any of them, to be necessary or desirable in order to carry out and comply with the intent, conditions and purposes of this resolution (including the preambles hereto and the documents mentioned herein), the Project and the issuance and sale of the Bonds, and any such execution, performance, approval or doing of other things heretofore effected be, and hereby is, ratified and approved.

SECTION 8. The Secretary of this Commission shall transmit this resolution, together with the forms of the documents approved by this resolution, to the Hammond Common Council.

SECTION 9. This resolution shall be in full force and effect upon adoption.

2

Adopted this 4th day of February, 2019.

HAMMOND ECONOMIC DEVELOPMENT COMMISSION

JOHN VEZMAR , Presider

Monica Rubio, Vice President

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Bonnie Henry

Bonnie Henry

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Exhibit A

The Project to be financed in part by the Bonds consists of the acquisition, construction, renovation and equipping of land and/or facilities for use by the Company in its data center and technology hub operations (the "Project") to be located within the State Line Allocation Area created by the Hammond Redevelopment Commission.

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EXHIBIT I

CITY AMENDED ORDINANCE

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Exhibit I - 1

PETITIONERS:

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Hammond Economic Commission Hammond Redevelopment Commission

SPONSOR(S):

Councilman Mark Kalwinski 1st District

A San Page OFFI CLERK ROBERT J GOLEO

AMENDED ORDINANCE NO. 9432

AMENDED ORDINANCE OF THE HAMMOND COMMON COUNCIL AUTHORIZING THE CITY OF HAMMOND, INDIANA, TO ISSUE ITS "TAXABLE ECONOMIC DEVELOPMENT REVENUE BONDS (DX HAMMOND DATA CENTER, LLC PROJECT)," AND APPROVING AND AUTHORIZING OTHER ACTIONS IN RESPECT THERETO

WHEREAS, the City of Hammond, Indiana (the "City"), the Hammond Redevelopment Commission ("HRC"), the Hammond Economic Development Commission (the "HEDC"), and DX Hammond Data Center, LLC ("Developer"), have entered into a Development Agreement (the "Development Agreement") relating to the redevelopment of certain real property in the City of Hammond, Indiana (the "City") (such real property referred to herein as the "Site"), such Site being more particularly described in the Development Agreement incorporated herein by reference, such redevelopment to consist of a data center and technology hub and related facilities, as more particularly described in the Development Agreement (the "Project"); and

WHEREAS, the Site is located within the Marina Redevelopment Area and State Line Allocation Area previously established by the HRC (collectively, the "Marina Redevelopment Area"); and

WHEREAS, as an inducement to the Developer to undertake the development of the Project, the City proposes, pursuant to the Development Agreement, to cause to be loaned to the Developer certain funds from the sale of bonds to be issued by the City for use in the development of the Project; and

WHEREAS, the HEDC has rendered its report regarding the proposed financing of a portion of certain economic development facilities for the Project to be undertaken by the Developer; and

WHEREAS, the HEDC has heretofore (i) conducted a public hearing in accordance with Indiana Code 36-7-12-24; and (ii) adopted a resolution subsequent to such public hearing, which resolution has been transmitted hereto, finding that the financing of a portion of certain economic development facilities to be developed by the Developer through the issuance of one or more series of City of Hammond, Indiana, Taxable Economic Development Revenue Bonds (DX Hammond Data Center, LLC Project) (the "Bonds") complies with the purposes and provisions of Indiana Code 36-7-11.9 and Indiana Code 36-7-12 (collectively, the "Act"), and that such financing will be of benefit to the health, prosperity, economic stability and general welfare of the City and its citizens; and

WHEREAS, the HEDC has heretofore approved and recommended the adoption of this form of ordinance by this Common Council (the "Council"), has considered the issue of adverse competitive effect and has approved the forms of and has transmitted for approval by the Council, the Loan Agreement, the form of Promissory Note, the Trust Indenture and the form of the Bonds (collectively hereinafter referred to as the "Financing Documents"); and

WHEREAS, The HRC has agreed to pledge a portion of certain property taxes on incremental increases in assessed value of certain real and depreciable personal property located on certain parcels where the Project is to be constructed within the State Line Allocation Area (the "Project TIF Revenues") to the repayment of the Bonds; and

WHEREAS, no member of this Council has any pecuniary interest in any employment, financing agreement or other contract made under the provisions of the Act and related to the Bonds authorized herein, which pecuniary interest has not been fully disclosed to the Council and no such member has voted on any such matter, all in accordance with the provisions of Indiana Code 36-7-12-16;

NOW, THEREFORE, BE IT ORDAINED by the Common Council of the City of Hammond, Lake County, Indiana as follows:

- 1. It is hereby found that the financing of a portion of the economic development facilities for the Project referred to in the Financing Documents previously approved by the HEDC and presented to the Council, the issuance and sale of the Bonds (which shall bear interest that is not excludable from gross income for federal tax purposes), the use of the proceeds of the Bonds by the Developer for the financing of a portion of the costs of the Project the payment of the Bonds from the Project TIF Revenues and other sources pursuant to the Loan Agreement, and the securing of the Bonds under the Trust Indenture comply with the purposes and provisions of the Act and will be of benefit to the health, prosperity, economic stability and general welfare of the City and its citizens.
- 2. At the public hearing held before the HEDC, the HEDC considered whether the Project would have an adverse competitive effect on any similar facilities located in or near the City. This Council hereby confirms the findings set forth in the HEDC's resolution, and concludes that the Project will be of benefit to the health, prosperity, economic stability and general welfare of the citizens of the City.
- 3. The substantially final forms of the Financing Documents shall be incorporated herein by reference and shall be inserted in the minutes of the Council and kept on file by the Clerk of the Council (the "Clerk") or the City Controller. In accordance with the provisions of Indiana Code 36-1-5-4, two (2) copies of the Financing Documents are on file in the office of the Clerk for public inspection.
- 4. The City shall issue the Bonds in one (1) or more series in a total maximum principal amount not to exceed Eight Million Forty Thousand Dollars (\$8,040,000), which Bonds shall mature no later than February 1, 2044, and shall bear interest at a per annum rate not exceeding four percent (4.0%) per annum. The Bonds are to be issued for the purpose of procuring funds to pay the costs of a portion of the acquisition, construction, installation

and equipping of the Project, as more particularly set out in the Financing Documents, incorporated herein by reference, which Bonds will be payable as to principal, premium, if any, and interest solely from the Project TIF Revenues and other sources pursuant to the Loan Agreement or as otherwise provided in the above-described Trust Indenture. The Bonds shall never constitute a general obligation of, an indebtedness of, or a charge against the general credit of the City.

5. The Mayor, the City Controller and the Clerk are, and each of them is, authorized and directed to execute, attest and affix or imprint by any means the seal of the City to the Financing Documents approved herein on behalf of the City and any other document which may be necessary or desirable prior to, on or after the date hereof to consummate or facilitate the transaction, including the Bonds authorized herein. The Mayor and the City Controller are, and each of them is, hereby expressly authorized to approve any modifications or additions to the Financing Documents which take place after the date of this Ordinance without further approval of this Council or the HEDC if such modifications or additions do not affect the terms set forth in this Ordinance and the Financing Documents pursuant to Indiana Code 36-7-12-27(a). The approval of said modifications or additions shall be conclusively evidenced by the execution and attestation thereof and the affixing of the seal thereto or the imprinting of the seal thereon. The signatures of the Mayor and the Clerk on the Bonds may be either manual or facsimile signatures. The Clerk is authorized to arrange for delivery of such Bonds to the Trustee named in the Trust Indenture, and payment for the Bonds will be made to the Trustee named in the Trust Indenture and after such payment, the Bonds will be delivered by the Trustee to the purchaser thereof. The Bonds shall be originally dated the date of issuance and delivery thereof.

The provisions of this Ordinance and the Financing Documents securing the Bonds shall constitute a contract binding between the City and the holders of the Bonds, and after the issuance of the Bonds, this Ordinance shall not be repealed or amended in any respect which would adversely affect the rights of such holders so long as the Bonds or the interest thereon remains unpaid.

- The Council does hereby acknowledge and approve the pledge of the Project TIF Revenues to the payment of the Bonds pursuant to the Trust Indenture. Pursuant to IC 5-1-14-4, the pledge of the Project TIF Revenues pursuant to the Trust Indenture is intended to be binding from the time the pledge is made, with such Project TIF Revenues so pledged and thereafter received by the City to be immediately subject to the lien of the pledge without any further act, and the lien of such pledge to be binding against all parties having claims of any kind, in tort, contract, or otherwise against the City, regardless of whether the parties have notice of any such lien.
- 8. The Council hereby finds that (a) the Project and the related financing assistance for the Project provided in the Development Agreement are consistent with the redevelopment plan for the Marina Redevelopment Area; (b) the Developer would not develop the Project on the Site, and the Site could not be developed pursuant to the redevelopment plan, without the financing assistance provided in the Development Agreement; (c) the Project furthers the economic development and redevelopment of the Marina Redevelopment

Area; and (d) the Project will be of benefit to the health, prosperity, economic stability and general welfare of the City and its citizens.

BE IT FURTHER ORDAINED that this Ordinance shall have full force and effect from and after its passage by the Common Council upon signing by the President thereof and approval by the Mayor.

Passed and adopted by the Common Council of the City of Hammond, Indiana, on the 11th day of February, 2019.

Robert A. Markovich

President of the Common Council

City of Hammond, Indiana

ATTEST:

Robert J. Golec, City Clerk City of Hammond, Indiana

Presented by me, the undersigned City Clerk of the City of Hammond, Indiana, to the Mayor of said City this 12th day of ______, 2019, for his consideration and action thereon.

Robert J. Go'ec, City Clerk City of Hammond, Indiana

Having examined the foregoing ordinance, I do now, as Mayor of the City of Hammond, Indiana,

Approxe said ordinance and return the same to the City Clerk this 12° day of

Thomas M. McDermott, Jr., Mayor

City of Hammond, Indiana

Robert J. Golde, City Clerk

City of Hammond, Indiana

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EXHIBIT J

DX HAMMOND ECONOMIC IMPROVEMENT PROJECTS DETAILED DESCRIPTIONS AND COST ESTIMATES

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Exhibit J - 1

EXHIBIT J-1

ZONE 1 ECONOMIC IMPROVEMENT PROJECTS & COST ESTIMATE BUILDING 1 OVERVIEW

The Building 1 "Proof of Concept" is a one-story, 105,000sf building with up to 18MW of usable power located in Zone 1. The original power plant footprint envisioned a 10MW substation at the site but this was expanded to a 20MW sub-station.

The Building 1 is being marketed as a multi-tenant mission critical colocation facility and includes flexibility in the configuration of the space, advanced security requirements, LED lighting, utility facilities interconnected to NIPSCO, sufficient water and sewage facilities improvements, and access to a public area.

The developer anticipates an "open date" of October 31, 2020 and the spend for the Building One will is estimated to be as follows:

Size		Building 1 105,000 sq				
Capacity Critical Total		12MW 18MW	g a si	. 4 4 5		
:	Phase I	Phase II	Phase III	Blg Total		
Site Prep	\$ 3,161,820.00 \$	- \$	- 1	\$ 3,161,820.00		
Core & Shell	\$ 18,700,000.00 \$	- \$	- ;	\$ 18,700,000.00		
Outfitting Building	\$ 12,574,761.00 \$	4,076,121.00 \$	4,076,121.00	\$ 20,727,003.00		
TI (equipment)	\$ 16,902,775.00 \$	8,152,242.00 \$	8,152,242.00	\$ 33,207,259.00		
Security	\$ 2,466,549.00 \$	· \$	=	\$		
Design & Engineering	\$ 3,100,000.00 \$	1,850,000.00 \$		\$ 4,950,000.00		
Fiber	\$ 5,443,998.00 \$	·-· \$	÷ ;	\$ 5,443,998.00		
Total CAP EX	\$ 62,349,903.00 \$	14,078,363.00 \$	12,228,363.00	\$ 88,656,629.00		

DX Hammond Economic Improvement Projects for Building 1	i	Total Cost
Planning and Managing Development and Improvement Activities	\$	8,931,802.00
Public Improvements		
Data Center Infrastructure	\$	76,837,432.00
Fiber Utility Facilities	\$	5,443,998.00
Electric Power Utility Facilities	\$	4,030,199.00
Water Cooling Facilities	į \$	915,000.00
Sewage Facilities	\$	550,000.00
Streets	\$	880,000.00
Total Public Improvements	\$	88,656,629.00
Commercial Activity	\$	88,656,629.00
Business Recruitment	\$	88,656,629.00
Business Development	\$	88,656,629.00
Parking Facilities OFFIGE A MAJORIA	\$	333,048.00

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EXHIBIT J-2

ZONE 2 ECONOMIC IMPROVEMENT PROJECTS & COST ESTIMATE BUILDING 2 OVERVIEW

It is envisioned that Building 2 in the EID District will be a two-story building of approximately the same footprint size as Building 1. Building 2 will be located in Zone 2 which will be directly adjacent to Building 1. The Building 1 and Building 2 will share a number of the services provided from the campus on the whole, including security, water, fiber access and other data center requirements. This building may require additional build-out of parts of the infrastructure of the campus.

At this time, it is anticipated Building 2will include 27MW of critical power and up to 40.5MW of usable power installed into the building and will be interconnected into the existing power grid serviced by NIPSCO. Alternative and renewable energy will also be a part of the Building 2.

The current plan is to market Building 2 as a multi-tenant mission critical colocation facility and will include flexibility in the configuration of the space. The anticipated spend for the Building 2 is as follows:

Building 2

	ල		Size Capacity	9	210,000 sq ft
Euro	63	K 2	Critical Total		40.5MW
	2021 JAN -4 PM 12:	ROBERT J SOLE	Site Prep Core & Shell Outfitting Building TI (equipment) Security Design & Engineering Fiber	\$ \$ \$ \$ \$ \$ \$	2,500,000.00 25,200,000.00 57,800,000.00 88,700,000.00 3,400,000.00 3,000,000.00
			Total CAP EX	\$	183,600,000.00

DX Hammond Economic Improvement Projects for Building 2	Total Cost		
Planning and Managing Development and Improvement Activities	\$	2,200,000.00	
Public Improvements			
Data Center Infrastructure	\$	176,450,000.00	
Fiber Utility Facilities	\$	3,000,000.00	
Electric Power Utility Facilities	\$	3,000,000.00	
Water Cooling Facilities	\$	750,000.00	
Sewage Facilities	\$	400,000.00	
Streets	\$	120	
Total Public Improvements	, \$	183,600,000.00	
Commercial Activity	\$	183,600,000.00	
Business Recruitment	\$	183,600,000.00	
Business Development	\$	183,600,000.00	
Parking Facilities	\$	250,000.00	

EXHIBIT K

GENERAL DATA CENTER INFORMATION

DATA CENTERS

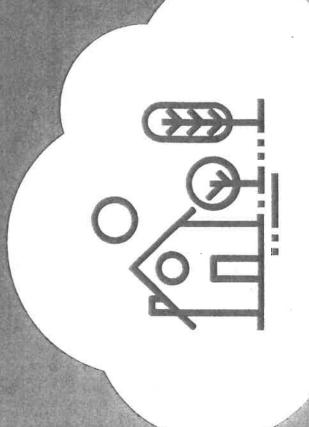
Jobs and Opportunities in Communities Nationwide

By: U.S., Chamber of Commerce Technology Engagement Center

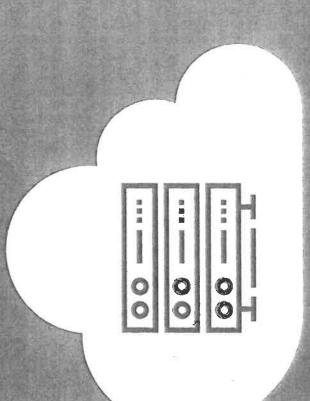
May 17, 2017

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Exhibit K - 1















REPORT HIGHLIGHTS

Technological innovations are rapidly changing our lives, our businesses, and our economy. Technology, no longer an isolated business sector, is a facilitator enabling innovation, growth, and the strengthening of America's traditional business sectors. From transportation and energy to finance and medicine, businesses rely on technology to interact with their customers, improve their services, and make their operations more globally competitive. Innovative technology is deeply integrated into the economy and is the driving force behind the creation of new jobs in science, health care, education, transportation, and more. Technology has fundamentally transformed our economy—and is poised to fuel even more growth in the future.

Overall, there were 6 million jobs in the U.S. technology industry last year, and we expect this to increase by 4.1% in 2017. Technology-related jobs run the gamut—from transportation logistics and warehousing to programmers and radiologists. In 2012, economists estimated that each high-tech job in the U.S. creates five additional jobs in other local goods and services sectors across all occupations—for example, construction workers, lawyers, dentists, schoolteachers, cooks, and retail clerks.

So what is the backbone that supports the rapid growth of this sector?

Data centers are facilities that house computers that store and process data, anchor our nation's economic growth, bolster job creation, and enable globally competitive innovations.

Burgeoning technologies like drones and sensors, both of which farmers use to monitor their crops and gather key information about their soil and how to increase their yields, are powered by data centers. Lifesaving gene therapies for diseases like cancer and hemophilia are powered by these centers.

Survivors and deliver lifesaving equipment can arrive at the scene faster than first-responders. Wearable technologies that we sport help us lead healthier lifestyles. Distance learning courses empower chitatien and adults to learn new skills or trades to keep up with the constantly evolving job market. Innovations in science, energy, manufacturing, health care, education, transportation and many other fields—and their jobs—are being powered by data centers.

But the benefits of data centers go beyond powering America's cutting-edge innovations. The economic impact, direct and indirect, is substantial.

While being built, a typical data center employs 1,688 local workers, provides \$77.7 million in wages for those workers, produces \$243.5 million in output along the local economy's supply chain, and generates \$9.9 million in revenue for state and local governments. Every year thereafter, that same data center supports 157 local jobs paying \$7.8 million in wages, injecting \$32.5 million into the local economy, and generating \$1.1 million in revenue to state and local governments. And the economic impacts don't stop here.

Opening data centers creates other real, tangible benefits for residents. Data centers directly and indirectly improve local public infrastructure—roads, power lines, water, and sewage systems. They increase the pool of skilled workers and often attract additional centers or partner businesses.

Data centers aren't passive bystanders—they contribute financial and other resources and collaborate with local organizations to support their communities.

With 6 million jobs and 2.5 million job openings, America's technology sector is driving economic growth, expanding global dominance in innovation and entrepreneurship, and putting

Americans to work. Without data centers, we can't power the innovations to keep our economy moving.

That's why the U.S. Chamber Technology Engagement Center (C_TEC) works with hundreds of technology and manufacturing companies on rational policy solutions to drive economic growth and spur innovation to create jobs. To capitalize on the environment for all Americans, our companies need accelerated investment and infrastructure deployment at all levels. Too many regulatory barriers threaten infrastructure improvements.

The tens of thousands of Americans working to build and operate data centers in our local communities are proof that with the right policies and investments, technology will continue to generate jobs and benefits for hardworking families.

Table 1. Initial Capital and Operating Expenditures of a Typical Data center

Net rentable square feet (NRSF)	165,141	
Capital expenditure per NRSF	\$1,305	_
Initial capital expenditures	\$215.5 M	
Land acquisition (6.2%)	\$13.4 M	
Construction building (20.9%)	\$45.0 M	
IT equipment (72.9%)	\$157.1 M	
Annual operating expenditures (8.6% of capital expenditures)	\$18.5 M	
Power (40.0%)	\$7.4 M	
Staffing (15.0%)	\$2.8 M	
Real estate taxes and insurance (5.5%)	\$1.0 M	
Maintenance, administration, and others (39.5%)	\$73 M	

Table 2. Economic Impacts of a Typical Large Data center to Local Communities

OPERATION PHASE ANNUALLY	157 Local Jobs	\$7.8 million wages	\$32.5 million local andeconomic activities	\$1.1 million state & local taxes
CONSTRUCTION PHASE 18-24 MONTHS	1,688 Local Jobs	\$77.7 million wages	\$243.5 million local economic activities	\$9.9 million state & local taxes

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LANDSCAPE OF THE DATA CENTER INDUSTRY

Nam D. Pham, Ph.D.² | May 1, 2017

control systems. Many large data centers also have their own power processing, data storage, and communications. Large data centers equipment on a raised floor with power backup and temperature equipment including servers and networking computers for data usually consist of shells stacked with racks of servers and IT Data centers are facilities containing information technology generators for heating and cooling equipment.

providers including Digital Realty Trust, DuPont Fabros, Vantage Data data centers are typically built, owned, and managed by data center services for their organizations, partners, and customers. Colocation Microsoft also leases data centers from many different data service Google, Microsoft, Yahoo, as well as government agencies, financial owned by large technology companies such as Amazon, Facebook tenants of Digital Realty Trust. In addition to their own data centers. and colocation. Enterprise, or corporate, data centers are built-and service providers at the same time. For example, IBM, CenturyLink, and Equinix have their own large data centers and also the largest service providers such as Coresite, CyrusOne, Digital Realty Trust, across all industries. Enterprise data centers support web-related operate their own data centers and lease space from data center institutions, insurance companies, retailers, and other companies DuPont Fabros, and QTS. These data center service providers do offer flexibility and scalability of IT needs, many large enterprises one or multiple tenants. Since third-party data center solutions Two broad categories of data center ownership are enterprise not use the services themselves but rather lease the space to Centers, and CyrusOne. According to the U.S. Department of Energy, there are 3 million data centers scattered across urban and rural areas in the U.S. More than 90% of the servers are, however, housed in data centers and owned or leased by small- and medium-size businesses. Less than 10%

of servers located in large data centers are owned by major cloud providers and national super computer centers.2

space is the area, measured in square foot (sf) or square meter (m2), IT equipment. Rack yield is the number of racks that can fit within a compute space. A rack is normally set to be 25 sf to allow aisle and within the data center facility containing server racks and related standards, measuring by compute space or rack yield. Compute The Data Center Institute classifies data centers into six size perimeter space around the server room (Table 3).

economy, data centers require uninterruptible power supply systems ncrease with the reliability level. Uptime Institute created a standard Tier Classification System that has four tiers to consistently evaluate users. Data center infrastructure costs and operational complexities to minimize the downtime for servers and security systems for their the infrastructure performance or uptime of data centers (Table 4). As data reliability and privacy become more vital in the digital

data centers are created to meet the demand of the rising amount of increasingly rely on the internet to provide their services and to store YouTube, Facebook, and Twitter, to name a few. Consequently, more streaming videos and music, and social networking through Google, data; noncommercial users access the internet for emailing, texting, nave been rising exponentially for decades. Commercial users The number of internet users and the number of applications data that is created and stored.

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CAPITAL AND OPERATING EXPENDITURES CENTERS

nvestments in time and money to build. Depending on the size and For example, Switch, which designs, constructs, and operates some of the most advanced data centers, has been continuously building added to the same site or campus of the first data center over time. of its Las Vegas 12 data centers, Switch Las Vegas Campus covers several hundreds of millions of dollars and can be over one billion the tier, initial capital investments for large data centers start from and expanding its core Las Vegas Campus. Upon the completion dollars. It is very common that new and larger data centers are -arge data centers are capital intensive and require significant nearly 2.4 million square feet with 315 MW capacity of power. A large up front investment for the initial construction phase includes components such as land prices and taxes vary substantially across land purchase, shell construction, and equipment installation. The annual operating costs to run data centers consist of power, staff, taxes, maintenance, and other administration costs. Many cost states and cities.

land acquisition, shell construction, and mechanical and electronic equipment purchasing and installation. The construction phase is expenditures during the initial phase of large data centers are **CONSTRUCTION PHASE:** Three main components of capital typically between 18 months and 24 months (Table 5).



Land acquisition: The cost of land includes the property purchase, consultant fees, and brokerage fees. Although expenditures, the cost of land varies substantially across the smallest component of a data center's capital

Microsoft range from 0.5% and 2.0% of the initial capital investment. U.S. cities. The CBRE research shows the cost variation from 0.1% of total costs over 10 years in Kansas City, Missouri to 9.9% in Southern states, counties, and cities. In 2015, CBRE estimated an average cost of land to be 2.5% of total construction and operating costs over 10 years of a typical 5 MW enterprise project across 30 California. Other estimates conducted by Uptime Institute and



Base building construction: The base building

design, building permits, local taxes, land excavation and construction costs include architectural planning and grading, roadways, tie-ins to utilities, and the building shell. Although less than land prices, construction

the cost of a base building shell is approximately 16% of initial capital local governments vary substantially by location. Forrester Research construction costs of a Tier III 5 MW enterprise project in expensive costs also vary across areas. For example, CBRE estimated that the Charlotte, Microsoft Corporation and Forrester Research estimated the cost of construction in less expensive areas such as Tulsa and with the redundancy level of Tier III and Tier IV facilities compared areas such as Boston and Silicon Valley could be 45% higher than investment and \$200 per sf.7 The construction costs also increase range between 7.0% (Microsoft) and 25% of the total construction costs (Forrester). The costs of building permits and taxes paid to with Tier I and Tier II facilities. Architectural planning and design estimated \$70 per sf in building permits and taxes paid to local governments.



of data center infrastructure include mechanical and Mechanical equipment includes computer room air-Mechanical and electrical equipment: The costs electronic equipment purchases and installation.

transfer switches, and generators. These costs exclude servers, data to the building shell. Mechanical and electrical costs range between conditioning units, refrigerant loops, condenser plants storage equipment, and networking devices that are not attached Institute). The American Society of Professional Estimators found that electrical equipment costs are approximately 25%, and labor or chillers, and water tanks. Electrical equipment includes power distribution units, transformers, patch panels, UPS systems, auto 82% and 85% of initial capital investment (Microsoft and Uptime installation costs account for 75% for data centers.**

Table 3. Data center Size Classifications³

		3	: 3	ZI	ld	7-	1302 NAU 1505	
	Size Metric	Mega				Small Small	Mini 18098 -	
				8				
	Rack Yield	000'6 <	3,001 - 9,000	801 - 3,000	201 - 800	11 - 200	1 - 10	
The state of the s	Compute Space (sf)	> 225,000	75,001 - 225,000	20,001 - 75,000	5,001 - 20,000	251 - 5,000	1 - 250	

Table 4. Data center Infrastructure Tiers⁴

Tier	Description	Uptime	Downtime Per Year
- Basic Capacity	Data centers provide dedicated site infrastructure to support IT beyond an office setting, including a dedicated space for IT systems, an uninterruptible power supply, dedicated cooling equipment that does not shut down at the end of normal office hours, and an engine generator to protect IT functions from extended power outages.	99.671%	28.8 Hours
II - Redundant Capacity Components	Data centers include redundant critical power and cooling components to provide select maintenance opportunities and an increased margin of safety against IT process disruptions that would result from site infrastructure equipment failures. The redundant components include power and cooling equipment.	99.749%	22 Hours
III - Concurrently Maintainable	Data centers have no shutdowns for equipment replacement and maintenance. A redundant delivery path for power and cooling is added to the redundant critical components of Tier II so that each component needed to support the IT processing environment can be shut down and maintained without impactingthe IT operation.	99.982%	1.6 Hours
IV - Fault Tolerance	Site infrastructure builds on Tier III, adding the concept of Fault Tolerance to the site infrastructure topology. Fault Tolerance means that when individual equipment failures or distribution path interruptions occur, the effects of the events are stopped short of the IT operations.	%96.995%	26.3 Minutes

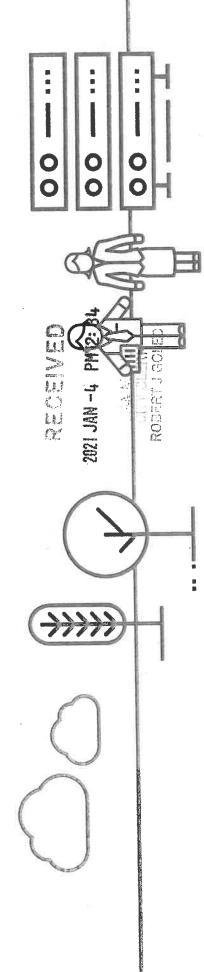
Table 5. Capital Expenditures During the Initial Construction Phase

Land Acquisition	Base Building Construction	Mechanical & Electrical Equipment
Costs include transaction, consultant fees, and brokerage fees.	Costs include architectural planning and design, building permits, local taxes, land excavation and orading roadways, tie-ins to utilities, and base	Costs include mechanical and electronic equipment and exclude servers, data storage equipment, and networking devices that are not
The cost of land acquisition is the smallest cost item but varies substantially across areas.	building shell.	attached to the building shell
Cost estimates are 2.5% of total project costs over	The cost of the building shell is less varied across regions.	Cost estimates are between 82% (Microsoft) and 85% (Uptime Institute) of initial capital investment:
10 years (CBKE), 2.0% of total cost of data centers (Microsoft), and 0.5% of initial CAPEX (Uptime Institute).	Cost estimates are around 16% of initial capital investment and \$200 per sf. Costs are rising with	the American Society of Professional Estimators estimated electrical equipment accounts for 25% and labor installation accounts for 75% for data
	higher tier of data centers	centers.

Table 6. Annual Operating Expenditures

Other	Other costs include administrative, maintenance, security, and landscaping.	Repairs, replacement, and upgrade of IT equipment and infrastructure	begin in year three of operation.
Taxes	Property taxes are estimated to be between 8.7% of total cost over 10 years and about 12% of annual	operating spending. State and local governments are	increasingly providing tax incentives to attract data centers.
Staffing	The second largest operating item, including 24x7x365 security, operations, and IT staff.	Staffing expenditures account for 15% of annual operating	OSTICE TYPERITHES. NOSTICE TWO THE STATE OF
Power	The largest operating item, ranging between 40% and 80% of total annual expenditures.		71.80 K

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OPERATION PHASE: Annual operating expenditures of a data center are grouped into four main categories: power, staffing, taxes, and other maintenance and administration (Table 6). Estimates of annual operating costs are between 6.0% and 10% of initial capital investment and data centers are typically depreciated over the course of 15 years.**



Power: The largest expenditure to operate a data center is power. Typically, half of the power consumption is for running IT equipment (computers and servers) and the other half is for cooling and power infrastructure at data centers.** Depending on the data center tier (level

of uptime), energy source (traditional versus renewable energy), and region, power expenditures can range from 40% (Uptime Institute) to 80% (Forrester Research) of the overall cost of operating a data center 13



Staffing: The second largest expenditure to operate a data center is staffing. Data centers employ security staff, operations staff, and on-site IT engineering and management staff. Most of the positions are 24x7x365 to maintain and operate data centers nonstop. Staffing

costs are about 15% of annual expenditures (Uptime Institute) and 4.9% of total costs, including construction, over 10 years (CBRE).** DCD Intelligence estimated the data center industry employed

108,500 people in the U.S. in 2015, accounting for 17.5% of global data center employment. It also estimated the proportion of people working on the IT/networks side of the data center industry have increased while those on the facility side have remained steady.**



Taxes: A large data center invests hundreds of millions of dollars in capital expenditures in the first couple of years for construction and then continues to spend millions of dollars each year for operations.

Data centers generate significant property, sales, and income tax revenues for state and local governments. Uptime Institute estimated that property taxes account for 12.2% of annual operating expenditures of data centers. Similarly, CBRE estimated net taxes of data centers in 30 cities account for 8.7% of the total project cost over 10 years.**



Other: Other operating expenditures include maintenance, insurance, security, landscaping, and administration. In addition to ongoing activities, data centers replace, repair, and upgrade to newer and more efficient IT equipment and infrastructure after about three years—and then on an ongoing basis into the future.

INITIAL CAPITAL AND ANNUAL OPERATING ITURES OF A TYPICAL LARGE DATA CENTER EXPENDITURES

We use financial data of the most recent development projects and 2016 annual income statements of data center service providers and enterprises to estimate the initial capital and annual operating expenditures of a typical data center. Financial data of data centers are obtained mainly from a company's annual reports filings with the U.S. Securities and Exchange Commission and other publicly available information. The initial capital expenditures include the cost to purchase the land, construct the building shell, and purchase and install mechanical and electrical equipment (IT infrastructure). The annual operating expenditures include power, staffing, taxes, maintenance, and other administrative costs of a data center.

Our data sample includes 244 large colocation and enterprise data centers of the 10 largest data center service providers and enterprises, covering over 40 million net rentable square feet, located across 16 states. The 10 enterprises and service providers in our sample, in alphabetical order, are Apple, CoreSite, CyrusOne, Digital Realty Trust, DuPont Fabros, Facebook, Google, Microsoft, QTS, and Yahoo.

Recent initial capital expenditures on data centers in our sample totaled \$8.2 billion and created more than 6.2 million net rentable square feet (NRSF), averaging \$1,305 per square foot. The breakdown of initial capital expenditures are 6.2% to acquire the land, 20.9% to build the base building (including planning and design, building permits, local taxes, land excavation and grading, roadways, tie-ins to utilities, and the building shell), and 72.9% to purchase and install mechanical and electrical equipment (including computer room air-conditioning units, refrigerant loop, condenser plant or chiller, and water tank, power distribution units, transformers, patch panels, UPS systems, auto transfer switches, and generators) (Table 7).

Table 7. Initial Capital Expenditure and Operating Expenditure of a Typical Data Center

Net rentable square feet (NRSF)	165,141
Capital Expenditure per NRSF	\$1,305
INITIAL CAPITAL EXPENDITURES	\$215.5 M
Land acquisition (6.2%)	\$13.4 M
Construction building (20.9%)	\$45.0 M
IT equipment (72.9%)	\$157.1 M
ANNUAL OPERATING EXPENDITURES (8.6% OF CAPEX)	\$18.5 M
Power (40.0%)	\$7.4 M
Staffing (15.0%)	\$2.8 M
Real estate taxes and insurance (5.5%)	\$1.0 M
Maintenance, administration, and others (39.5%)	\$7.3 M

Annual operating expenditures accounted for 8.6% of the initial capital expenditures of data centers in our sample. The largest component of annual operating expenditures is power, followed by staffing, taxes, and maintenance. Annual power spending and staffing expenditures are 40.0% and 15.0% of annual spending, respectively. Real estate taxes and insurance expenses are 5.5% and maintenance and all other administrative expenses are 39.5% (Table 7).

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Data Centers: Jobs and Opportunities in Communities Nationwide

ECONOMIC IMPACTS OF A TYPICAL DATA CENTER

around the clock, directly creating $24 \times 7 \times 365$ security, operations, centers purchase goods and services from local suppliers and pay directly to local communities that create ripple effects throughout local governments generate tax revenues from workers' personal Large data centers bring in millions of dollars in initial investment incomes, sales taxes from business activities, and property taxes and IT jobs. During the construction and operation phases, data infrastructure, including roads, water, sewer, network/fiber, and wages to their employees, contractors, and vendors. With their electrical infrastructure. After being built, data centers operate earnings, workers spend on housing, food, clothes, education, entertainment, and other daily goods and services. State and the surrounding areas. The initial investment directly creates construction jobs to build the data center itself and public from individuals and data centers.

changes in economic activity resulting from the changes in spending changes in economic activity arising from the first round of spending resulting from the initial demand (constructing and operating a data center). Indirect impacts are changes in economic activity resulting published by the Department of Commerce's Bureau of Economic the construction and operation of data centers. Direct impacts are by workers whose earnings are affected by the direct and indirect We apply regional economic multipliers (RIMS II) constructed and economic impacts include direct, indirect, and induced effects of supply chain affected by the initial demand. Induced impacts are from the subsequent rounds of spending by industries along the economic impacts of a data center on local communities. The Analysis (BEA) to calculate the direct, indirect, and induced

The economic impact calculations in this study include two phases construction, wages paid to construction workers and indirect and construction jobs and indirect and induced jobs supported by the the construction phase and the operation phase of data centers. The economic impacts of the construction phase include direct induced workers in the communities, and indirect and induced

induced jobs and economic activities within the state. Social impacts are real-life monetary and nonmonetary contributions of enterprises economic activities supported by the constitution. The esonomic impacts of the operation phase include direct, indirect, and included jobs supported by the operation of data centers, wages paid to all and local income tax and sales tax rates to estimate tax revenues collected by state and local governments on direct, indirect, and workers, and all economic activities. We then use average state to local communities.

month construction phase and \$77.7 million in wages. After excluding Overall, a \$215.5 million initial capital investment on building a typical generate nearly \$9.9 million in income taxes paid by direct, indirect, taxes paid directly by the data center, state and local governments large data center of 165,141 sf supports 1,688 jobs during the 18-24 all mechanical and electrical equipment assumed to be produced where the data center is located. In addition to property and sales creates \$243.5 million in economic activity for local communities outside the state, capital investment of the typical data center and induced workers and sales taxes by indirect and induced economic activities (Table 8).

addition to property and sales taxes paid directly by the data center, and along the supply chain. The data center each year added \$32.5 another 157 local jobs and \$7.8 million in wages at the data center During its yearly operation, a typical large data center supports local governments receive an additional \$1.1 million per year in million in additional economic activity to local communities. In individual income and sales taxes (Table 8).

7.8 MILLIC

in annual wages generated by a typical large data center

CONSTRUCTION PHASE: A typical data center, based on our sample of colocation and enterprise data centers, is 165,141 net rentable square feet (NRSF) and requires an initial capital investment of \$1,305 per sf, totaling \$215,5 million for the initial capital investment. The construction cost breakdowns of our data sample are: 6.2% for land acquisition, 20.9% for the building shell, and 72.9% for mechanical and electrical equipment purchases and installation.

multipliers varies across regions, depending on the structure of the

economy of each individual state. For each additional \$1 million

created within a state across all industries along the supply chain.

BEA also estimates that an additional \$1 million in construction

demand creates an additional \$0.6 million wages for all direct,

(Delaware) and 17 (Georgia) direct, indirect, and induced jobs are

spent on a construction project, BEA estimates that between 9

We calculate the construction cost of the shell to be \$45.0 million (20.9% of \$215.5 million) and the cost of purchasing and installing mechanical and electrical equipment to be \$157.1 million (72.9% of \$215.5 million). Since mechanical and electrical equipment is most likely purchased from out-of-state vendors and does not produce significant economic impacts within the state where the data center is located, we apply only half of mechanical and electrical equipment spending (i.e., \$78.5 million) to represent the installation costs that are spent on local workers. Also, we do not calculate the economic impacts of the land purchase on local economies. Thus, the construction phase of a typical data center creates a \$123.5 million construction demand (\$45 million for building the shell and \$78.5 million for the installation of mechanical and electrical equipment) that affects local economies.

generate \$77.7 million in wages and produce \$243.5 million in output

We calculate that \$123.5 million investment on construction within

construction jobs and indirect and induced jobs along the supply

chain within the state. These direct, indirect, and induced jobs

the state where the data center is located supports 1,688 direct

in construction demand creates \$2.0 million in direct, indirect, and

induced output within the state, ranging between \$1.6 million in

Wyoming and \$2.4 million in Texas.

indirect, and induced jobs within a state, ranging from \$0.5 million

in Delaware to \$0.8 million in Texas. Last, an additional \$1 million

within the state. Assuming an average of 5.0% for income state and

ocal tax rates, state and local governments generate \$3.9 million

income tax revenues from \$77.7 million in wages. Since many

states offer tax incentive programs, we exclude all direct economic

state and local governments. Assuming a 5.0% sales tax, state and

activities of the data center to calculate sales tax generated by

local governments generate another \$6 million from the indirect

and induced output within the state. Altogether, state and local

We apply the Bureau of Economic Analysis' (BEA's) regional economic multipliers to calculate the economic impacts of the construction on local economies. The magnitude of economic

governments generate \$9.9 million in income and sales taxes during

the 18–24 months of the construction period (Table 9)

Table 8. Economic Impacts of a Typical Large Data center to Local Communities

Operation Phase Annually	157 local jobs	\$7.8 million in wages	\$32.5 million in local economic activities	
Construction Phase 18-24 months	1,688 local jobs	\$77.7 million in wages	\$243.5 million in local economic activities	

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\$1.1 million in state and local taxes

\$9.9 million in state and local taxes

Table 9. Economic Impacts of a Typical Data Center | Construction Phase D

Pala Centeroutiouts	10N -4 PH 12: 34	Economic Multipliers	Impact
Direct construction jobs and indirect and induced jobs within the state		13.666	1,688
		0.629	\$77.7 M
		1.97	\$243.5 M
State and local taxes			M 0.68
Income taxes of direct, indirect, and induced jobs		2%	\$3.9 M
Sales taxes from indirect and induced outputs		5%	\$6.0 M

Table 10. Annual Economic Impacts of a Typical Data Center | Operation Phase

Desertation	Economic Mu	ltipliers	Total Impact
Direct, indirect and induced jobs within the state	Power	5.342	157
	Data center	10.659	
Wages of direct, indirect, and induced jobs	Power	0.311	\$7.8 M
	Data center	0.503	
Direct, indirect, and induced output	Power	1.574	\$32.5 M
	Data center	1.890	
State and Jocal taxes			\$1.1 M
Income taxes of direct indirect, and induced jobs	2%		\$0.4 M
Sales taxes from indirect and induced outputs	2%	100	\$0.7 M

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CONSTRUCTION PHASE DATA CENTER OUTPUTS





OPERATION PHASE: After being built, data centers have annual expenditures on power, staffing, taxes, maintenance, administive costs, and others. Using our data center sample, we estimate that annual operation expenditure accounts for 8.6% of initial capital expenditures. The annual operation expenditures breakdown are 40.0% on power, 15.0% on staffing, 5.5% on real estate tax and insurance, and 39.5% on maintenance, administration, and others.

We calculate annual operating expenditures of a typical large data center to be \$18.5 million (8.6% x \$215.5 million), of which \$7.4 million is spent on power, \$2.8 million on staffing, \$1.0 million on real estate tax and insurance, and \$7.3 million on other maintenance and administration. For the purpose of calculating the annual economic impacts of the data center during the operation phase, we calculate the economic impacts of \$7.4 million spending each year on power separately from the rest of the \$11.1 million spending on all other maintenance and administration on the data center to account for the increased demand of local utilities.

Similarly, we apply the BEA's regional economic multipliers of the utility industry to calculate the economic impacts of power consumption within a state. For each additional \$1 million of spending on power consumption, BEA estimates approximately 5 direct, indirect, and induced jobs are created within a state along the supply chain. BEA also estimates that an additional \$1 million in power demand creates \$0.3 million wages for all direct, indirect, and induced jobs. Last, an additional \$1 million in power demand

creates \$1.6 million in direct, indirect, and induced output within the state. We then apply the BEA's regional economic multipliers indata processing industry to calculate the economic impacts of the data center spending within a state. For each additional \$1 million of spending on data processing, BEA estimates that approximately to direct, indirect, and induced jobs are created within a state along the supply chain. BEA also estimates an additional \$1 million in data processing demand creates \$0.5 million in wages for all direct, indirect, and induced jobs. Finally, an additional \$1 million in data processing demand creates \$1.9 million in direct, indirect, and induced output within the state.

We calculate that \$18.5 million spending on annual operating expenses (\$7.4 million on power and \$11.1 million on operations) supports 157 direct, indirect, and induced local jobs. These direct, indirect, and induced local jobs. These direct, indirect, and induced jobs earn \$7.8 million in wages and produce \$32.5 million in output. Again, assuming an average of 5.0% for income state and local tax rates, state and local governments generate \$0.4 million income tax revenue per year from \$7.8 million wages. Since many states offer tax incentive programs, we exclude all direct spending of the data center in our calculations of sales tax generated by state and tocal governments. Assuming 5.0% sales tax, state and local governments generate another \$0.7 million per year from indirect and induced output within the state. Altogether, state and local governments generate \$1.1 million income and sales taxes per year during the life of the data center (Table 10).

SPILLOVER BENEFITS TO LOCAL COMMUNITIES

systems. Data centers also spend their own resources to train local communities. Building new data centers creates more demand for centers attract other data centers and businesses to communities. charitable contributions, partner with local educational institutions, workers. These assets remain in the community and benefit other Raleigh, Des Moines, and other places across the country. In 2017 expanding and upgrading local roads, power, water, and sewage expand data centers in Nevada. Furthermore, data centers make local businesses and residents. With these improvements, data alone, both Apple and Google have purchased land to build or and support local organizations to build stronger communities. geographically and follow others as seen in Colorado Springs. Like other industries, data centers tend to group together Data centers create positive long-lasting effects on local



CONTINUOUS ECONOMIC DEVELOPMENT: The

additional inflow investments and pipeline projects that in stages with ongoing investment in construction to increase capacity. As a result, local economies have development of large data centers tends to happen

industry. These projects have created thousands of construction jobs Apple and Facebook data centers in Prineville, Oregon, have brought Great Recession to 8%. The diversification of businesses helps lessen that helped Prineville to reduce unemployment from 20% during the investment on data centers in the area to \$1.8 billion. Similarly, the promote economic growth. For example, Google in 2016 acquired economy transition from its dependence on the wood products another 74 acres in Dalles, Oregon, to expand its first corporate data center that was built a decade earlier. The new expansion is estimated to be approximately \$600 million, bringing its total over \$1 billion in new investments, which helped the county's local economies' dependence on a particular sector.



ADDING POOL OF TALENTED AND SKILLED WORKERS TO ATTRACT ADDITIONAL BUSINESSES: The

availability of related skilled labor such as engineers and construction workers is crucial for high-end and largescale data centers. The pool of skilled workers in the

engineers and technicians, and computer system designers, creates advantages for local communities to attract other data centers and data center industry, such as building architects and engineers, IT other industries as seen in Ohio, Central Washington, and Virginia. Workers trained by Apple and Facebook in Prineville, Oregon, by Google in Dalles, and Dell, Intuit, Microsoft, and Yahoo in Čentral Washington are valuable assets for these regions.



IMPROVING AND UPGRADING INFRASTRUCTURE

areas where public infrastructure is limited. The building high demand for expansion and the upgrade of public Many data center developments are located in rural of data centers in underdeveloped areas creates a

roads, power, water, and sewer systems. In some cases, data centers directly collaborate with local companies to find innovative solutions. These public infrastructure improvements are long lasting and benefit all local businesses and residents.



communities in different ways, including cash donations, local sponsorships, community grants, STEM education, COMMUNITY IMPACT: Data centers contribute to local computer donations, and community assistance. In

example, Google each year works with local organizations to sponsor addition to monetary donations, corporate employees are active volunteers who provide assistance to communities. For community eventির such as Stordythe Citadel to promote STEM

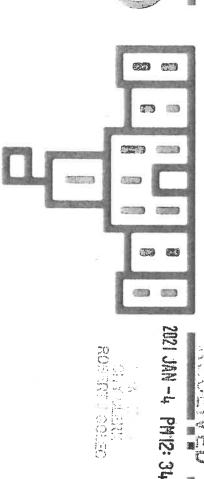
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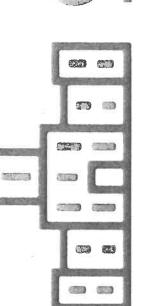
partnership with Isothermal Community College in North Carolina to more than \$2 million to schools and qualified nonprofits to support other seminars to help business owners set up and run successful Rutherford County Schools to provide free Wi-Fi access to 75-100 develop the curriculum for its Datacenter Institute,23 and launched and small business owners use the Internet more effectively, and STEM education and technological and economic development a pilot program with the Town of Forest City, North Carolina and education, Googlefest to help local teachers, nonprofit leaders, Carolina nonprofits and schools. 49 Similarly, Facebook awarded in communities in which operate data centers,20 entered into a websites. Google has awarded \$1.9 million in grants to South students' homes.22

power for data centers. Over the past decades, data data center operating expenditures. Companies are INNOVATION: Power is the largest component of constantly evaluating the source and the cost of

and renewable energy companies to develop and purchase power Apple employs an innovative cooling system that reuses water 35 and renewable energy development by working with local utility center owners have been actively involved in clean from local wind, solar, and micro-hydro resources. For example, limes, resulting in a 20% reduction in overall water consumption

companies to share specifications and best practices for creating the accessible to all companies and Yahoo recently announced the tariff Project was launched in 2011 with a mission to share the innovations in Los Lunas, New Mexico, and Papillion, Nebraska. These tariffs are nspired by the model of open source software, the Open Compute water consumption.23 The Apple campus in Maiden, North Carolina, purchase renewable energy, including the agreement to purchase of IT hardware designs. Since then, the Open Compute Project has 407 megawatts of wind-sourced power from MidAmerican Energy 100% of the anticipated energy consumption for new data centers Company to supply its data center in Council Bluffs, lowa. Google in its data center. The data center also uses a rainwater-supplied become a collaborative community of hundreds of IT and non-IT would enable its Nebraska facility to go 100% renewable, as well. renewable energy. Facebook has also begun working with local system for on-site landscape irrigation, further reducing overall is supported by renewable energy from two separate 100-acre sets its goal of powering all its operations with 100% renewable energy utilities to help create renewable energy tariffs to cover energy. In addition to powering its last seven data centers with solar arrays that each produce 42 million kilowatt-hours (kWh) of energy annually.24 Google contracted many agreements to most energy efficient and economical data centers.









OPPORTUNITIES FOR CITIES

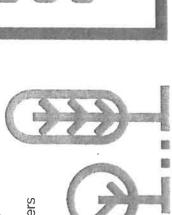
The demand for large data centers is growing because of the demands of increased internet usage and from the migration of smaller to larger data centers. Large businesses are increasingly moving to bigger data centers to achieve cost savings since large data centers experience economies of scale. In its 2016 Cisco Global Cloud Index, Cisco projects that global data center storage capacity will grow nearly 5 times and the number of hyperscale data centers will grow more than 87% from 2015 to 2020.25

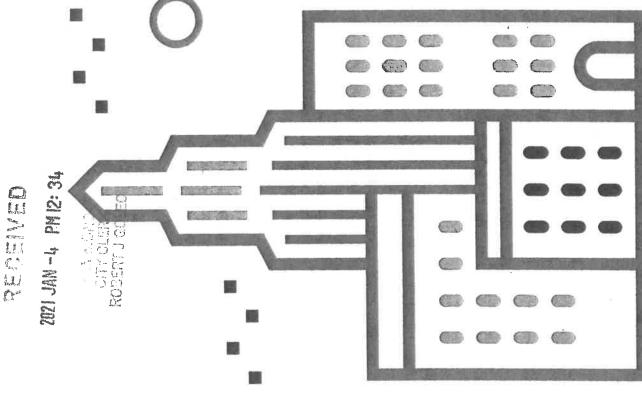
Enterprises and service providers are constantly searching for reliable, dependable, and cost effective solutions for data center site selection. Factors that affect data center decision makers include the capacity and availability of power, labor, geography, real estate, and costs. Since hundreds of millions of dollars are needed to build and to operate a data center per year, the cost element is crucial.

CONCLUSIONS

Recognizing the short and long-term benefits of data centers to communities, many state and local governments have devoted resources to attract these centers to their areas. Local policymakers have introduced business-friendly policy measures such as sales tax exemption for computing equipment and software, machinery equipment, and computers; infrastructure grants; and property tax abatements or exemptions.

These incentives drive companies to build data centers and invest in the surrounding areas, creating significant economic and social benefit to local communities.





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The Date Center Institute Board has endorsed the following terms and definitions.26

Standard Term	Definition
Average Measured Peak kW Load	Reported as kW or MW. The average of the measured Peak kW Loads relative to multiple racks and REU or multiple Compute Spaces.
Average Peak kW Load	Reported as kW or MW. New site design: The design target Peak kW Load a Compute Space is designed, or required to support in terms of power and cooling. Existing operational facility: Use the Average Measured Peak kW Load definition.
Compute Space	Reported in Area (sqft or sqm). The area within the data center facility containing racks, REU and associated IT and/or networking equipment. Located within a single facility that shares critical (power and cooling) infrastructure. A campus environment may have more than one Compute Space. Also known as computer area, computer room, data center room, data hall, raised floor area, technical area, and white space.
Data Center	Also spelt data centre and data center. One or more physical rooms or containers accommodating systems and infrastructure that support the operation of IT systems located in one or more IT racks or Rack Equivalent Units.
Design kW/Load	Reported as kW or MW. Applies to the maximum kW load the Compute Space is designed to support in terms of power and cooling.
Enterprise Data Centers	Data centers house critical operations of individual companies.
Load	Reported as kW or MW. The actual measured Peak kW Load as reported by an acceptable measurement device or system relative to the REU or Compute Space. The measurement period must exceed 1 calendar month. Partial results and decimal points are to be rounded up to the nearest whole number.
Peak kW Load	Reported as KW or MW. New site design: The design target Peak KW load a Compute Space is designed, or required to support in terms of power and cooling. Existing operational facility: Use the Measured Peak KW Load definition.
Rack Area	Reported in sqft (ft2) or sqm (m2). Sets a common understanding for rack footprint, allowing for aisle space and perimeter and other space within the room area.
Rack Equivalent Unit (REU)	Converts a heterogeneous environment into a standard unit of measure. Also converts non-traditional rack equipment, including free-standing items into an equivalent Rack as used in Rack Area and Rack Yield. A large piece of equipment may use multiple REUs. 1 x REU in spatial terms equals 1 x IRack Areal
Rack Yield	ুই টি Reported asquantity of Racks or REUs. Number of Racks (by Rack Area) that can fit within a Compute Space. Rack
Retail Colocation †8:2	Building shell and infrastructure in shared environment, space generally divided by racks or cages. May include IT happying as well as menu of services.
Wholesale Colocation	Building shell and infrastructure to the power distribution unit providing space, power and cooling. Generally in dennised suites above 250 kW.

ENDNOTES

- This study was conducted by Nam Pham. Managing Partner and Mary Donovan, Principal at ndp | analytics. Gabriela Irizarry, Nate Muramatsu, and Autumn Trowbridge provided research assistance.
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ABOUT US

C_TEC (U.S. Chamber Technology Engagement Center) promotes the role of technology in our economy and advocates for rational policy solutions that drive economic growth, spur innovation, and create jobs.



TIM DAY

Senior Vice President, C_TEC

Tim Day highlights the role of technology in our economy and advocates for emerging technology. He is responsible for championing rational policy solutions that spur innovation and create jobs. He joined the Chamber from Teradata Corporation. Before Teradata, Day served as vice president of government affairs at NCR Corporation, was chief of staff to Congresswoman Deborah Pryce (R-OH), legislative director to Congressman David Hobson (R-OH), and legislative assistant to Congressman Joe Barton (R-TX). Day earned a B.A. from Cedarville University in Ohio in 1987. He serves on the board of advisors for the Data Coalition, a Washington, D.C.-based coalition that advocates on behalf of the private sector and the public interest for publishing government information as standardized and machine-readable. In 1998, Day was accepted as a delegate to the American Council of Young Political Leaders.

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NAM D. PHAM, PH.D. Managing Partner, ndp | analytics Nam D Pham is an experienced economist who develops results-driven analysis to tackte his firm's clients' most challenging policy and legal issues. Prior to founding ndp | analytics in 2000, Dr. Pham spent nearly 15 years in various economic research positions including as a Vice President at Scudder Kemper Investments. Chief Economist of the Asia Region at Standard & Poor's DRI, an economist at the World Bank, and an economic consultant to both the Department of Commerce and the Federal Trade Commission. His work on innovation and international trade has been included in the Economic Report of the President and he has been ricled in various media outlets. Dr Pham is also an adjunct professor at George Washington University, He holds a Ph.D. in economics from the George Washington University, an M.A. in economics from Georgetown University, and a B.A. from the University of Maryland.

EXHIBIT L

DATA CENTER BUSINESS RECRUITMENT

The entire Data Center will support business recruitment within the EID District as contemplated under IC 6-7-22-3(4). The Data Center provides for the establishment of a colocation facility in Hammond, Indiana. The Data Center will bring significant, new fiber assets to the EID District and provide the EID District City access to new state of the art telecommunication services. These services are critical for a community to provide access to competitively priced broadband.

The initial data center that locates in a community often serves as a "carrier hotel", a place where national and international carriers can provide a point of presence to serve both data center and community customers. The fiber providers and those that deliver telecommunication services to consumers are CLECs and ILECs and governed by the Indiana Utility Regulatory Commission ("IURC"). See the copy of the article attached as <u>Exhibit L-1</u>.¹

As a colocation facility, the Data Center constantly seeks to recruit enterprise customers and telecommunication carriers to the EID District. Data centers typically locate in clusters once the initial data center has been established. Enterprise customers are risk adverse and desire to see the first facility constructed and operational to prove that the location has the power and infrastructure capable to reliability serve a data center. This means: (a) that data centers and its carrier hotels are both EID District assets and local community assets that provide significant public benefits to the City; and (b) that the data centers support the attraction of new businesses and investment to the EID District.

Data centers also have a significant positive impact on the EID District. They tend to require enhancements to infrastructure such as roads, water, sewer, and to power. This infrastructure development tends to support higher employment uses and, in some cases, accelerates employment growth that otherwise would not occur in the foreseeable future within the EID District.² See the copy of the article attached as **Exhibit L-2**.

In March 2018, the research firm RTI International published a report confirming a frequently quoted statistic about the multiplier effect of data centers: "for every 1 data center worker, there were 5 jobs supported elsewhere in the economy by operating expenditures—after the surge of jobs caused by the capital expenditures." See the copy of the article attached as **Exhibit L-3**.

According to a recent U.S. Chamber of Commerce's Chamber Technology Engagement Center (C_TEC) report, the average data center has the possibility of adding \$32.5 million to the local economy every year. Additionally, data center construction has the opportunity to create an extended economic impact. The same C_TEC report found that during construction a data center will spend an average of \$77.7 million on 1,688 local workers. This figure coupled with the average \$9.9 million in revenue paid to local governments and the state on yearly basis, can

¹ Go to: https://siteselection.com/issues/2011/sep/sas-optical-infrastructure.cfm

² Go to: https://www.areadevelopment.com/data-centers/Data-Centers-Q1-2015/impact-of-data-center-development-locally-2262766.shtml

³ https://imasons.org/imasons-blog/data-centers-impact-on-local-economies/

provide the funds needed to support public services and thus further bolster the local economy.⁴ See the copy of the article attached as <u>Exhibit L-4</u>.

In an increasingly interconnected work, the Data Center will play a key role in bringing business, their partners and their customers together, and it is importance is growing exponentially.⁵ See the copy of the article attached as <u>Exhibit L-5</u>.

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⁴ Go to: https://www.raritan.com/blog/detail/measuring-the-economic-impact-of-one-data-center

⁵ Go to: https://www.gartner.com/imagesrv/media-products/pdf/global-switch/global-switch1-3QSK5N9.pdf

EXHIBIT L-1

THE IMPORTANCE OF BROADBAND TO ECONOMIC DEVELOPMENT

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Exhibit L-1 - 1

SPECIAL ADVERTISING SECTION WORLD-CLASS OPTICAL INFRASTRUCTURE

From Site Selection magazine, <u>September 2011</u> SHARE THIS ON SOCIAL MEDIA

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The Importance of Broadband To Economic Development

Corporate site selectors consider it a critical piece of infrastructure.

by MATT McQUADE Director of Domestic Business Development, Columbus 2020

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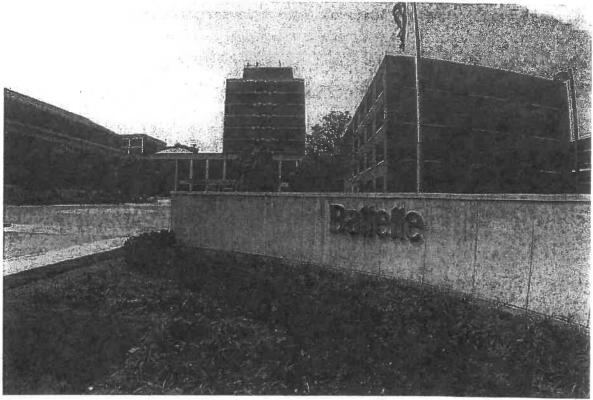


The Arena District, a nationally recognized urban redevelopment project anchored by Nationwide Arena (home of the NHL's Columbus Blue Jackets), has grown into one of the Columbus Region's largest office markets. Already home to companies like Nationwide Insurance and American Electric Power, the Arena District soon will welcome a new headquarters building from Columbia Gas of Ohio.

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Battelle Memorial Institute's world headquarters in Columbus, Ohio

tility service has always been among the most heavily scrutinized factors in the site selection process. Locations are routinely eliminated due to issues pertaining to inadequate — or lack of — electric, gas, water, wastewater, or telecommunications infrastructure. Advances in technology have elevated the importance of the Internet in economic development and site selection. The availability, quality, and competitiveness of broadband service have become and value continue to be a key issue for many locations. Moreover, the United States has a "Froadband problem" that is impacting the country's competitiveness for new investment.

Broadband service connects businesses and individuals to the global marketplace. It has that tened the world by allowing businesses to communicate and collaborate in ways never before possible due to the increase in the amount of information that can be transferred at faster speeds and new software technology made possible by its bandwidth. While many dial-up plans charge for minutes used, broadband is always on and can be less expensive due to unlimited usage and, in certain locations, competitive market. The difference in speed saves companies money when considering the increased productivity.

People want to live where there is broadband service. It improves the manner in which health care and many public services are delivered. Moreover, it has become an essential quality-of-life amenity for many as it opens new doors to entertainment and communication options like downloading or streaming movies and television shows directly to a computer or TV, accessing

music through applications like iTunes, and video conferencing through applications like Skype or Facetime. Broadband allows for a more flexible lifestyle by providing greater access to education through distance learning programs or remote employment.

Broadband and the Site Selection Decision

Corporate site selectors expect broadband. It is not a perk or special benefit. For communities, it is a critical piece of infrastructure for attracting new capital investment. Specifically, a company is likely to require a direct fiber connection and redundancy. As with electric service, the reliability of the service is heavily scrutinized to ensure the operation will not be placed offline (especially for information-intensive projects like data centers) or that the risk of being offline is minimal. The competitiveness of the service is also important. Locations with numerous providers have an advantage because competitiveness will drive up speeds and drive down cost.

Locations with inadequate connectivity are quickly passed over for projects requiring broadband. Communities lacking broadband infrastructure make the process of elimination easier for investment decision-makers and influencers. That said, merely having broadband likely places a location on a level playing field with other communities. It will be the only reason a company selects a certain location.

Ii Broadband

Numerous case studies and empirical analyses demonstrate how locations were able to develop a competitive advantage by installing broadband before other communities. In her 2006 econometric study of U.S. communities, Sharon Gillett found that broadband added about 14.4 percent to the employment growth rate and 0.5-1.2 percent to the business establishment growth rate between 1998-2002. Speedmatters.org says that for each \$5 billion in new broadband investment, 250,000 jobs are created. Moreover, with every percentage point increase in new broadband penetration, employment expands 300,000. Estimates by Accenture in 2003 suggest that broadband could contribute \$500 billion to U.S. GDP.

Some communities don't stop at merely having broadband service. Many use publicly owned networks to their advantage by providing service to the private sector. In 2001, Lake County, Fla., began offering private businesses access to its municipally owned broadband networks. In 2005, George Ford and Thomas Koutsky analyzed the impact and found that Lake County experienced a doubling in economic activity relative to comparable Florida counties.

Case Study

In the Columbus Region, the City of Dublin owns and operates the DubLINK broadband system, which consists of 125 miles of conduit and optical fiber and 24 square miles of WIFI covering both business and residential areas. It is therefore no surprise that the City of Dublin

has been named a Smart21 community for four consecutive years, achieving Top Seven status in 2010 and 2011, by the Intelligent Community Forum, which is dedicated to economic growth in the broadband economy.

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The Broadband Problem

The term "digital divide" speaks to the disparity between geographic areas with regard to their opportunities to access information and communications technologies. The gap will continue to grow as long as locations with low or no broadband connectivity do not invest in broadband development. Businesses that rely on broadband will have no choice but to invest in locations with it. Demographic changes will occur as people choose to live elsewhere. Educational and health care systems in non-broadband locations will lag behind those with broadband that access, share, and use otherwise unattainable information.

Federal and state governments have long sought to close or eliminate the digital divide. The American Recovery and Reinvestment Act allocated \$7.2 billion for broadband investment with local economic development being the goal. Despite best efforts, many locations still lag behind their competition and the divide continues to grow. More importantly, the country as a whole lags behind much of the developed world.

While we have the digital divide problem within the U.S., there is also the important issue of how the country's broadband standing fares relative to the rest of the world. Various rankings such as those released by the United Nations and the Organization for Economic Cooperation and Development find that the U.S. ranks in the middle of the pack globally in terms of broadband adoption per capita. There is also the issue of the growing disparity of cost of broadband in the U.S. versus other developed countries.

Broadband and the Future of Economic Development

Various econometric analyses have demonstrated a positive correlation between broadband and economic growth, and its importance in the site selection process will not diminish. With public and private investments in broadband infrastructure still surging, communities lagging



Matt McQuade is Director of Business Development for Columbus2020, the economic development organization for theColumbus region of Ohio.

behind will be placed in an ever more competitive disadvantage. More importantly, domestic policy must address the nation's competitive broadband standing to ensure that future capital investment and job creation that should occur in the U.S. does.

EXHIBIT L-2

THE MYSTERY IMPACT OF DATA CENTERS ON LOCAL ECONOMIES REVEALED

2021 JAN -4 PM 12: 33

Exhibit L-2 - 1





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PROPERTY MARKETS | DATA CENTERS

The Mystery Impact of Data Centers on Local Economies Revealed

Although they do not create as many permanent jobs as other types of projects, capital investment in data centers can be quite substantial, justifying large incentives offerings.

John Lenio, Economist and Managing Director, Economic Incentives Group (EIG), CBRE

Data Centers 2015



RELATED RESEARCH **CBRE Identifies Most** Attractive Markets For Leasing A Data Center

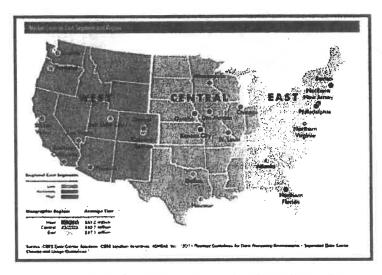
BRE's Data Center Solutions Group recently published a white paper that evaluated the overall cost of leasing a one MW data center throughout the U.S. The analysis incorporated lease costs, power costs, sales taxes, property taxes, and potential incentives. After evaluating these

primary cost drivers, CBRE's findings revealed eight metro areas where leasing a data center is relatively inexpensive: Atlanta, Colorado Springs, Dallas, Houston, Northern Virginia, Portland, Salt Lake City, and Seattle. Over the last several years, these metro areas have experienced relatively high activity in new data center development compared to the rest of the U.S. Whether driven by low power costs, availability of lease data center space, or the offering of tax incentives, data center developments tend to have a mystery impact on a state and local economy.

Jobs vs. Capital Investment

The number-one goal of policymakers is to grow tax revenues. This is true at a city level up to the state legislative level. The most common

driver of tax revenue growth is job creation. Thus, most elected leaders, reporters, and taxpayers often wonder why incentives are offered to companies building data centers. Data centers tend to be relatively low on employment. Typical headquarters, manufacturing, or shared service operations can have between 200 and 1,000 jobs on site. By comparison, the number of jobs at a typical data center can be anywhere between five and 30. A recurring criticism is, "Why give incentives to a data center that employs only 30 people when a state could be investing in a 500-job headquarters?"



CBRE revealed eight metro areas where leasing a data center is relatively inexpensive: Atlanta, Colorado Springs, Dallas, Houston, Northern Virginia, Portland, Salt Lake City, and Seattle. Source: CBRE Data Center Solutions; CBRE Location Incentives; ASHRAE, Inc.

Most forget, however, that capital investment is another driver of tax revenue growth. While low on employment, data centers are highly capital-intensive. Capital investment in a data center could be \$50 million on the low end and up to \$1 billion on the high end depending on the type of facility. This investment comes in the form of construction of a new building, purchases of computer servers, and ultimately consumption of electricity, to name a few. Following is a general breakdown of how a state and community make money from a data center's capital investment.

Revenue at the state level:

- Sales taxes on construction materials
- Sales/use taxes on equipment purchases
- Sales taxes or franchise fees on power consumption
- Personal income taxes from construction and permanent jobs
- Unemployment taxes from construction and permanent

Revenue at the community level:

- Sales taxes on construction materials
- Sales/use taxes on equipment purchases

- Local income taxes from construction and permanent jobs
- Real estate taxes on a newly constructed or renovated building
- Personal property taxes on computer servers and furniture

The Real Impact of a Data Center Which generates more revenue — a data center or a corporate headquarters?

CBRE conducted an economic and fiscal impact study on a \$1 billion data center development. Based on a typical state/community's tax structure as well as economic and demographic characteristics, a \$1 billion data center could generate upward of \$200 million in total tax revenues over a 10-year period of time, including the one-time construction phase and ongoing operations. This \$200 million fiscal impact is equivalent to a corporate headquarters creating 1,700 jobs with a \$130,000 average salary and making a \$40 million capital investment. It should be noted these fiscal impact estimates are intended to be ballpark comparisons. Actual impacts will vary from state to state and community to community.

Lesson Learned

The impacts of data center development are real and long lasting. A state/community should be equally (if not more) motivated to recruit data center developments as it would any other typical economic development project. Incentivizing a 1,700-job corporate headquarters would have the same impact has incentivizing a \$1 billion data center.

Data centers also have a significant positive impact on community development. They tend to require enhancements to infrastructure such as roads, water, sewer, and to a lesser extent power. This infrastructure development tends to support higher employment uses and, in some cases, accelerates employment growth that otherwise would not occur in the foreseeable future.

Although data centers tend to entail minimal job creation - generally in the 20- to 50-job range - this minimal job impact comes with minimal costs of services for roads and schools. Schools are not expected to experience much (if any) strain because of the lack of new students brought about by a data center development. Thus, overall, a data center can become a community's single largest taxpayer.

state/community should be equally (if not more) motivated to recruit data center developments as it would any other typical economic development project. Incentivizing a 1,700-job corporate headquarters would have the same impact has incentivizing a

billion data cent

John Lenio, Economist and Managing Director, Economic Incentives Group (EIG), CBRE John Lenio is an economist and managing director in CBRE's Location Incentives practice. The practice specializes in identifying, negotiating, and securing economic and tax incentives for CBRE's corporate clients in the United States and Canada. Since 2004, the practice has secured incentive packages valued over \$1.5 billion for companies ranging from AT&T,. American Express, and US Bank to McKesson, Lexmark, and Discover. Lenio has managed incentive engagements in all 50 States and 10 provinces in Canada. This has given him unique insight into the nuances of economic development and site selection from primary urban centers to secondary and tertiary communities. In addition, he is a widely sought after public speaker and subject matter expert in areas of site selection, economic development and tax policy, and tax incentives. Lenio has been a practicing economist since 1998 and has become a leading expert on matters of restional and regional economic development. multi-family residential national and regional economic development, multi-family residential development, economic and fiscal impact analysis, and real estate due feasibility studies. He completed his undergraduate and graduate studies at Arizona State University studying economics (bachelor's and master's), business administration (master's), and quantitative business techniques (certificate).

DATA CENTERS

Primer: The Impact of Taxes & Incentives on Data Center Locations

Q1 2014

EXHIBIT L-3

DATA CENTERS' IMPACT ON LOCAL ECONOMIES

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Exhibit L-3 - 1

Data Centers' Impact on Local Economies



Data Centers' Impact on Local Economies

Feb 13, 2019 | Posted by Staci D'Aguanno | iMasons Blog |

Top-of-Mind for Digital Infrastructure Leaders

This is the fourth in a series of five blog posts reflecting the top-of-mind issues discussed during the most recent Infrastructure Masons Advisory Council meeting, held in London in November. The Advisory Council is made up of end users and partners from across the digital infrastructure ecosystem.

In March 2018, the research firm RTI International published a report confirming a frequently quoted statistic about the multiplier effect of data centers: "For every 1 data center worker, there were 5 jobs supported elsewhere in the economy by operating expenditures – after the surge in jobs caused by capital expenditures."

The RTI International report was funded by Facebook and analyzed the social media company's U.S. data center fleet, focusing on how their construction and operation impact the economy, the environment, and communities. The data likely applies beyond Facebook as well, to most data centers in most U.S. communities.

A study prepared for Google in February 2018 examined the impact of Google's significant investments in data centers and fiber infrastructure in Europe. Since 2007, Google has made EUR 4.3 billion (nearly \$5 billion) in data-center related investment. The report, European data centres: How Google's digital infrastructure investment is supporting sustainable growth in Europe, concluded that Google data centers have delivered large benefits to local communities across the European Union.

Specifically, during the period 2007-2017, Google's data center investments in Europe supported 6,600 jobs per year on average. The multiplier effect has fluctuated depending on when the four data centers were under construction and when they were put into operation. The total job impact varies between roughly 2,500 and 13,000 jobs per year.

"For every 1 data center worker, there were 5 jobs supported elsewhere in the economy by operating expenditures – after the surge in jobs caused by capital expenditures." – Click to tweet

That Google and Facebook funded such reports (and others have as well) reflects the fact that digital infrastructure leaders are committed to positively impacting local economies. But at the most recent Infrastructure Masons Advisory Council meeting, members were concerned that the message isn't getting across.

Getting local authorities on your side

It's essential that local authorities understand that message – that they understand, as the RTI International report said, for every \$1 million in spending on data center operations, 13 jobs are supported elsewhere in the economy.

Advisory Council members said telling the story of economic development is essential for the future of digital infrastructure success. That's in no small part because tax breaks and other incentives are often predicated on the community-wide economic development that a data center will bring.

"For every \$1 million in spending on data center operations, 13 jobs are supported elsewhere in the economy." — Click to tweet

"One of the things we've seen is that local legislators are starting to talk about rolling back incentives," one partner said. "That is something that we as a company are concerned about. That's a big concern for the industry."

Understanding the ecosystem

One end user said he believes both the public and elected officials lack awareness about the impact of the digital infrastructure industry.

Tax revenues, job creation, and capital investment together drive economic growth in a region. Capital investment in a data center could be \$50 million on the low end and up to \$1 billion on the high end, depending on the type of facility. And there's ongoing investment as well, of course, including a data center's largest operating expense: energy. Jobs are created both directly and indirectly, which raises tax revenue.

But as one end user suggested, often people do not understand that full ecosystem and flow-through of direct invested dollars and what that means to GDP and economic activity in those specific countries and regions.

"People do not understand the full ecosystem and flow-through of direct invested data center dollars and what that means to GDP and economic activity in those specific countries and regions." – Click to tweet

That end user's company has also commissioned independent global studies to assess the impact of data centers. And they also found that "for every direct job that we provide, another 5 are created indirectly or induced because we've come into that city or region. And that's billions of euros or dollars of GDP economic activity."

But as the other Advisory Council members agreed, the end user said, "People are generally unaware of this impact. That's a dangerous situation because [policymakers] start to regulate things they don't really know well."

"People are generally unaware of data centers' broad economic impact. That's dangerous because policymakers start to regulate things they don't really know well." — Click to tweet

The trouble with tariffs

Another dangerous situation – and perhaps another example of policymakers not understanding the full ecosystem – is the impact of federal steel tariffs on data center construction.

"Because of the way we do construction, tariffs are starting to play a big role in the costs of construction," one partner said. "We don't do a lot of pre-cast and inside of the building itself it's all steel. We had to do a lot of pre-buy in the fall to shore up against the steel tariffs."

Success in Nevada and Virginia

Not all policymakers lack an awareness of the impact of digital infrastructure.

For example, in November 2018, the Nevada Governor's Office of Economic Development approved \$25.2 million in tax abatements for a data center on 64 acres of land. Justifying the incentive, the state said that the \$25 million tax abatement amount was standard for a project of this type and pointed out that the total incentive package was less than 5 percent of the company's total 10-year investment projections.

Likewise, in Virginia, a Richmond-based research firm determined that the state has seen a strong return on its investment in attracting data centers. In Northern Virginia, for every dollar in county expenditures, the data center sector provided approximately \$9.50 in tax revenue to Loudoun County and approximately \$4.30 in tax revenue to neighboring Prince William County, the study concluded.

As the RTI International report says, multipliers represent how data center activities have a larger connection to the economy as a whole. Community impact extends far beyond the physical footprint of the data center.

Come back in two weeks for the 5th installment in our top-of-mind series and hear from the Advisory Council on Cryptocurrency.



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EXHIBIT L-4

MEASURING THE ECONOMIC IMPACT OF ONE DATA CENTER

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Exhibit L-4 - 1

Measuring The Economic Impact Of One Data Center

Posted on October 31, 2018 by Jessica Ciesla



It is no secret that the world revolves around data. This data might take many forms, and for those people with child-like imaginations it might seem as if the data is floating by in the air just out of reach. However, the reality is far simpler: data needs to be stored somewhere, which has led to a boom in data center construction across the world. From micro-embedded data centers to submerged ocean data centers, companies are rapidly expanding their global data center portfolios. The question that remains is, "why?"

Where And Why Are Large Scale Data Centers Being Built?

In 2014, managed hosting provider Cervalis announced that it would create a massive data center in Connecticut. The construction and maintenance of the data center promised to bring 3,000 jobs to the area. In a location that is close to the water, New York City, and Boston, but suffers from hurricane threats and winter storms, the question on everyone's mind was, "how valuable would the move be?" The answer was a sweet \$400 Million when CyrusOne purchased Cervalis data centers in New Jersey, New York, and Connecticut in 2015. By expanding its portfolio to 31 data centers, CyrusOne was able to successfully branch out into the U.S., UK, and Singapore markets.

Fast forward to 2018 and another big name, DC Blox, has continued its own ambitious plans for building U.S. based large scale data centers. The company envisions stretching into 19 secondary markets within the Southeastern sector of the United States. Currently the company only has online locations in Chattanooga and Atlanta. However, the company just announced that it has purchased a 27-acre former steel plant in Birmingham, Alabama. In August, DC Blox will begin construction and in September its Huntsville location will open.

While most data center companies have gone the traditional route of pitting cities against each other for massive tax breaks, DC Blox has taken a different tactic. It believes that data centers should be built in locations where the local community can work together to accomplish something that is truly amazing (and of course financially beneficial). In this vein, DC Blox chose Birmingham because it is home to two major regional banks, a major university, has a very strong health care sector thanks to Blue Cross Blue Shield, and conveniently doesn't have a reliable purpose-built data center.

Understanding The Financial Impact Of Data Centers

If DC Blox's data center location strategy pays off, then it could reach a \$785 million investment over the next 10 years alone. While DC Blox stands to benefit, so too does the local economy. According to a recent U.S. Chamber of Commerce's Chamber Technology Engagement Center (C_TEC) report, the average data center has the possibility of adding \$32.5 million to the local economy every year. Additionally, data center construction has the opportunity to create an extended economic impact. The same C_TEC report found that during construction a data center will spend an average of \$77.7 million on 1,688 local workers. This figure coupled with the average \$9.9 million in revenue paid to local governments and the state on yearly basis, can provide the funds needed to support public services and thus further bolster the local economy.

However, in the face of the potential for a strong financial impact, data centers must avoid becoming "too caught up in the numbers." If a data center fails to be reliable, have a high uptime rating, and remain secure, then it will not survive, which means that the positive financial impact will cease to exist after construction. To this end, if the local economy and the data center want to enjoy a lucrative financial investment, then they need to take efforts to future-proof their technology solutions from day one.

Thanks to Raritan's intelligent PDUs, data centers can now enjoy a future proof design architecture that's built for the long haul, while simultaneously providing the reliable power management needed to enjoy a positive ROI. But what is reliable power management without a strong defense against cyber attacks? Cue the introduction of KVM switches to protect vital data from cyber criminals. This simple tool can eliminate risky data sharing, provide additional control, remove desktop clutter, and block the signals used during a cyber-attack. The moral of the story is simple, data centers will continue to be built at rapid rates across much of the globe. Whether large or small, every data center has the opportunity to provide a positive financial impact on the local economy, so long as the right tools are used to create an environment of reliability, security, and agility for years to come.

Blearn more, visit our website here.

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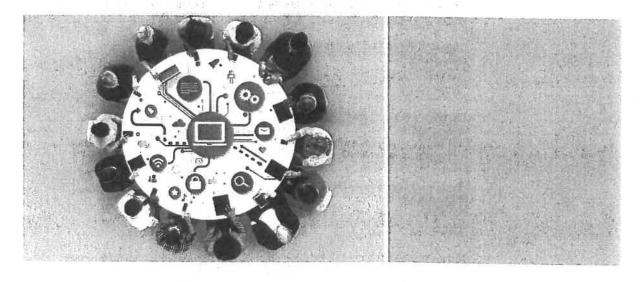
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The Interconnected Ecosystem Everyone Will Need

Always Connected



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The Interconnected Ecosystem Everyone Will Need

OVERVIEW

In an increasingly interconnected world, the Multi-Tenant Data Centre (MTDC)
Ecosystem is already playing a key role in bringing businesses, their partners and their customers together, and its importance is growing exponentially. In this article we draw in the experience of Global Switch and the research insight of Gartner to answer some of the big questions this evolving business environment is posing:

Who is participating in the Ecosystem?

We analyse the organisations that form our Ecosystems and how they interconnect

What makes a multi-tenant data centre into a digital hypermarket?

We look at the role MTDCs are increasingly playing in creating and growing our Ecosystems

How can I plan and futureproof my own Ecosystem?

We outline the key considerations, from infrastructure to a critical mass of participants

What are the key challenges to a viable Ecosystem?

We focus on the factors that are shaping this still-evolving digital territory

Which locations work best for an MTDC Ecosystem?

We help you narrow the search for the ideal MTDC

We conclude with a look at Global Switch, the part we are already playing in a fast-growing global Ecosystem and how we can help your business take advantage of the opportunities on offer.

INTRODUCTION

There is no doubt that MTDCs are increasingly taking centre stage in the evolving world of digital business. Recent Gartner research has identified a cultural shift that is needed among technology decision-makers to cement this new role:

Digital business is enabled and enhanced through high-speed, secure, low-latency communication among enterprise assets, Cloud resources, and an Ecosystem of service providers and peers.

Architects and IT leaders must consider carrier-neutral data center interconnection as a digital business enabler.¹

The role of the modern MTDC

Gartner is not a lone voice in extoling the virtues of the MTDCs – large, anonymous buildings with more CCTV cameras than people in secretive locations and with tenants often happy to stay anonymous. Their growing importance, though, is bringing more attention to the modern MTDC.

The economic reality is that building costeffective data centre space and compute/storage
infrastructure requires real scale, so only the
most important data and unique services are
likely to get the personal in-house treatment for
much longer. Customers from all sectors looking
towards the future and deciding where to place
important data and applications have what seems
like an ever-growing number of choices, with
new topologies for Cloud solutions being created
almost daily.

Connecting the connectors

There are several iconic 'Carrier Hotels' across the globe which today offer the best examples of successful Ecosystems within the MTDC industry. There is not one telecoms Carrier that connects everywhere on the planet and, with the users' expectation of being able to dial any phone number or load any website instantly, the only way that works is for the world's Carriers to interconnect with each other.

It was recently the 20th birthdays of LINX, AMS-IX and DE-CIX. These European Peering Exchanges have been instrumental in demonstrating that massive interconnection fabrics are not only possible to create and scale, but also how important a sense of community is within a successful Ecosystem. This is especially true today as we see the European exchanges

bringing their models to the US, where peering and interconnect is often considered less open and so more difficult and costly.

When looking for the value-creating future Ecosystems which we are discussing here, the Carrier Hotel can certainly play its part and often has small deployments from non-Carriers who want to distribute or aggregate content with that community. It is not, however, somewhere an Enterprise or someone looking for something a little larger than a few racks would likely select; this is not after all the core business of a Carrier Hotel.

Next generation hubs

Today, we are seeing Enterprise, Internet/
Content, Cloud, Media and Telecoms companies
with a common desire for locations where they
can interconnect. We will also see entirely
new sectors sucked into this Ecosystem with
the expected loT revolution. The expectations
of users in terms of mobility, performance and
flexibility are increasing and an ability to deliver
is why the developing Ecosystems within large
scale Carrier and Cloud neutral MTDCs are
becoming so magnetic.

The argument here, as with Cloud service adoption, is that reducing cost is a driver but the main aim and approach should be to realise real

strategic benefit from your selection. The MTDC should be a considered a platform which supports multiple areas of the business and where competitive advantages are more easily found and more quickly delivered.

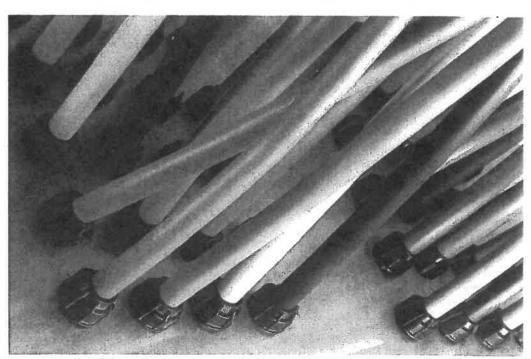
Gartner stresses the importance of this integrated approach, identifying a need to: Integrate colocation planning with IT and business unit functions beyond the standard facilities and procurement organisations, where possible, to ensure that colocation decisions are optimized to support broader digital business plans and not just one-off, silo-driven projects.²

WHO IS PARTICIPATING IN THE ECOSYSTEM?

Enterprises, Internet Content providers, Systems Integrators, Cloud, Media and Telecoms businesses are all discovering the advantages that come from colocation-based interconnectivity.

A diverse and increasingly interdependent population

The days of the Enterprise data centre being a secure island with a resilient connection back to the head office and an Internet connection are gone. The Internet is now not the only third party 'location' to which access is required —



Global Switch London East

applications such as Salesforce, ServiceNow and Microsoft Office 365 are deemed mission critical, and even social resources such as Facebook, Twitter and LinkedIn are tools customers expect to be engaged with and informed by. This is all before we consider the growth in consumption of Cloud computing resources provided by Alibaba, Amazon, Google, IBM, Microsoft, SoftLayer and many others.

Gartner research is clear on this point: with hybrid solutions and a plurality of Cloud providers and service providers overwhelmingly likely, establishing a 'home base' in a neutral, wellconnected location is critical for future proofing an architecture.1

Furthermore, Gartner's researchers have suggested that it is necessary for businesses to: plan for a multi-provider strategy, and begin transforming their organisation into a broker of Cloud services. Delivering IT as a service (ITaaS) will require training, integration and investments in hybrid architectures for networking, identity, data and other key services.3

Now the Internet may be the most resilient of networks, but with all these new and critical endpoints being brought into play it should not be considered as Plan A, B and C for the delivery method of IT services for a company. Direct connections with diversity and redundancy will increasingly be required. As usage increases and new applications are delivered in this way, even more bandwidth will be needed, with fibre or high capacity Ethernet being the solution of choice.

Even the large Systems Integrators who have held onto their own modestly-sized data centres have been divesting of these locations in favour of large footprints within MTDCs. Here they can take advantage of the wider Ecosystem, fireproofing themselves from changing customer requirements and tapping into resources which they no longer want to build themselves, or cannot build competitively.

Gartner has charted a fundamental shift in approach: when we combine interconnection with high-speed enterprise access to the multi-tenant data centre (for example, Ethernet over fiber), and include enterprise assets such as compute, storage and, in particular, networking, located in the multitenant data centre, what we've done is bring the enterprise and its applications to the network, as opposed to the outdated model of bringing the network to the enterprise.1

The large Internet companies who are providing much of these Cloud computing resources alongside their other businesses are also adapting their strategies. Although they are ahead of the curve in many ways, they still have much ground to cover if their aim is to service the entire globe, and we are seeing a huge amount of activity focussed on scaling and optimising their capabilities at strategic network Edge locations.

Addressing the latency question

Gartner has found that: where applications may include integration of multiple databases and data sources, the latency involved in communications is likely to stack up in complex transactions, slowing information flow to an unusable crawl. Latency becomes a killer.1

Latency, although a relative term for many within the Ecosystem, is a key factor in its development. Initially the large Internet companies set about building their region-serving hyperscale data centres in low cost locations, which made sense at the time, and for many applications this has worked well and continues to do so. Amazon also developed their availability zone model with others following. However all have realised they needed to complement this with edge nodes as these locations were not always near the end-users of the services and, with aspirations to provide Cloud services to large Enterprise users who had performance expectations (and required SLAs), a new approach was required.

Gartner further emphasises this point here: Advanced digital business applications are likely to involve significant database use, disparate data sources and multiple Cloud providers, with a need for very low latency between the systems. This is unlikely to be served through WAN links from enterprise to individual Cloud providers, with switching taking place back on the enterprise's premises. What's needed is very high performance via a programmatic, secure and manageable fabric. Early trials of such technologies between Cloud providers and associated service providers have been very promising, but have demonstrated the need for speed.1

Living on the Edge

With the speed of light through glass (optical fibre) not something which can be materially improved, latency here would seriously impact upon more sensitive applications' performance. As Gartner suggests, the impact on complex transactions where latencies for

different elements get stacked can destroy the user experience:

The goal of the Edge approach is keeping the heaviest of the new traffic and processing at the edges of the Internet, closest to the user applications and devices that are the sources and sinks of this traffic.

Despite the common image of huge 'Cloud farms' in remote locations, many Cloud providers already augment these mega data centers with Edge presence in colocation centers near concentrations of users. They have been exploiting the Edge concept for years.4

Despite the significant reduction in connectivity costs over recent years, the enormous amount of data that needs to be transported to and from these remote locations, with a continually changing regulatory environment (including issues of data sovereignty), has made moving some functionality to the Edge — closer to the end-user — a more common approach for all the major public Cloud providers.

A shift in strategy

Telecoms Carriers and service providers have spent years doing their best to interconnect as many MTDCs as possible, as their analysis tells them the returns on investments made at these locations are consistently above other building types. Enterprise customers and Systems Integrators have been increasingly using MTDCs instead of building their own sites. Financial exchanges and information services have been creating new communities and locations for trading and hosting companies, fuelled by the continued growth of e-commerce. This has all meant more demand for telecoms services to and from these sites. With the impact of Cloud, the IoT and further globalisation, these demands will keep changing into the future, and most likely with an increased pace.

Every single Carrier is now expected to have a public Cloud interconnect product and a roadmap to a software-defined future with 'elastic' (utility) based pricing. Indeed, the Carrier sector is one of the most interesting to observe as this is where the biggest changes in strategy are occurring:

- Large US Carriers are acquiring significant media and content assets.
- Cable companies are looking to bolster and extend their infrastructure reach and enter the Enterprise IT and connectivity services marketplace.
- Fibre and global cable system owners are providing data centres and their own Cloud services.

There is also the Asia-Pacific (APAC) region's explosive growth in both telecoms and Cloud services, with Singapore and Hong Kong providing beach-heads for many western companies. Potentially more exciting is the reverse with the APAC Carriers expanding into the US and Europe, especially with the major Chinese Carriers all expanding at a pace often in tandem with their hyperscale Cloud and e-commerce compatriots. Then there is India, which is already an integrated part of many international companies from a service perspective, but some say has the potential to even surpass the US in terms of GDP over the next several decades.

New entrants to the Ecosystem

We must also consider the new entrants into the Ecosystem such as the specialist Cloud Exchange providers. We have seen the success of Peering Exchanges and other network interconnection fabrics, and the models for these new platforms and the underlying technology (Ethernet switching) are essentially the same for Cloud Exchanges. However, these providers are generally software specialists above and beyond their networking expertise. We have described how the public Cloud providers are moving services and access points towards the edge of the network, but what should be noted is that not every major MTDC will have every Cloud provider resident. Today, most Cloud providers have 1 or 2 access points and deployments per Tier 1 city, although new infrastructure is being deployed all the time. Whilst latencies within metro areas are low and the price of fibre and bandwidth are competitive. these service providers are filling in a gap by placing themselves in more of the main MTDC locations with not only direct access to the

Cloud providers but also with slick user interfaces and 'elastic' pricing, where you only pay for what you use.

Cloud Exchanges ensure, using the best local Carriers and fibre providers, that they have high quality low latency access to the Clouds, just like the Carriers themselves — although their neutrality should allow them to provide more optimal solutions. The Carriers who no doubt have the lower cost base, and so will increasingly benefit as bandwidth demands to the Cloud increase, are now up against solution providers with enhanced user Interfaces, open API's and an agile development approach. They of course must buy from the Carriers to interconnect their nodes and so the Ecosystem is further reinforced.

The impact of the Internet of Things

The IoT is much talked about and anticipated and, along with Artificial Intelligence advances with personal helpers and interaction with Bots, it promises to change the world in which we live considerably. There is no doubt the Internet and the Cloud have democratised the ability to provide services to a wider audience. What we are now seeing - with the new suites of big data and analytics tools - is the ability for just about anyone to interact more efficiently and effectively with their own and even large publicly-available data sets. There are not many industries which do not capture and, to varying degrees, analyse and utilise their operating data. So what we will see is the ability to move this data to a service provider in an MTDC to better analyse it with previously unavailable smart tools. This will be made easier as the applications and databases are also moved into the Cloud. So we will see existing data sets being analysed by industries who have perhaps not been huge users of the MTDC previously.

A growing community that has reached critical mass

The natural next step is for the technology companies and Carriers and, in particular, mobile operators to allow more of these technologies to be connected in order to analyse this data in real time. This only works at the likely scale required if Cloud computing is at its heart and where resources can be quickly scaled up and down and adapted over time. The inhabitants of the Smart City are often cited as the big winners in the IoT and it is hard to argue with the potential benefits and savings which could be seen in areas such as transport networks and utility infrastructures.

This again sees more and more companies and organisations drawn into the MTDC Ecosystem, either directly or via the Systems Integrators and Cloud Providers.

The net result is a growing list of participants, all of which see opportunities and often necessity in being a part of the right MTDC community.

WHAT MAKES AN MTDC INTO A DIGITAL HYPERMARKET?

Location, power availability, connectivity, scale and scalability - these are some of the key ingredients that every MTDC needs in order to attract participants and evolve into a fully functioning digital hypermarket.

Understanding participants' needs

For the MTDC to become a strategic platform for its participants, it must firstly understand their requirements for core services such as space, power, cooling and security. Increasingly, these requirements can vary within a single customer deployment, certainly in terms of power density, redundancy and the associated floor layouts. So an open and flexible approach to design is seen as attractive, especially with global companies who increasingly use pod-based IT designs, each specific to a certain application or function.

Being close to end-users

The MTDC needs to make it fast, easy and cost effective for the participants to interconnect, and should be open to helping its service provider community promote their services. The MTDC should be in a geographical location which is close to the end-users its customers are looking to serve, whether that is the general population consuming rich media or central business districts where enterprises congregate. Being a hub for the procurement of digital services and supporting its local communities, minimising latency impacts and enabling the smart city are all part of its new role.

Gartner finds that geography is every bit as important as technology: In essence, the edge manifesto borrows from the real estate slogan of "location, location, location". The concept is to avoid issues of latency and congestion by placing compute resources and content closer to concentrations of users and sources of data. Rather than simply a technology, it's also a concept of topology.4

Opening up the widest connectivity possibilities

The MTDC also needs to understand that it is not an island and its service provider community holds the keys to interconnecting its customers to the outside world — and, yes, to other MTDCs as required. Where the MTDC does not have all the participants it would like from a service provider perspective, it needs to work out how to fill those gaps. This is a challenge, certainly for some of the more out-of-town MTDCs.

Delivering scalable infrastructure

The MTDC must have a robust connectivity infrastructure which is built at scale over years to provide capacity for the future. Where there is flexibility in design, there also needs to be flexibility with regards to interconnection. The Meet-Me-Room (MMR) was traditionally where the Carriers terminated their fibre and placed their network transmission equipment, and the customer suites were connected via cross connects delivered over structured cabling systems from there. Now we are seeing service providers spread throughout the building, and the interconnection system must cater for this. We also see customers who need to bring in thousands of dark fibres directly into their areas with a preference to avoid intermediate patch panels, or terminating in an MMR en route. The MTDC who does not cater for these extreme requirements, or who maintains a policy of charging per fibre even for bulk deployments, will not be considered too highly by these often magnetic customers.

Gartner sees stark consequences for those failing to act: Any inability of the colocation providers to scale their interconnection resources to meet the demands of hundreds of thousands or even millions of users could make the model unusable by the very constituency it most appeals to—very large enterprises.¹

So an MTDC with infrastructure such as a structured cabling system, which is both scalable and flexible, can be crucial in attracting important participants to our Ecosystem. Indeed many MTDC operators will actively subsidise acquiring participants they believe will be beneficial to their Ecosystem. What is harder to control is establishing a good connectivity profile and getting real fibre from multiple providers along multiple routes into the building.

Participants are increasingly global in their requirements, so an MTDC which has service providers with direct access to major fibre routes and cable systems (where capacity can be accessed to reach other countries and continents) is becoming more important all the time.

Ultimately, today's MTDC really needs to present itself as a modern digital hypermarket or digital services exchange. Its internal marketplace needs to be competitive and should be open to all service providers. Prices for fibre and wavelength capacity, which are the building blocks for many of the high bandwidth and Edge services, can make or break MTDC deployments for an increasing number of companies. When all these elements do come together effectively, It is easy to see how growth amongst the Ecosystem participants can become a virtuous circle.

HOW CAN I PLAN AND FUTUREPROOF MY OWN ECOSYSTEM?

identifying your own Ecosystem requirements is critical, but imagining how that Ecosystem and your priorities may develop and change past, say, 5 years out is probably impossible. This is again why a good MTDC is important as it can futureproof your investment by being able to adapt as your requirements evolve.

Scalability and flexibility are key

If the MTDC has enough scale it will have scope to allow for its service provider community to expand and its larger customers to grow over longer periods of time. It is worth noting here that ownership of the land and building can play a major role in the long-term investment approach MTDC providers will take.

Gartner explains that businesses ready to take this need for flexibility on board must: Design and build prospective digital business applications paying particular attention to the complexities of connecting many 'sources and sinks' (originators and consumers) of information with the appropriate business logic, in a manner that is low latency enough to prevent excessive delay.¹

This is why the MTDC Ecosystem will be the place where so many requirements for so many different types of companies will be satisfied. Each customer not only has their own 'sources and sinks', but is often an originator or consumer of information for other members of

the Ecosystem. Within the MTDC, the Enterprise customer may use the Systems Integrator and Cloud Provider for infrastructure, data storage and applications hosting and, as Gartner states, likely a combination of multiple providers. They will then all rely on the Telecoms Carriers to move the data between external sources and sinks (end-users and other remote Cloud infrastructures). For those Enterprises who prefer to deal directly with the MTDC and maybe value greater control over their Cloud adoption strategy, having so many different service providers on-tap will provide excellent levels of flexibility - exploring the Ecosystem to identify new trusted advisors and building new relationships should certainly be on the to-do list.

A community that is evolving with business demand

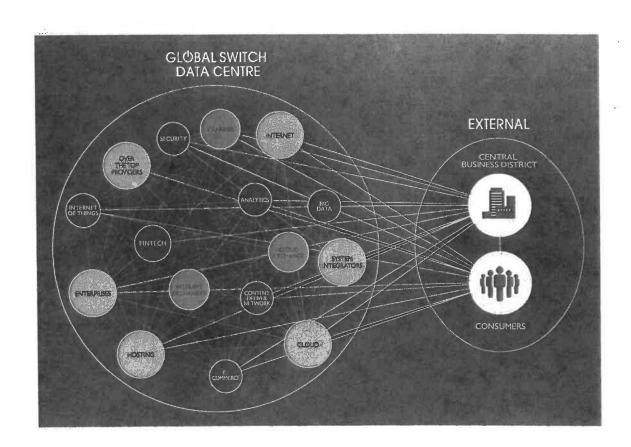
Right now the Carriers are laser-focussed on improving their Cloud connectivity offerings and are working hard to find the right locations to interconnect with everyone and hopefully differentiate themselves. The Cloud providers also have their day job, which is to provide access portals for the general public and Enterprise end-users to find information and goods and services — which are often provided by the Enterprises themselves and which further ties them all together.

All of these activities are critical and their requirements are satisfied from within a well-located MTDC with a strong Ecosystem.

Gartner research shines a light on this fastchanging landscape: The notion of edge computing is not novel, but conducting business directly and digitally involving rich media calls for spreading the deployment model out, not consolidating into one geographically centralized source. Cloud providers, content-offering cable TV providers and large industrial companies such as GE are proving the concept valuable. Whether for reasons of data sovereignty, avoiding latency, business continuity/resilience or simply lowering costs, the edge computing model will continue to grow in practice.⁴

WHAT ARE THE KEY CHALLENGES TO ECOSYSTEM DEVELOPMENT?

Developing a strong, well-populated Ecosystem is obviously desirable for the MTDC operator, but there are some challenges that need to be overcome. They include attracting initial and subsequent Carriers to the site and ensuring the availability of popular Cloud services



Going back 10+ years, there were the Peering Exchanges which could bring in Carriers with their fibre. Around seven years ago, we saw the rise of the MTF's (Multilateral Trading Exchanges) and high frequency trading which brought a niche of financial companies competing in microseconds. Now we have the public Cloud access points and Internet Edge deployments. Capturing these larger (300kW+) deployments can be crucial to a strong Ecosystem as it often means more of the real compute and Edge functionality is taking place within the site rather than it being simply a collection of network aggregation points with work being done elsewhere.

Attracting the first Carrier is just the start

Often the first focus for a new MTDC, along with securing an anchor tenant, is to encourage the Telecoms Carriers to connect the building onto their fibre networks. Carriers are very keen to connect these buildings, but investments which require the construction of large sections of new network can be considerable. If the MTDC is away from the CBD or from an existing carrous or fibre foute, it is harder to attract significant connectivity. In some cases, only one or two providers make the investment with others simply purchasing this fibre for their own access, although even these last mile costs can still be prohibitive.

More diversity, less neutrality

Ist this often ticks the marketing box for connectivity, the requirements for multiple diverse routes and hundreds of fibres which Ecosystems often require is not satisfied. The Carrier owning the fibre is also better placed to maintain higher margins to recoup the investment they made in a shorter time, which is good for them but bad for the Ecosystem. What we also see is the MTDC partnering with a single Carrier or building, and then subsidising their own connectivity solutions back to better-connected locations to enhance their connectivity offerings. This can be a double-edged sword as it obviously immediately helps potential customers but also discourages other Carriers from connecting as they feel competition with the building owner may not be easy.

Up until recently, MTDC providers often had a strict 'Carrier neutral' policy proudly displayed and discussed enthusiastically with customers. As aging sites have filled up and business models have been challenged to show growth, the Carrier

neutral banner has become somewhat greyed. From some MTDCs the message has become, "Yes, any Carrier can become a customer, but we are going to be competing or reselling our preferred providers services as well".

Gartner suggests this agnostic approach is now the norm: we propose that topology, technology and design all favor building a digital business solution using colocation-based, programmable networking, which we will call "data center interconnect fabric", allowing dynamic interconnection between enterprise peers, Cloud providers, communications providers and a growing marketplace of service providers.¹

Building a Cloud Exchange platform

We also know that no MTDC provider has all the major Cloud service providers in all their locations, so the challenge has been how each MTDC has filled in those gaps. This is where we see much current activity and the real difference in strategies between some of the MTDC providers. Most have decided to build their own Cloud Exchange platforms, some have upgraded old Ethernet Exchanges and intersite network infrastructures with limited success. For a new, remote or poorly connected MTDC, it is almost a necessity to be able to list these services as available, and building a basic Exchange can be done relatively cheaply.

As most Carriers will agree, building the network itself is relatively straightforward. Indeed, you can buy 'off-the-shelf' Cloud Exchange solutions from a number of very credible vendors. The complexity comes when you get customers who want to use the network and when several of them want to use it at the same time, or when a user tries to take advantage of its 'elastic' abilities.

An Exchange that does more than tick the boxes

Operating and scaling a network is a specialist occupation, and especially so if you have a lot of bursty traffic. The disciplines of capacity planning, upgrades, maintenance and certification of new software releases are well understood by many, but with these new platforms also being based on software defined networking (SDN) which is still in its relative infancy, acquiring experienced, skilled engineers will also present challenges. If your customers are going to rely on this service, you must get it right.

If, however, the Cloud Exchange is simply an expensive marketing tool to tick the 'we have Cloud access' box, then maybe the operation and scaling is something that does not get tested.

If the MTDC wants its customers to be able to use the Cloud Exchange, the service orchestration piece is very important. It is possible to build a network platform and link in all the major public Cloud providers, but if the platform then requires a fully qualified network engineer to bring up a connection and a team of accountants to understand the elastic invoice, it may not be that successful. The investment in the software required is not insignificant and there are very few examples of MTDCs doing this well today.

The Carriers themselves with their established network provisioning, monitoring and billing systems have generally made a better fist of this area, but much of what is on offer is still just functional rather than intuitive. It seems logical that, with this being much more closely related to their core businesses and the fact that they have established systems, they will develop the offerings to the required standard more quickly you would imagine it will form a key part of several current SDN projects deliverables.

A role best left to the specialists?

It is the new breed of specialist Cloud Exchange providers, discussed earlier, who are leading the way in terms of customer engagement and user interface, and it will be interesting to see how long they stay ahead of the game and also how long they remain independent.

When you consider our aspirations to have important Enterprises interconnecting with Internet companies and the biggest Carriers and Cloud service providers, the wisdom of an MTDC providing a Cloud Exchange or other intelligent connectivity services can be questioned. For it to be successful, you need usage and therefore volumes of bandwidth and data flowing, but you would question if any of the participants in an Ecosystem would really rely on a network infrastructure built by the relatively inexperienced MTDC provider, especially as the skills and resources required sit outside of their core offering. If this also comes at the expense of competitive pricing and choice, the Ecosystem is disadvantaged further still.

There is an element of the chicken and egg here as they will not get experience in operating and scaling the infrastructure without customers trusting them, but it should be expected that, longer term, the Carriers and specialist Exchanges will provide superior platforms, certainly without significant investment on behalf of the MTDC.

WHICH LOCATIONS WORK BEST FOR AN MTDC ECOSYSTEM?

The decision on where to be part of an MTDC Ecosystem comes down to its ability to deliver against your key connectivity requirements today, and to adapt when your needs and your business inevitably change.

A centre equipped to move with the times If an MTDC is able to constantly develop and refresh its Ecosystem against the backdrop of a fastchanging technology landscape, it should provide a high level of protection from any adverse headwinds.

Gartner sees this is as an increasingly businesscritical decision: The ability to integrate multiple applications, data types and data sources in a secure, predictable, lower-latency fashion will spell the difference between digital business success and failure.1

Sites which are larger and capable of supporting several major Edge deployments will have the scale to further protect participants from the impact of these changes. MTDC providers who own the land and buildings will also always have more of an incentive to plan for the long-term and upgrade and redevelop facilities over many years.

Well-positioned for global business developments

Looking at the global marketplace, depending on your own Ecosystem, it may be wise to consider the potential impact of the fast-developing regions of the world, with China and India the obvious economic engines within Asia. An MTDC whose Ecosystem provides access to companies from these regions could provide real opportunities and be the first step towards potential international expansion.

Low latency and connectivity-rich locations

As Cloud services develop and their complexity increases, the issues of latency and location will only get more acute. Being close to the enduser - whether a business district or a population centre - will for many core applications be the only way of ensuring adequate performance. The delivery method will increasingly be wireless at the point of use, but that will actually only increase use of the fibre backbones which will be needed to connect the new generation of very local access points at even higher speeds.

Access to excellent connectivity, including high volumes of dark fibre and low latency Ethernet for metro aggregation and distribution, will be a

necessity for many. Access to international capacity and to the global Tier 1 IP backbone providers is equally important, and we will continue to see new cable systems designed to terminate in major MTDCs where their end-users are located.

Maintaining neutrality is vital

The importance of an open policy with respect to connectivity and, in particular, Cloud connectivity should also not be underrated — especially by Enterprises when selecting their MTDC. No MTDC will have all of the world's largest Carriers and Cloud providers present on site, and Cloud or Peering Exchanges can fill in these gaps excellently, but they need proper investment and are probably best provided by specialists who have the focus, experience and level of expertise truly required.

An MTDC with a policy which skews competition at best reduces competition but at worst stunts Ecosystem growth and its long-term value. As more and more critical applications are moved to the Cloud, the components which are responsible for the delivery of those services, from the physical cross connect to the Cloud Exchange and telecoms network, become only as strong as their weakest link.

A truly open policy towards service providers and a desire to help promote their services will result in an internal marketplace which should be competitive and return levels of service and pricing which benefit all Ecosystem members. Sites which have scale will provide constant opportunity for the service provider and that should see continued investment, leading to infrastructure upgrades which will deliver innovation and further competition.

A location that works on every level

So for our participants, the ideal MTDC will be close to its customers' customers and will be highly connected. It should have real scale and an owner with a long-term investment horizon. It should have an open policy and look to promote its service provider community, who In turn should deliver a competitive marketplace for services. If it can open up new global markets and provide protection for the inevitable changes, it will serve you and your fellow Ecosystem members well.

Source: Global Switch

*Colocation-Based Interconnection Will Serve as the 'Glue' for Advanced Digital Business Applications — Published 28 July 2016 ID: G00308712
*Eight Trends Will Shape the Colocation Market in 2016 - Published: 20 January 2016 ID: G0029639

²2017 Planning Guide for Cloud Computing Published: 13 October 2016 ID: G00311457

⁴The Edge Manifesto: Digital Business, Rich Media, Latency Sensitivity and the Use of Distributed Data Centers – Published 31 July 2015 ID: G00290109

Colocation-Based Interconnection Will Serve as the 'Glue' for Advanced Digital Business Applications

Digital business is enabled and enhanced through high-speed, secure, low-latency communication among enterprise assets, cloud resources, and an ecosystem of service providers and peers. Architects and IT leaders must consider carrier-neutral data center interconnection as a digital business enabler.



Foundational Document

This research is reviewed periodically for accuracy. Last reviewed on **10 August 2017**.

Overview

Key Findings

- Digital business will require the integration of a wide variety of applications and information sources. Some will be traditional customerowned and on-premises, while others will involve new data types and sources, as well as third-party data feeds.
- It is unlikely that enterprises will be able to build rich digital business applications based solely on a traditional on-premises data center, with a limited number of data sources and applications.
- The ability to integrate multiple applications, data types and data sources in a secure, predictable, lower-latency fashion will spell the difference between digital business success and failure.

Recommendations

- Design and build prospective digital business applications paying particular attention to the complexities of connecting many "sources and sinks" (originators and consumers) of information with the appropriate business logic, in a manner that is low latency enough to prevent excessive delay.
- Deploy applications that can benefit using a data center interconnect fabric model offered in a carrier-neutral facility.

 Plan for the eventual marriage between nascent data center interconnect fabrics, technologies such as container orchestration systems, and concepts such as workload and application migration, to provide the next generation of dynamic workload scheduling and placement.

Analysis

introduction

While there are many definitions and examples of digital business offered by pundits, several points are universal. Digital business will include enterprise-owned assets, whether enterprisepremises-based, colocated or in the cloud. These assets will utilize cloud technology for integration and deployment, and will be optimized in designs where dynamic, highspeed, secure communications will reduce the friction between multiple sources and sinks of information. We propose that topology, technology and design all favor building a digital business solution using colocation-based, programmable networking, which we will call 📆 "data center interconnect fabric, callowing dynamic interconnection between enterprise peers, cloud providers, communications providers and a growing marketplace of service providers:

Digital Business Defined

Digital business is the creation of new business designs by blurring the digital and physical worlds. The transition from simple digital marketing to digital business occurs as things become actors in transactions, and information about transactions (in fact, information about any measured or reported activities that can provide value to someone somewhere in a value chain) can be systematically gathered and sold for their strategic value. Digital business is closely related to digital infonomics, which assigns economic value to digital information and develops frameworks to manage digital information assets. Digital business then, is based on the interconnection of enterprises, partners and service providers. To support digital business and related new initiatives, the data center infrastructure must keep up with the changing demands of fragmented applications, many and diverse data sources and sinks, massive data growth, the desire for real-time analytics, and bimodal IT.

Inefficiencies of an On-Premises-Only Model for Digital Business

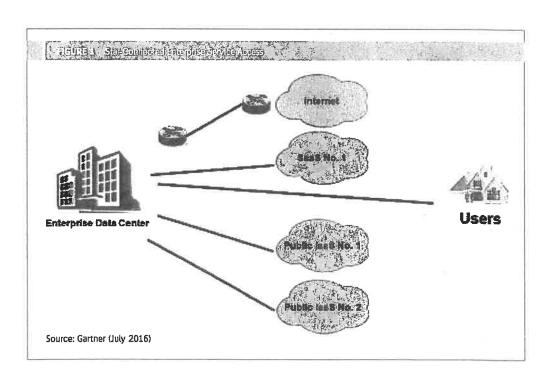
While many modern data centers may be well-connected with other enterprise data centers and have adequate internet access, they are not likely to have many specialized high-speed circuits to multiple cloud providers, service providers, information and data sources, or a plethora of peers. In essence, we look at the enterprise data center as somewhat of an island, necessitating building "bridges" or connections one by one to the partners, technologies and information that will be required of a full-featured digital business application (see Figure 1).

In other words, in an enterprise-located integration model, we must bring external networks and services to the enterprise, bring the cloud-based and enterprise-based applications to the enterprise, and, finally, build out connections to the many peer organizations involved in the digital business solution. Where applications may include integration of multiple databases and data sources, the latency involved in communications is likely to stack up in complex transactions, slowing information flow to an unusable crawl. Latency becomes a killer. In this model, the enterprise is also responsible for building out a security framework to ensure a consistent stance and degrees of access for all the various elements of the solution. While none of these pressures are entirely new, the explosion of sources, locations and datasets has exponentially raised the complexity.

Shortcomings of a Cloud-Only Model for Digital Business

One seeming solution to the inefficiencies of an on-premises model could be to base digital business applications, data and connections to peers, all meeting at a single public cloud provider. While this might mitigate the need to bring all these assets to the enterprise, as we bring the enterprise instead to the cloud, this presupposes little use of existing on-premisesbased applications, and also implies the use of one single cloud provider. In fact, many of the most valuable assets of enterprises are likely still to be located on-premises, and it is also extremely unlikely that large enterprises will rely solely on one cloud provider. We expect enterprises to use major cloud providers based on use case, much like they may have used an OS or hardware platform for specific use cases in the past. This doesn't include simply multiple SaaS offerings and a single infrastructure as a service (IaaS) provider, but also multiple IaaS providers based on use case. We also expect the need for integration between multiple cloud providers, including SaaS providers and cloud-based information sources and services (see Figure 2).

Basing the solution solely on cloud-based assets, and concentrating on one cloud provider, complicates the integration with existing assets, and particularly with other cloud providers, service providers, and sources and sinks of information. As shown in Figure 2, we expect significant value will be reliant on east-west



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Data Center Interconnect Fabric Defined

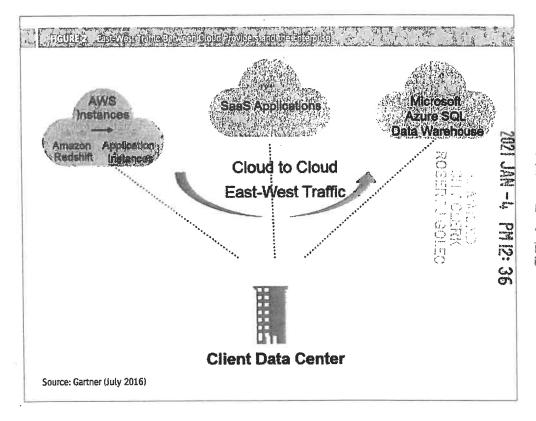
sources and partners.

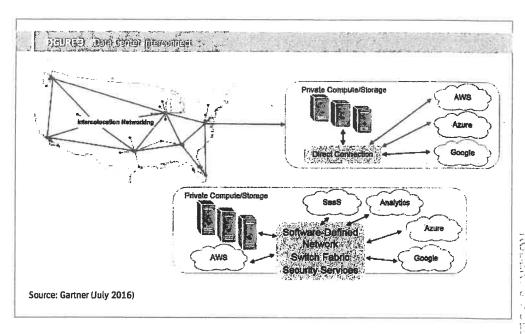
Data center interconnection is a model in which discrete assets within a multitenant data center are connected to each other directly (today, usually over fiber), and in a peer-to-peer fashion. These connections may be as simple as fiber-optic cross-connects, but allow data-center-based assets to horizontally connect to multiple carriers, cloud providers, peers and service providers. When we combine interconnection with high-speed enterprise access to the multitenant data center (for example, Ethernet over fiber), and include enterprise assets such as

compute, storage and, in particular, networking, located in the multitenant data center, what we've done is bring the enterprise and its applications to the network, as opposed to the outdated model of bringing the network to the enterprise (see Figure 3). This creates many opportunities for advanced solutions based on technology as well as topology options.

Peering in Ecosystems

The concept of data center peering using Interconnection is not new. Colocation providers were connecting network providers to each other over a decade ago in order to facilitate extended reach for network providers, Interconnecting content delivery networks with communications providers, etc. Spurred by demand for very low latency connectivity for applications such as high-frequency trading, the concept of using interconnection to build ecosystems of likeminded enterprises and information providers was spawned. In high-frequency trading (HFT) applications, where the speed of communications between partners can mean the difference in winning an individual transaction, or making millions of dollars in a short period of time, connectivity between systems directly over fiber had obvious appeal. Where there is a technological advantage, there is demand, and soon financial services ecosystems sprang up in selected colocation centers in key markets,





where customers were willing to pay a premium to be as close as possible to the exchanges and each other (see Figure 4).

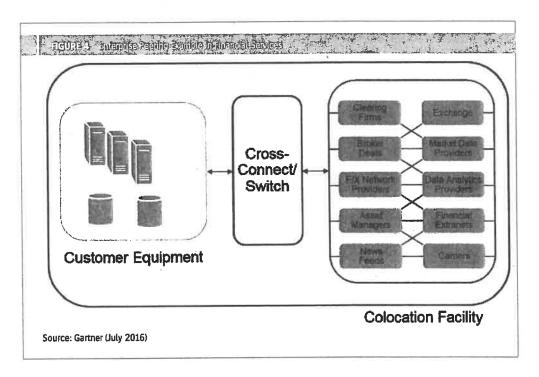
This high-speed, low-latency concept has expanded beyond HFT to other vertical industries where very large file sizes, or the need for speed or low latency, are in effect. Examples include oil and gas exploratory data in the energy sector, radiographic images in healthcare, etc. To date, many of these solutions have been based on simple point-to-point connections of fiber optics between the routers of participants. While such connections are not particularly dynamic, requiring human physical intervention to make or break a connection, the model has been quite successful. Another important effect of this interconnection has been, to paraphrase Metcalfe's Law, to increase the value of the ecosystem or local network as each additional partner joins the network. This leads to the demonstrable business value of presence in the respective interconnection centers, making it difficult, if not impossible, for partners to leave.

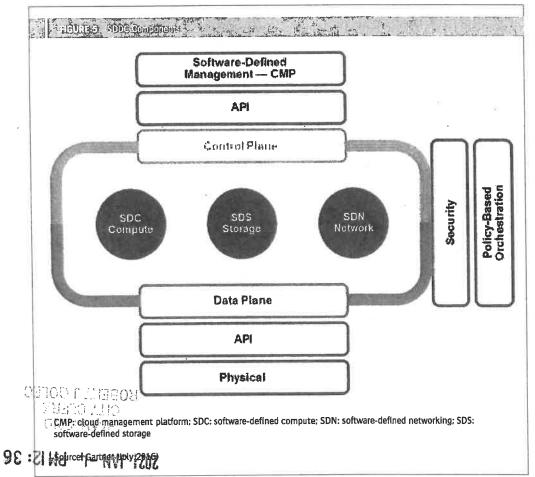
Peering Ecosystem Model With Programmable Networking (Data Center Interconnect Fabric)

Marrying modern switching technology with the topological benefit of intra-data center interconnection increases the utility, intelligence and use cases of the interconnection model. A programmable network model involves using a software-defined network that can make or break connections much like the fiber-optic connections of the past, but on a dynamic basis, either from a command line or, increasingly, API-driven. This allows participants to interconnect with peers and service providers based on logic, such as external triggers, thresholds or events. A simplified example might be establishing a connection with a cloud provider's router to spin up additional cloud instances when utilization or performance dictate. Not surprisingly, the more services, communications providers and cloud providers that are located in such an automated, switch-fabric-enabled data center, the richer the set of solutions that can be built.

The Current and Future State of Data Center Interconnection Using Programmable Network Infrastructure

Such switching technologies are not yet universally deployed across all colocation providers. CoreSite demonstrated an early product with its Any2 switch capability, and Equinix has provided the capability in its IBX. in conjunction with its multicloud capability. Epsilon has had such a capability in the European and Asia/Pacific markets for some time, and Console offers an "as a service" implementation. What is emerging, however, is the ability to control such switching through an API, enabling a broad range of application possibilities. In Gartner's view of the software-defined data center (SDDC), we migrate IT services - in this case, networking and security - from hardware provided by a single provider to a more open software model (see Figure 5).





COMMISSION

As we show in Figure 6, interoperable services (and, of particular interest to interconnection, programmable networking) enable a fertile ground to serve as the glue in complex digital business architectures. While such systems are complex, their design and implementation by the colocation provider reduces this burden to simply a service to be consumed by the enterprise. Once we can dynamically connect between a range of applications running on cloud platforms as well as colocated assets, and interconnect them via a programmable networking system under the watchful eye of an orchestrator (including, perhaps, a security service, pulling data from a SaaS solution), the value of proximity (i.e., the immediacy of such services) and the performance inherent in a high-speed switching fabric become apparent.

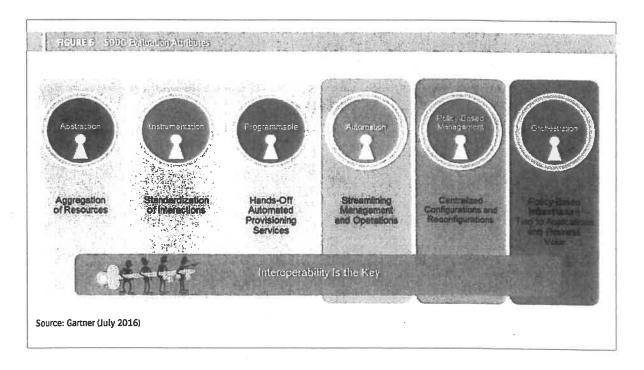
Future Promise: Data Center OS and Container Orchestration Frameworks Will Provide Coordination, Scheduling and Management of Applications Deployed Across Myriad Distributed Physical Servers and Service Providers

Containers will continue to become very broadly implemented in net-new applications and those "born in the cloud," continuing the advances in efficiency and decoupling of logical from physical workloads begun by virtualization. Containers decouple applications from infrastructure, requiring business application developers and operations professionals to think about their software in an application-service-oriented, rather than server-infrastructure-oriented,

way. While virtualization radically changed application hosting and deployment options by allowing workloads to be moved and replicated across physical hosts, containers will take this concept to the next level, enabling more efficient and evolved development models, as well as simple deployment of virtual machines and their applications. A future phase of deriving value from containers lies in the use of orchestration systems to serve as scheduling and deployment masters. As the market shakes out. and orchestration offerings such as Kubernetes, Apache Mesos or Docker Swarm gain traction, it is likely that data center interconnect fabricbased networking will be integrated at the base of the stack, in order to facilitate workload balancing, movement and distribution. In this way, the data center of the future becomes even more software-defined and dynamic.

Applicability of the Data Center Interconnection Model to Digital Business Requirements

Advanced digital business applications are likely to involve significant database use, disparate data sources and multiple cloud providers, with a need for very low latency between the systems. This is unlikely to be served through WAN links from enterprise to individual cloud providers, with switching taking place back on the enterprise's premises. What's needed is very high performance via a programmatic, secure and manageable fabric. Early trials of such technologies



between cloud providers and associated service providers have been very promising, but have demonstrated the need for speed. As we add distributed data sources and sinks, and the Internet of Things, a data center interconnection model in conjunction with edge data centers will be the most likely means of success.

A Contrarian View

There are a number of factors that, if they come to fruition, could inhibit or even prevent the data center interconnection model from becoming successful:

- The cost of the pipes from enterprises to colocation centers remains prohibitively expensive, blocking the three-tier model at the start (namely, local access).
- If cloud will not be a major factor in large enterprise solutions going forward, the need to connect multiple clouds to application logic or disparate data sources will be diminished.
- Organizations with no physical infrastructure needs may use cloud services connected via a managed service provider for their digital business interconnection.
- A lack of agreed-on and supported standards and/or interfaces for applications and cloud providers to interact with the fabric would drive fragmentation, with a smaller number of custom-made designs implemented by those with critical needs.
- A lack of gravity or availability of "peering targets" in the data center will make some centers less likely to gain momentum.
- A lack of attention to standard interfaces acceptable to cloud and service providers will leave some solutions handicapped.

- Any inability of the colocation providers to scale their interconnection resources to meet the demands of hundreds of thousands or even millions of users could make the model unusable by the very constituency it most appeals to — very large enterprises.
- If hurdles to implement security across the fabric and extended to the applications prove too complex, then enterprises may opt for other solutions.
- Timing limits market success. While there are providers and customers working on solutions today, it may be five years before the average enterprise makes significant use of such services. The extent to which early adopters can thrive in the interim without more fully monetizing such solutions will be critical. One encouraging sign is that, while enterprises may see the need for such technology to be a future capability, there may be enough immediate business from the hyperscale providers to fuel market growth.

Bottom Line

In the near term, simple topology and physical interconnection via fiber optics will provide compelling reasons to use data center interconnect as the integration point, or glue, for digital business. As data center interconnect fabrics become more prevalent, and their APIs standardized and written to, the dynamism and speed of these connections will foster the development of even more useful applications. Finally, as container orchestration systems develop affinity and capabilities in conjunction with data center interconnect fabrics over the next three to five years, the advantages of a center-centric model become overwhelming.

Source: Gartner Research Note: G00308712, Bob Gill, 28

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About Global Switch

The leading large-scale provider of MTDC space within our regions, we have over 3 million square feet strategically located close to key business districts in eight Tier 1 markets¹ across Europe and APAC. Our service offering is focussed on supporting leading international organisations who have substantial space and power requirements.

Our mission is to enable the global Ecosystem

We recognise ourselves as being part of the greater Ecosystem and there are plenty of other great MTDC providers doing a good job across the globe right now. We only operate in Tier 1 markets and understand that great interconnectivity between ourselves and other major MDTCs' locations is to the benefit of us all. The wider Ecosystem is bigger than any one provider or location, and the more of us doing a great job can only help to make progress easier and faster.

A longstanding focus on multi-tenant spaces

Our approach is somewhat different to many of the industry's prominent players. Even though we have a focus on the larger requirements, we have always been multi-tenant focussed as we recognised early on that the Ecosystem was at the core of our success. We own or have very long-term interests in all of our locations and have demonstrated our desire to continually invest substantially. We are very proud to be the highest credit-rated data centre company in the world, which in turn makes our cost of capital to make these investments low. Our new Hong Kong data centre, which will be the largest Carrier neutral data centre in Hong Kong is a very good demonstration of us executing on our business model.

A solid foundation for evolution and growth

The scale of our sites and continued investment and redevelopment means our Ecosystem stays fresh and relevant, and we become a truly longterm partner for many of our biggest customers. Our physical locations within cities, close to the key business districts and population centres, mean we provide a true low latency access platform. Our approach is also more bespoke and tailored than many others, with space fitted out to customer requirements and services such as fibre connectivity delivered in a way which fits their own model and security requirements. With the addition of new MMR facilities, structured cabling systems and subsea cable landing capabilities across our portfolio, we continue to set standards our customers recognise and value.

A policy of neutrality

We value the specialists and think our customers do too, so we have a completely open policy for Cloud and Connectivity service providers. We will not build a Cloud Exchange or Peering Exchange to simply tick some marketing boxes. We already have an extensive service provider community who deliver the services our customers require and right now we see new innovations every week. We control and maintain the physical infrastructure including the cross connect systems we operate, but we believe our service provider community is much better placed to offer intelligent interconnection and Cloud access services.

A thriving marketplace and a growing community

We look to promote our service provider community, and our customer portal now includes a built-in marketplace to allow our customers to advertise their services to each other. This window into our Ecosystem will enhance interconnection opportunities and set us up to be that digital hypermarket and a hub for the new generation of smart city infrastructure solutions. Our service providers have the focus, expertise and drive to move faster than we likely could and we will not be competing with them.

We already have a minimum of 10 accredited providers in each site, offering high capacity direct connectivity to the major Cloud providers, and this is growing weekly. We also have the majority of global Carriers and the important regional and metro players in each facility with access to wholesale levels of capacity and dark fibre. Our large customers include the big Internet companies, the global System Integrators and Enterprise organisations, and we have the scale to sustain them.

Our System Integrator community is especially important to the Ecosystem's development, as what used to be relatively closed communities within our sites are now opening up and keen to engage with other service providers. The smart System Integrators are now very focussed on what parts of the service stack they do well and want to focus on and are more open to pulling non-core services from outside. Rather than try and compete for cheap storage business or basic compute resources, they provide the service wrap which takes advantage of the Ecosystem they sit within to the benefit of their customers and ultimately themselves.

Global Switch is well-placed to tap into the incredible potential of the Ecosystem.

As we think about our business and how we are approaching the future, we recognise that the pace of change and competitive activity is only likely to increase but we also believe that our approach is unique:

- We maintain our position as the highest credit-rated data centre company in the world, which provides us a low cost of capital. We have a long-term investment horizon and see land ownership and building our own data centres as the cornerstone of our business.
- We build truly large-scale sites designed to accommodate multi-megawatt customer requirements. We also understand how proximity to central business districts and areas of high population density solve issues of latency so all our sites are located centrally in Tier 1 markets.
- We are already home to some of the world's leading international organisations from across all industry sectors. From the Internet and Cloud giants to the world's largest Enterprises and Systems Integrators, many of our customers trust us to support their businesses in multiple locations across the globe.
- Our data centres are some of the best connected in the world and are considered network dense from a fibre availability perspective. Our internal infrastructure, particularly our structured cabling systems supporting our customers' connectivity requirements, are built to scale and flex as our customers demand.

 We will continue to be both Carrier and Cloud neutral and help to promote our substantial service provider community. We will not build a Cloud or Peering Exchange which would compete with our customers and we will not obstruct or supress competition and opportunity.

We really do value our existing Ecosystems and realise how important they can become over the next few years. We should, however, still remember how early we are in this cycle. We believe that there will be a lot more change in the medium-term. Ultimately, we understand we are only a small part of this giant new globally interconnected services platform, but we think our approach is right and we hope to play an increasingly important role supporting our Ecosystems' future development and successes.

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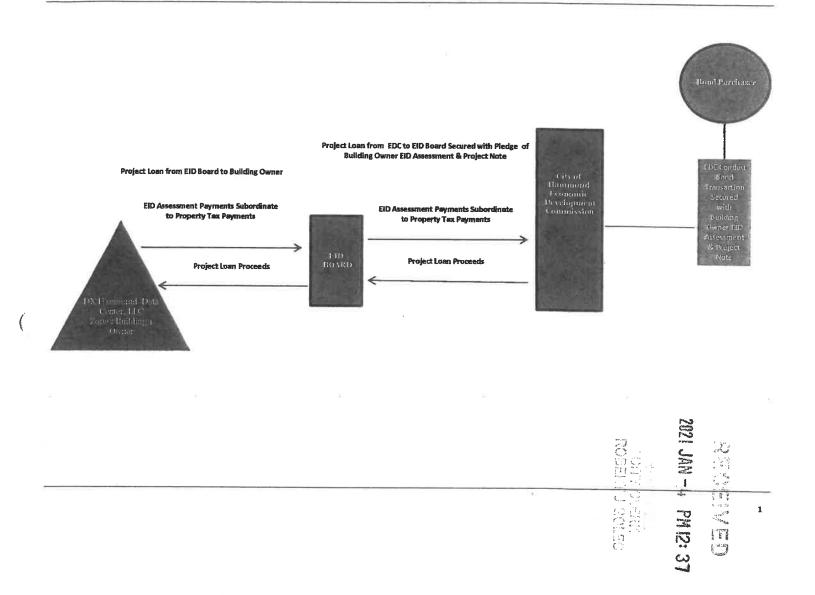
¹ Tier 1 markets are defined as principal metropolitan business, communication and internet hubs.

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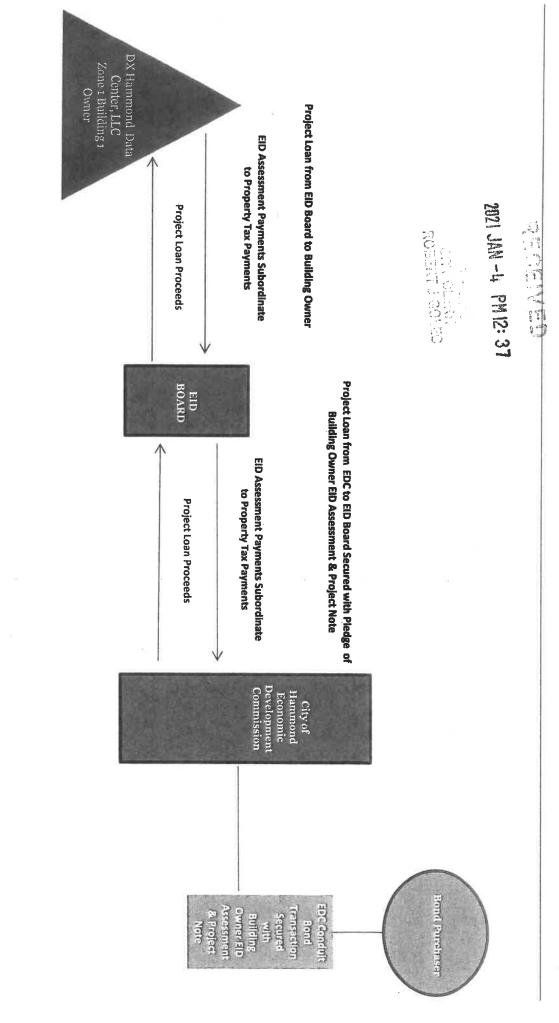
EXHIBIT M

EID BOND FINANCING STRUCTURE

EDC BOND SECURED WITH PLEDGE OF EID ASSESSMENT & NOTE FROM BUILDING OWNER



EDC BOND SECURED WITH PLEDGE OF EID ASSESSMENT & NOTE FROM BUILDING OWNER



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EXHIBIT N

PLAN OF APPLICATION AND ASSESSMENT FORMULA

Plan for the Application of Assessment Revenue to the Cost of the Economic Improvement Projects within each Zone

- Apply the Method of Determining Annual Special Assessment Amount. The amount of the assessment revenue collected from each Zone shall be based solely upon the amount of annual Special Assessments necessary for each Fiscal year to (a) cover the annual cost of the Board operating the EID District allocated by the Board to each Zone and (b) make the annual payment of all or a portion of the debt service and other related expenses on bonds issued to fund all or a portion of the cost of DX Hammond Economic Improvement Projects in such Zone as determined by the Board ("EID Bonds"), including but not limited to the payment of debt service for any bonds issued by the Board, HRC, HEDC or the City to support new DX Hammond Economic Improvement Projects made for a respective Zone (collectively referred as the "Method of Determining Annual Special Assessment Amount"). The annual cost of the Board operating the EID District shall be allocated to a Zone by the Board based on a Zone's percentage of the total remaining outstanding EID Bonds issued for the EID District as of January 1 of each year.
- Step 2. Apply the Method of Application of Special Assessment. The Special Assessment for a Zone for each Fiscal year shall only be applied and used to (a) cover the annual cost of the Board operating the EID District allocated to the Zone by the Board and (b) make the annual payment of all or a portion of the debt service and other related expenses on EID Bonds issued for the cost of design, development and construction of the Economic Improvement Projects in the Zone.

Formula Used for The Assessment of Benefits

- Step 1. Apply Method of Allocation of EID Bond Proceeds. The entire amount of proceeds from the EID Bonds issued to fund all or a portion of the cost of the DX Hammond Economic Improvement Projects in the Zone shall be allocated to the Zone in which such improvements are made after all expenses and costs are paid with respect to the issuance of such EID Bonds and compliance with the Act.
- Step 2. Method of Allocation of Annual Special Assessment. The annual Special Assessment for each Zone for each Fiscal Year shall be allocated to and paid by each real property owner in the Zone to the Board based upon the percentage of the total cost of the Economic Improvement Projects owned by the real property owner and funded by the EID Bonds in the Zone ("Total Owner Bond Funded Improvements") relative to the total cost of the Economic Improvement Projects funded by the EID Bonds in the Zone as determined by the Board as of each Zone EID bond closing date ("Total Zone Bond Funded Improvements") as set for in the EID Development Agreement for such projects funded by such EID Bonds

According the Formula Used for the Assessment of benefits shall be:

Total Zone Annual Special Assessment x (Total Owner Bond Funded Improvements/Total Zone Bond Funded Improvements) = Zone Owner Annual Special Assessment