BLACK CREEK INDUSTRIAL REIT IV INC. SUPPLEMENT NO. 16 DATED JANUARY 7, 2019 TO THE PROSPECTUS DATED APRIL 30, 2018

This prospectus supplement ("Supplement") is part of and should be read in conjunction with the prospectus of Black Creek Industrial REIT IV Inc., dated April 30, 2018 (the "Prospectus"), as supplemented by Supplement No. 10, dated September 7, 2018, Supplement No. 11, dated September 14, 2018, Supplement No. 12, dated October 5, 2018, Supplement No. 13, dated October 15, 2018, Supplement No. 14, dated November 15, 2018, and Supplement No. 15, dated December 13, 2018. Unless otherwise defined herein, capitalized terms used in this Supplement shall have the same meanings as in the Prospectus.

The purpose of this Supplement is to disclose:

- updated information regarding the Advisory Agreement; and
- updated information regarding the Expense Support Agreement.

ADVISORY AGREEMENT

1) The following updates the description of the Advisory Agreement and the reimbursement to the Advisor of certain expenses in the sections of the Prospectus titled "Prospectus Summary—Compensation to the Advisor and its Affiliates," "Estimated Use of Proceeds," "The Advisor and the Advisory Agreement—The Advisory Agreement," "Management Compensation," and "Plan of Distribution—Other Compensation":

We, the Operating Partnership, and the Advisor entered into the Amended and Restated Advisory Agreement (2018), dated as of June 13, 2018, or the "Advisory Agreement", pursuant to which the Advisor performs certain duties and responsibilities as a fiduciary of us and our stockholders. The agreement has a term of one year, subject to renewal for an unlimited number of one-year periods. As of January 1, 2019, the Advisory Agreement was amended to reflect the Advisor's agreement to extend the duration of its prior agreement to advance all of our organization and offering expenses on our behalf, excluding upfront selling commissions, dealer manager fees and distribution fees, through December 31, 2019 (the Advisor had previously agreed to advance these expenses through December 31, 2018).

We will reimburse the Advisor for all such advanced expenses ratably over the 60 months following December 31, 2019. Beginning January 1, 2020, we will reimburse the Advisor for any organization and offering expenses that it incurs on our behalf as and when incurred. After the termination of the primary offering and again after termination of the offering under our distribution reinvestment plan, the Advisor has agreed to reimburse us to the extent that the organization and offering expenses that we have incurred exceed 15% of our gross proceeds from the applicable offering. Any organization and offering expenses reimbursed by us which are deemed underwriting compensation will be subject to the 10% limit on underwriting compensation imposed by the Financial Industry Regulatory Authority.

Following the termination of the Advisory Agreement, in addition to other amounts payable to the Advisor, the Advisor will be entitled to receive, subject to limitations on repayment set forth in our charter, all unpaid reimbursements of expenses, including any organization and offering expenses that have not been reimbursed due to the Advisor's agreement to advance such expenses as described above.

2) The following updates the first risk factor included in Section C.2 of Supplement No. 10, which updates the Section of the Prospectus titled "Risk Factors—Risks Related to Investing in This Offering" beginning on page 54:

No rule or regulation requires that we calculate our NAV in a certain way, and our board of directors, including a majority of our independent directors, may adopt changes to the valuation procedures. In addition, because we do not include organization and offering expenses and acquisition expenses for which the Advisor has agreed to defer reimbursement in our calculation of NAV, our NAV will be higher during the period of the deferral than it would otherwise be but for the deferral by the Advisor and may decrease once such deferral ends.

There are no existing rules or regulatory bodies that specifically govern the manner in which we calculate our NAV. As a result, it is important that you pay particular attention to the specific methodologies and assumptions we will use to calculate our NAV. Other public REITs may use different methodologies or assumptions to determine their NAV. In addition, each year our board of directors, including a majority of our independent directors, will review the appropriateness of our valuation procedures and may, at any time, adopt changes to the valuation procedures. For example, we do not currently include any enterprise value or real estate acquisition costs in our assets calculated for purposes of our NAV. If we acquire real property assets as a portfolio, we may pay a premium over the amount that we would pay for the assets individually. In addition, we will not include organization and offering expenses (other than selling commissions, dealer manager fees and distribution fees) incurred through December 31, 2019 in our calculation of NAV for periods through December 31, 2019, but rather will amortize them to expense on a straight-line basis over the five years following December 31, 2019. Beginning January 1, 2020, all organization and offering expenses (other than selling commissions, dealer manager fees and distribution fees, which will affect the NAV as indicated below) incurred, as well as those expenses incurred prior to January 1, 2020 which will be amortized, will reduce NAV as part of our estimated income and expense accruals. We have adopted this methodology due to the Advisor's agreement to advance all such organization and offering expenses through December 31, 2019 and to be reimbursed by us for such advanced organization and offering expenses ratably over the sixty months following December 31, 2019. Similarly, for NAV calculation purposes, any acquisition expenses incurred or paid through December 31, 2019 which have not been reimbursed to the Advisor will not reduce NAV for periods through December 31, 2019, but rather will be amortized to expense on a straight-line basis over the eighteen months following December 31, 2019. Beginning January 1, 2020, all acquisition expenses incurred, as well as those expenses incurred prior to January 1, 2020, which will be amortized, will reduce NAV as part of our estimated income and expense accruals. We have adopted this methodology due to the Advisor's agreement to defer reimbursement of all or a portion of acquisition expenses incurred or paid on our behalf if, in a given month, the reimbursement of acquisition expenses to the Advisor would cause the NAV per share to be lower than the lesser of \$10.00 or the NAV per share calculated for the prior month, which we refer to as a shortfall. If the reimbursement would result in a shortfall, then the Advisor will defer reimbursement of acquisition expenses in the amount necessary to prevent a shortfall for such month. The Advisor will be reimbursed for any such unreimbursed acquisition expenses ratably over the eighteen months following December 31, 2019. Accordingly, during the period of the Advisor's deferral of the reimbursement of organization and offering expenses and acquisition expenses, our NAV will be higher than it would otherwise be but for the deferral, and may decrease once such deferral ends. Investors should consider this when determining to purchase shares of our common stock during the period of the deferral. As of June 30, 2018, the Advisor had incurred organization and offering expenses and acquisition expenses for which the Advisor had deferred reimbursement in an aggregate amount equal to \$7.2 million. Our board of directors may change these or other aspects of our valuation procedures, which changes may have an adverse effect on our NAV and the price at which you may sell shares to us under our share redemption program. See "Net Asset Value Calculation and Valuation Procedures" for more details regarding our valuation methodologies, assumptions and procedures.

EXPENSE SUPPORT AGREEMENT

1) On January 1, 2019, we, the Advisor and the Operating Partnership entered into the Second Amended and Restated Expense Support Agreement, or the "Expense Support Agreement". The following supersedes and replaces the description of the Expense Support Agreement in the sections of the Prospectus titled "Prospectus Summary—Compensation to the Advisor and Affiliates—Expense Support Agreement" and "Management Compensation—Expense Support Agreement":

Expense Support Agreement

We entered into an Expense Support Agreement with the Operating Partnership and the Advisor in October 2016, which was subsequently amended as of July 1, 2017 and January 1, 2019, or the "Expense Support Agreement." Pursuant to the Expense Support Agreement, the Advisor has agreed to defer certain fees and fund certain of our expenses, subject to the terms of the agreement. As amended, the Expense Support Agreement provides that, effective for each quarter commencing January 1, 2019 and ending June 30, 2020, the Advisor has agreed to defer payment of all or a portion of the fixed component of the advisory fee otherwise payable to it pursuant to the Advisory Agreement, if, for a particular quarter, the sum of (i) funds from operations, or "FFO", before taking into consideration any of the amounts paid to or by the Advisor pursuant to the Expense Support Agreement, as disclosed in our quarterly and annual reports, (ii) our accrued acquisition expenses (net of any acquisition expenses paid by us or on our behalf), (iii) the performance component of the advisory fee, (iv) any adjustment that has been made in calculating our FFO based on straight-line rent and amortization of above/below market leases, (v) organization and offering expenses reimbursed by us to the Advisor, and (vi) the fair market value gain amount, collectively, the "Expense Support Threshold," is less than the aggregate gross cash distributions declared for such quarter, assuming all such cash distributions had been declared at the aggregate distribution rate for Class I shares authorized by our board of directors for such quarter, or "Baseline Distributions." For purposes of calculating the Expense Support Threshold, the "fair market value gain amount" is an amount equal to up to the total net realized and unrealized fair market value gain on the Company's real property investments, derivative instruments, and debt for a quarter. The Advisor, in its reasonable discretion, shall determine the amount of such gain to be included in the calculation of the Expense Support Threshold each quarter; provided, that, in no event shall the Advisor determine to include an amount of such gain that causes our NAV per share, as calculated in accordance with our valuation procedures for such quarter, to decrease below the lesser of (i) \$10.00 per share and (ii) our most recently disclosed NAV per share. Further, for purposes of calculating the Expense Support Threshold, the amounts in each of subsections (ii), (iii), (iv), and (v) of the definition will be a positive number if it was a deduction in calculating our FFO for such quarter, and conversely will be a negative number if it was an addition in calculating our FFO for such quarter. For example, if straight-line rent and amortization of above/below-market leases was an addition in calculating our FFO, then it would be a negative number in calculating the Expense Support Threshold. The amount of the fixed component of the advisory fee that will be deferred for a particular quarter, if any, will equal the lesser of (i) the difference between the Expense Support Threshold and Baseline Distributions for such quarter and (ii) the entire fixed component of the advisory fee payable to the Advisor pursuant to the Advisory Agreement for such quarter.

In addition, if in a given calendar quarter, the Expense Support Threshold is less than Baseline Distributions for such quarter, and the deferred fixed component of the advisory fee is not sufficient to satisfy the shortfall for such quarter, or a "Deficiency," the Advisor will be required to fund certain of our or the Operating Partnership's expenses in an amount equal to such Deficiency. In no event will the aggregate of the fixed component of the advisory fee deferred by the Advisor and the Deficiency support payments made by the Advisor between October 2016 and the termination or expiration of the Expense Support Agreement exceed \$15,000,000, or the "Maximum Amount." Subject to certain conditions, the Advisor is entitled to reimbursement from us for any fixed

component of the advisory fee that is deferred and any Deficiency support payments that the Advisor makes pursuant to the Expense Support Agreement; provided, that, other than under certain circumstances in connection with a Liquidity Event (described below), we will not be obligated to reimburse the Advisor for any amount not reimbursed by us to the Advisor within four years after the quarter in which such reimbursable amount originated. For any quarter in which the Expense Support Threshold exceeds Baseline Distributions for that quarter, the Expense Support Agreement requires that we reimburse the Advisor in an amount equal to the lesser of (i) the difference between the Expense Support Threshold and Baseline Distributions and (ii) the sum of all outstanding reimbursable amounts.

In connection with our completion of a Liquidity Event, we will reimburse the Advisor for any outstanding reimbursable amounts that have not been repaid, including amounts that have not been reimbursed by us within four years after the quarter in which such reimbursable amount originated, or the "Outstanding Reimbursable Amounts"; provided that we will reimburse the Advisor in these circumstances only if the "Annual Total Return Amount" exceeds the "Total Return Hurdle" (each as described below); and provided further that the amount of the reimbursement shall equal the lesser of (i) the sum of all Outstanding Reimbursable Amounts, or (ii) the maximum amount permitted to be reimbursed without causing the Annual Total Return Amount to be less than the Total Return Hurdle. For purposes of the Expense Support Agreement, "Annual Total Return Amount" means (i) a cumulative, non-compounded pre-tax rate of return equal to (a) the sum of (x) the cumulative gross distributions per share declared by us since the date on which we first issued shares to third-party retail investors in our public offering, or the "Inception Date", and (y) the "Ending NAV," less \$10.00 (the deemed NAV on the Inception Date), (b) divided by \$10.00, (ii) divided by the number of years, including fractional years, between the Inception Date and the Liquidity Event. "Ending NAV" means the NAV per share determined in connection with a Liquidity Event. In connection with a listing, the Ending NAV will be an amount equal to the per share market value of the listed shares based upon the average closing price or, if the average closing price is not available, the average of the bid and asked prices, for the 30-day period beginning 90 days after such listing. Upon a Liquidity Event other than a listing, the Ending NAV shall be an amount equal to the per share consideration received by stockholders in connection with such Liquidity Event. For purposes of the Expense Support Agreement, "Total Return Hurdle" means a non-compounded, pre-tax annual rate of return equal to 5%. If Outstanding Reimbursable Amounts are payable to the Advisor, we will pay them prior to any payment of any other distribution to any other party in connection with a Liquidity Event. Further, in the event that we terminate the Advisory Agreement without cause and not in connection with a Liquidity Event, any reimbursable amounts that have not expired or been repaid pursuant to the terms of the Expense Support Agreement will become immediately due and payable to the Advisor. Our obligation to reimburse the Advisor will be non-interest bearing.

During the term of the Expense Support Agreement, we may be able to use cash flow from operations to pay distributions to our stockholders that would otherwise be used to pay the fixed component of the advisory fee or expenses. Although the Expense Support Agreement has an effective term through June 30, 2020, the Expense Support Agreement may be terminated prior thereto without cause or penalty by a majority of our independent directors upon 30 days' prior written notice to the Advisor. In addition, the Advisor's obligations under the Expense Support Agreement will immediately terminate upon the earlier to occur of (i) the termination or non-renewal of the Advisory Agreement, (ii) our delivery of notice to the Advisor of our intention to terminate or not renew the Advisory Agreement, (iii) our completion of a Liquidity Event or (iv) the time the Advisor has deferred, waived or paid the Maximum Amount. Further, the Advisor may elect to immediately terminate its obligations under the Expense Support Agreement if we modify the calculation of FFO. Except with respect to the early termination events described above, any obligation of the Advisor to make payments under the Expense Support Agreement with respect to the calendar quarter ending June 30, 2020 will remain operative and in full force and effect through the end of such quarter. When the Expense Support Agreement terminates, the Advisor will not have an obligation to defer fees or support expenses in order to support our cash distributions. Notwithstanding the foregoing, amounts

deferred or reimbursed pursuant to the Expense Support Agreement shall survive any termination or expiration and remain subject to the reimbursement terms described above without modification.

2) The following updates and replaces the second risk factor on page 63 of the Prospectus in the section titled "Risk Factors—Risks Related to Investing in This Offering":

We may have difficulty completely funding our distributions with funds provided by cash flows from operating activities; therefore, we may use cash flows from financing activities, which may include borrowings and net proceeds from primary shares sold in this offering, proceeds from the issuance of shares under our distribution reinvestment plan, cash resulting from a waiver or deferral of fees by the Advisor or from expense support provided by the Advisor, or other sources to fund distributions to our stockholders. The use of these sources to pay distributions and the ultimate repayment of any liabilities incurred could adversely impact our ability to pay distributions in future periods, decrease the amount of cash we have available for operations and new investments and/or potentially impact the value or result in dilution of your investment by creating future liabilities, reducing the return on your investment or otherwise.

Until the proceeds from this offering are fully invested, and from time to time thereafter, we may not generate sufficient cash flows from operating activities, as determined on a GAAP basis, to fully fund distributions to you. Therefore, particularly in the earlier part of this offering, we expect to fund distributions to our stockholders with cash flows from financing activities, which may include borrowings and net proceeds from primary shares sold in this offering, proceeds from the issuance of shares under our distribution reinvestment plan, cash resulting from a waiver or deferral of fees or expense reimbursements otherwise payable to the Advisor or its affiliates, cash resulting from the Advisor or its affiliates paying certain of our expenses, proceeds from the sales of assets. or from our cash balances. Our charter does not prohibit our use of such sources to fund distributions. We may be required to fund distributions from a combination of some of these sources if our investments fail to perform as anticipated, if expenses are greater than expected or as a result of numerous other factors. We have not established a cap on the amount of our distributions that may be paid from any of these sources. Using certain of these sources may result in a liability to us, which would require a future repayment. For the term of, and pursuant to, the Expense Support Agreement, we expect to rely on cash resulting from the deferral of the fixed component of the advisory fee and/or expense support from the Advisor to help fund our cash distributions in excess of certain thresholds defined in the agreement. See "Management Compensation — Expense Support Agreement." The Expense Support Agreement has an effective term through June 30, 2020, but may be terminated prior thereto without cause or penalty by a majority of our independent directors upon 30 days' written notice to the Advisor. Upon the earlier of the termination or expiration of the Expense Support Agreement or upon reaching the maximum support amount of \$15,000,000 as further described in the Expense Support Agreement, the Advisor will not be obligated to defer fees or otherwise support our distributions, which could adversely impact our ability to pay distributions. In addition, the Advisor's obligations under the Expense Support Agreement will immediately terminate upon the earlier to occur of (i) the termination or non-renewal of the Advisory Agreement, (ii) the delivery by us of notice to the Advisor of our intention to terminate or not renew the Advisory Agreement, (iii) our completion of a Liquidity Event or (iv) the time the Advisor has deferred or paid the maximum support amount of \$15,000,000. Further, the Advisor may elect to immediately terminate its obligations under the Expense Support Agreement if we modify our calculation of FFO. Except with respect to the early termination events described above, any obligation of the Advisor to make payments under the Expense Support Agreement with respect to the calendar quarter ending June 30, 2020 will remain operative and in full force and effect through the end of such quarter. To the extent the Expense Support Agreement is no longer available, we may need to borrow additional money under our debt financings to support distributions or we may determine to reduce distributions. For the nine months ended September 30, 2018 and for the year ended December 31, 2017, 100.0% and 100.0%, respectively, of our total gross distributions were funded from sources

other than cash flows from operating activities, as determined on a GAAP basis. Specifically, for the nine months ended September 30, 2018 and for the year ended December 31, 2017, 52.5% and 63.2%, respectively, of our total gross distributions were paid from cash provided by expense support from the Advisor and 47.5% and 36.8%, respectively, were funded with proceeds from the issuance of shares under our distribution reinvestment plan.

The use of the sources described above for distributions and the ultimate repayment of any liabilities incurred, as well as the payment of distributions in excess of our FFO, could adversely impact our ability to pay distributions in future periods, decrease the amount of cash we have available for operations and new investments and reduce your overall return and adversely impact and dilute the value of your investment in shares of our common stock. To the extent distributions in excess of current and accumulated earnings and profits (i) do not exceed a stockholder's adjusted basis in our stock, such distributions will not be taxable to a stockholder, but rather a stockholder's adjusted basis in our stock will be reduced; and (ii) exceed a stockholder's adjusted tax basis in our stock, such distributions will be included in income as long-term capital gain if the stockholder has held its shares for more than one year and otherwise as short-term capital gain.

In addition, the Advisor or its affiliates could choose to receive shares of our common stock or interests in the Operating Partnership in lieu of cash or deferred fees or the repayment of advances to which they are entitled, and the issuance of such securities may dilute your investment in shares of our common stock.