UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission file number 001-07782

A. Full title of the plan and address of the plan, if different from that of the issuer named below:

Parsons Employee Stock Ownership Plan

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

Parsons Corporation
5875 Trinity Parkway, #300
Centreville, VA 21120
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* Note: Schedules other than that listed above have been omitted because the information is otherwise disclosed, not applicable or not required by 29 CFR 2520.103-10 of the Department of Labor Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974.
Report of Independent Registered Public Accounting Firm

To the Plan Administrator and Plan Participants
Parsons Employee Stock Ownership Plan

Opinion on the Financial Statements
We have audited the accompanying statements of net assets available for benefits of Parsons Employee Stock Ownership Plan (the “Plan”) as of December 31, 2022 and 2021, and the related statement of changes in net assets available for benefits for the year ended December 31, 2022, and the related notes to the financial statements (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2022 and 2021, and the changes in net assets available for benefits for the year ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion
These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on the Plan's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Plan in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Supplemental Information
The supplemental information in the accompanying Schedule H, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2022 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental information. In forming our opinion on the supplemental information, we evaluated whether the supplemental information, including its form and content, is presented in conformity with the Department of Labor’s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental information is fairly stated in all material respects in relation to the financial statements as a whole.

/s/ Baker Tilly US, LLP
We have served as the Plan's auditor since 1999.
Irvine, California
June 26, 2023
## Parsons Employee Stock Ownership Plan

### Statements of Net Assets Available for Benefits

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments at fair value</td>
<td>$2,894,723,826</td>
<td>$2,313,011,365</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>141,236</td>
<td>18,710</td>
</tr>
<tr>
<td>Employer stock contribution receivable</td>
<td>54,950,951</td>
<td>54,899,168</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>2,949,816,013</td>
<td>2,367,929,243</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributions payable</td>
<td>1,582,305</td>
<td>1,302,827</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>1,582,305</td>
<td>1,302,827</td>
</tr>
<tr>
<td><strong>Net assets available for benefits</strong></td>
<td>$2,948,233,708</td>
<td>$2,366,626,416</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these financial statements.
### Parsons Employee Stock Ownership Plan

Statement of Changes in Net Assets Available for Benefits

Year Ended December 31, 2022

#### Additions:

<table>
<thead>
<tr>
<th>Contributions to the Plan:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash contributions</td>
<td>$883,389</td>
</tr>
<tr>
<td>Stock contributions</td>
<td>50,561,572</td>
</tr>
<tr>
<td><strong>Total contributions</strong></td>
<td><strong>51,444,961</strong></td>
</tr>
</tbody>
</table>

#### Investment Income:

<table>
<thead>
<tr>
<th>Unrealized appreciation in fair value of investments</th>
<th>843,986,200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest income</td>
<td>2,170</td>
</tr>
<tr>
<td><strong>Total investment income</strong></td>
<td><strong>843,988,370</strong></td>
</tr>
<tr>
<td><strong>Total additions</strong></td>
<td><strong>895,433,331</strong></td>
</tr>
</tbody>
</table>

#### Deductions:

<table>
<thead>
<tr>
<th>Distributions to participants</th>
<th>313,826,039</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total deductions</strong></td>
<td><strong>313,826,039</strong></td>
</tr>
</tbody>
</table>

#### Increase in net assets

581,607,292

#### Net assets available for benefits at beginning of year

2,366,626,416

#### Net assets available for benefits at end of year

2,948,233,708

The accompanying notes are an integral part of these financial statements.
1. Description of the Plan

The following description of the Parsons Employee Stock Ownership Plan (the “Plan”) provides only general information. Participants should refer to the Plan document for a more complete description of the Plan’s provisions.

General

The Plan, as originally established on December 28, 1974 and subsequently amended, is a noncontributory defined contribution stock bonus employee stock ownership plan (“ESOP”) covering regular full-time and part-time employees of Parsons Corporation (“Parsons” or “Company”) who are U.S. citizens or U.S. residents subject to United States Social Security Tax. In 1984, the Plan and the trust established thereunder (the “Trust”) acquired 100% of the outstanding common stock of Parsons.

For purposes of Section 402(a) of the Employee Retirement Income Security Act of 1974 (“ERISA”), the Named Fiduciary of the Plan is the Policy and Advisory Committee and the Plan Administrator is the Company. The Policy and Advisory Committee is made up of four or more individuals appointed by the Board of Directors of the Company, upon the recommendation of the Company’s Chief Executive Officer. Newport Trust Company (the “Trustee”) is a discretionary trustee with authority to control and manage the operation and administration of the Plan.

Regular full-time and part-time employees of designated domestic subsidiaries of Parsons become eligible to participate in the Plan at the beginning of the calendar year in which the employee first completes 1,000 hours of service within a plan year. Employees of nondomestic affiliates and any employee covered by a collective bargaining agreement with an affiliate in which there is evidence that retirement benefits were the subject of good faith bargaining are not eligible to participate.

Participation in the Plan continues until retirement, disability retirement, death, permanent disability or distribution of a participant’s balance due to severe financial hardship. The Plan is not a pension plan but is intended to provide deferred compensation at retirement.

Contributions

The amount of annual contributions is determined at the discretion of Parsons’ Board of Directors. The contributions made by Parsons during 2022 were in the form of cash and Parsons common stock. During the year ended December 31, 2022, cash contributions and stock contributions totaled $883,389 and $50,561,572, respectively. Contributions receivable amounted to $54,950,951 and $54,899,168 at December 31, 2022 and 2021, respectively.

Participant Accounts

A Plan account, as defined by the Plan terms, is maintained for each participant in the Plan and is credited annually with the participant’s share of Parsons’ stock that is made available for allocation arising from Parsons’ contribution to the Plan and forfeitures from terminated participants.

Shares of Parsons’ common stock are allocated to each participant’s account as of the end of the Plan year based on the ratio, which is the covered compensation each participant bears to total covered compensation of all participants for that Plan year, subject to certain limitations as defined in the Internal Revenue Code (“IRC”).

The Plan held 62,588,623 and 68,737,336 shares of Parsons common stock as of December 31, 2022 and 2021, respectively. These shares represent approximately 60% and 66% of Parsons stock as of December 31, 2022 and 2021, respectively. The number of shares of common stock are certified by Newport Trust Company. Such stock was valued at $46.25 per share and $33.65 per share as of December 31, 2022 and 2021, respectively, based on the public market prices.
**Vesting**

Participants' vesting in the Company’s contributions is based on years of credited service, which includes plan years during which the participant has completed at least 1,000 hours of service. In addition, credited service includes the number of years of service prior to the effective date of an employee's participation in the Plan for which the participant received credit for vesting purposes under a predecessor plan or, with Board of Directors' approval, for service with an acquired employer company. These vesting requirements do not apply to amounts credited to the participant's account attributable to allocated cash dividends on Parsons common stock, which are not subject to forfeiture.

The vesting schedule in the Parsons ESOP was amended effective January 1, 2020. For participant accounts which were not 100% vested, the vested account balance increased according to the new schedule if the participant worked one (1) hour of service on or after January 1, 2020. The vested percentage increases one level on the vesting schedule for each Plan Year in which a participant worked at least 1,000 hours. If a participant did not work at least one (1) hour of service on or after January 1, 2020, their vested account balance will remain unchanged and their account is subject to the vesting schedule in effect at the time of employment separation.

<table>
<thead>
<tr>
<th>Years of Service</th>
<th>Vesting %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year, but less than 2 years</td>
<td>33.33%</td>
</tr>
<tr>
<td>2 years, but less than 3 years</td>
<td>66.67%</td>
</tr>
<tr>
<td>3 or more years</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

In addition, upon attainment of normal retirement age (age 65) or early retirement age as defined, or upon death during active employment or termination of employment due to permanent disability, the accounts of the participant become 100% vested.

**Forfeitures**

Forfeited balances relating to unvested accounts are annually reallocated to the accounts of the remaining active participants employed by Parsons. Forfeitures may occur upon distribution or when a terminated employee incurs five consecutive breaks-in-service. A break-in-service occurs if fewer than 501 hours of service are performed in a Plan year. If payments remain unclaimed after five years from the date of distribution, any unclaimed payments are forfeited and are subject to reclamation by the active participants. During the years ended December 31, 2022 and 2021, 166,272 shares and 192,132 shares, respectively, were forfeited and reallocated to active participants.

**Diversification**

Diversification is offered to participants close to retirement so that they may have the opportunity to move part of the value of their investment in Company common stock into investments which are more diversified. Prior to January 1, 2021, participants who were at least age 55, with at least 10 years of participation in the Plan, could elect to diversify a portion of their account. Diversification was offered to each eligible participant over a 6-year period. In each of the first 5 years, a participant could diversify up to 25% of the number of post – 1986 shares allocated to his or her account, less any shares previously diversified. In the sixth year, the percentage changes to 50%.

In December 2020, the board of directors approved an amendment to the Plan to provide greater diversification rights to participants. The amendment provides that, with respect to all diversifications elected or processed after January 1, 2021, the definition of a qualified participant shall mean a participant who has attained the age of 50 and who has completed at least three years of participation in the Plan and other criteria. Each qualified participant shall generally be permitted to direct the ESOP as to the diversification of 50% of the value of the eligible vested portion of the participant's ESOP account.

**Payment of Benefits**

Participants of the Plan who have terminated employment may request distributions under the Plan upon attaining either normal or early retirement age, death, permanent disability, or a finding of severe financial
hardship. Participants’ interests in their Plan accounts are generally distributed in stock with any fractional shares being paid in cash.

On March 25, 2019, the Board amended the Plan effective immediately to require that distributions to eligible participants with account balances equal to or greater than $20,001 be taken in annual installments as opposed to a single lump sum distribution per the following determination:

<table>
<thead>
<tr>
<th>Account Balance at Valuation Date</th>
<th>Participants who are eligible may take distributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $20,001</td>
<td>Receives distribution in a lump sum and may not elect installments</td>
</tr>
<tr>
<td>Equal to or greater than $20,001 but less than or equal to $40,000</td>
<td>Receives distribution in two installments</td>
</tr>
<tr>
<td>Exceeds $40,000</td>
<td>Receives distribution over either a three or five-year period, as elected by the employee</td>
</tr>
</tbody>
</table>

In January 2021, the Board amended the Plan effective March 1, 2021, changing the thresholds for annual installments to the following:

<table>
<thead>
<tr>
<th>Account Balance at Valuation Date</th>
<th>Participants who are eligible may take distributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $500,001</td>
<td>Receives distribution in a lump sum and may not elect installments</td>
</tr>
<tr>
<td>Equal to or greater than $500,001 but less than or equal to $750,000</td>
<td>Receives distribution in two installments</td>
</tr>
<tr>
<td>Exceeds $750,000</td>
<td>Receives distribution over either a three or five-year period, as elected by the employee</td>
</tr>
</tbody>
</table>

In April 2022, the board of directors approved an amendment providing for lump sum distributions to participants and removing the annual installments. Annual diversification elections and five-year vested termination distributions are not impacted by this amendment and will still occur annually and over installments as outlined in the Plan.

**Voting Rights**

The Trustee votes Parsons shares allocated to the respective accounts of participants in accordance with the respective written directions of participants or for which no instructions have been received, except that in the case of certain corporate reorganizations, shares allocated subsequent to December 31, 1979 cannot be voted by the Trustee in the absence of instructions. The Policy and Advisory Committee votes shares which have not been allocated to participants’ accounts.

**Plan Termination**

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to provisions of ERISA. In the event of Plan termination, participants will become 100% vested in their accounts with respect to Company contributions, and the assets of the Plan will be allocated to the participants, less expenses of administration and liquidation, in accordance with the terms of the Plan and ERISA regulations and requirements.

2. **Summary of Significant Accounting Policies**

**Basis of Accounting**

The accompanying financial statements have been prepared on the accrual basis of accounting and in conformity with accounting principles generally accepted in the United States of America ("GAAP").
Use of Estimates
The preparation of the financial statements and related supplemental schedule in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions to and deductions from net assets during the reporting period. Actual results could differ from these estimates.

Cash and Cash Equivalents
The Plan considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents.

Payment of Benefits
Benefits are recorded when paid. Benefits of $1,582,305 and $1,302,827 were in process but not paid as of December 31, 2022 and 2021, respectively.

Investment Valuation and Income Recognition
The shares of Company common stock are valued at fair value based on the closing market price of the New York Stock Exchange on the last day of the Plan year. See Note 5 for discussion of fair value measurements. As defined in the Plan, additions to and deductions from Trust net assets include interest income, dividends and other income or expenses attributable to Trust assets. The change in the difference between fair value of investments at the beginning and the end of the period is reflected as net unrealized appreciation or depreciation in fair value of investments in the statement of changes in net assets available for benefits.

Expenses
Certain expenses of maintaining the Plan are paid by the Plan, unless otherwise paid by the Company. Expenses that are paid by the Company are excluded from these financial statements. For the year ended December 31, 2022, all trustee costs of the Plan were paid by the Company. See Note 6 for additional information.

Risks and Uncertainties
The Plan investments consist of the Company's common stock, which is exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with the investment in the common stock, it is reasonably possible that changes in the value of the common stock will occur in the near term and that such changes could materially affect the amounts reported in the statement of net assets available for benefits.

3. Income Tax Status
The Internal Revenue Service has determined and informed the Company by a letter dated September 25, 2013, that the Plan and related Trust are designed in accordance with applicable sections of the IRC. Although the Plan has been amended since receiving the determination letter, the Policy and Advisory Committee and the Plan's tax counsel believe that the Plan is designed, and is currently being operated, in compliance with the applicable requirements of the IRC and, therefore, believe that the Plan is qualified, and the related Trust is tax-exempt.

GAAP requires Plan management to evaluate tax positions taken by the plan and recognize a tax liability if the plan has taken an uncertain position that more likely than not would not be sustained upon examination by the applicable taxing authorities. The Plan is subject to routine audits by taxing jurisdictions and an IRS audit of the 2019 plan year is in progress.
4. Administration of Plan Assets

As of December 31, 2022 and 2021, the Plan's assets, which consisted principally of Parsons common stock, were held by the Trustee of the Plan. Respective Company contributions are held and managed by the Trustee, which invests cash received and interest income and makes distributions to participants. Certain administrative functions are performed by the officers and employees of Parsons. No such officer or employee receives compensation from the Plan. No administrative expenses were paid by the Plan for the year ended December 31, 2022.

5. Fair Value Measurements

The Plan accounts for investments in accordance with Accounting Standards Codification ("ASC") 820, Fair Value Measurement. ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. ASC 820 establishes a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level 1 – Quoted prices in active markets for identical assets or liabilities.
Level 2 – Inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.
Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The Plan's management bases the value of the Trust's holding upon the public market price of Parsons' stock as traded on the NYSE under the symbol PSN.

The method described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while management believes its valuation method is appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2022 and 2021. The assets are classified in accordance with the fair value hierarchy set forth in ASC 820:

### December 31, 2022:

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parsons Corporation stock</td>
<td>$2,894,723,826</td>
<td>$—</td>
<td>$—</td>
<td>$2,894,723,826</td>
</tr>
<tr>
<td>Total assets at fair value</td>
<td>$2,894,723,826</td>
<td>$—</td>
<td>$—</td>
<td>$2,894,723,826</td>
</tr>
</tbody>
</table>

### December 31, 2021:

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parsons Corporation stock</td>
<td>$2,313,011,365</td>
<td>$—</td>
<td>$—</td>
<td>$2,313,011,365</td>
</tr>
<tr>
<td>Total assets at fair value</td>
<td>$2,313,011,365</td>
<td>$—</td>
<td>$—</td>
<td>$2,313,011,365</td>
</tr>
</tbody>
</table>

6. Party-In-Interest Transactions

Parties-in-interest (as defined by ERISA) may perform services or have fiduciary responsibilities to the Plan. The party-in-interest transactions discussed below qualify for an exemption from the party-in-interest transaction prohibitions of ERISA.
The Company incurred certain administrative expenses on behalf of the Plan totaling $986,606 for the year ended December 31, 2022.

7. **Subsequent Events**

The Policy and Advisory Committee evaluated subsequent events through the date of this report. The Policy and Advisory Committee has concluded no events have occurred subsequent to December 31, 2022 that require consideration as adjustments to or disclosure in these financial statements.
# Supplemental Schedule

Parsons Employee Stock Ownership Plan

SCHEDULE H, LINE 4i – Schedule of assets (Held at End of Year)

December 31, 2022

Employer I.D. 95-3232481 & 80-0007608

Plan Number 105

<table>
<thead>
<tr>
<th>(a)</th>
<th>(b) Identity of Issuer, Borrower, Lessor or Similar Party</th>
<th>(c) Description of Investment</th>
<th>(d) Cost</th>
<th>(e) Current Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Parsons Corporation stock</td>
<td>62,588,623 shares of Parsons Corporation common stock</td>
<td>$637,595,649</td>
<td>$2,894,723,826</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$637,595,649</td>
<td>$2,894,723,826</td>
</tr>
</tbody>
</table>

* Denotes party-in-interest for which a statutory exemption exists

See accompanying Report of Independent Registered Public Accounting Firm

12
Pursuant to the requirements of the Securities Exchange Act of 1934, the Policy and Advisory Committee has duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

Parsons Employee Stock Ownership Plan

Date: June 26, 2023

By: /s/ Paul Walker-Lanz
Paul Walker-Lanz
Chair, Policy and Advisory Committee
Parsons Corporation
We consent to the incorporation by reference in Registration Statement (No. 333-231387) on Form S-8 of Parsons Corporation of our report dated June 26, 2023, with respect to the statements of net assets available for benefits as of December 31, 2022 and 2021, the related statement of changes in net assets available for benefits for the year ended December 31, 2022, and the supplemental schedule, Schedule H, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2022, of Parsons Corporation Employee Stock Ownership Plan, which appears in this Annual Report on Form 11-K of Parsons Corporation Employee Stock Ownership Plan for the year ended December 31, 2022.

/s/ Baker Tilly US, LLP

Irvine, California
June 26, 2023