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**GRAND JUNCTION CITY COUNCIL
TUESDAY, JANUARY 14, 2025
SPECIAL WORKSHOP, 5:30 PM
LINCOLN PARK HOSPITALITY SUITE
1307 NORTH AVENUE**

1. Discussion Topics

- a. Impact Fee and Linkage Fee Study Discussion

2. City Council Communication

An unstructured time for Councilmembers to discuss current matters, share ideas for possible future consideration by Council, and provide information from board & commission participation.

3. Next Workshop Topics

4. Other Business

What is the purpose of a Workshop?

The purpose of the Workshop is to facilitate City Council discussion through analyzing information, studying issues, and clarifying problems. The less formal setting of the Workshop promotes conversation regarding items and topics that may be considered at a future City Council meeting.

How can I provide my input about a topic on tonight's Workshop agenda?

Individuals wishing to provide input about Workshop topics can:

1. Send input by emailing a City Council member ([Council email addresses](#)) or by calling 970-244-1504.
2. Provide information to the City Manager (citymanager@gjcity.org) for dissemination to the City Council. If your information is submitted prior to 3 p.m. on the date of the Workshop, copies will be provided to Council that evening. Information provided after 3 p.m. will be disseminated the next business day.

3. Attend a Regular Council Meeting (generally held the 1st and 3rd Wednesdays of each month at 6 p.m. at City Hall) and provide comments during “Public Comments.”
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Grand Junction City Council

Workshop Session

Item #1.a.

Meeting Date: January 14, 2025
Presented By: TischlerBise, Mike Bennett
Department: Community Development
Submitted By: Tamra Allen, Community Development Director

Information

SUBJECT:

Impact Fee and Linkage Fee Study Discussion

EXECUTIVE SUMMARY:

Staff has been working with the council-designated Impact Fee Stakeholder group throughout the process of the impact fee update study and linkage fee study process. This group has requested a workshop be held with City Council to discuss their concerns and feedback on the draft fees. This workshop is intended to provide a venue for discussion and feedback between City Council and the Impact Fee Stakeholder group.

The Grand Junction Municipal Code ("Code" or "GJMC") requires the City to update its impact fee study once every five years. The City's last fee study for transportation, police, fire, parks, and municipal facilities was completed in 2019. The City has contracted with TischlerBise to update its fee study and create a nexus study for an affordable housing linkage fee. TischlerBise has completed the draft Impact Fee Study Update, as well as the Linkage Fee study, both of which were presented to the City Council at the December 16 workshop and to the stakeholders on December 2, 2024.

BACKGROUND OR DETAILED INFORMATION:

TischlerBise is a fiscal, economic, and planning consulting firm specializing in fiscal/economic impact analysis, impact fees, user fees, market feasibility, infrastructure financing studies, and related revenue strategies. The firm has been providing consulting services to public agencies for more than 30 years and has prepared more than 1,000 impact fee/infrastructure financing studies in that time.

Impact fees are simple in concept but complex in delivery. Generally, the jurisdiction imposing the fee must:

- (1) identify the purpose of the fee,

- (2) identify the use to which the fee is to be put,
- (3) show a reasonable relationship between the fee's use and the type of development project, and
- (4) account for and spend the fees collected only for the purpose(s) used in calculating the fee.

Reduced to its simplest terms, the process of calculating impact fees involves the following two steps:

1. Determine the cost of development-related capital improvements, and
2. Allocate those costs equitably to various types of development.

Code section 21.02.070(a) Development Impact Fees, provides that the impact fees described in this section (Transportation, Police, Fire, and Parks) and the administrative procedures of this section shall be reviewed at least once every five years by an independent consultant, as directed by the City Manager, to ensure that (i) the demand and cost assumptions underlying the impact fees are still valid, (ii) the resulting impact fees do not exceed the actual costs of constructing capital facilities that are of the type for which the impact fees are paid and that are required to serve new impact-generating development, (iii) the monies collected or to be collected in each impact account have been and are expected to be spent for capital facilities for which the impact fees were paid, and (iv) the capital facilities for which the impact fees are to be used will benefit the new development paying the impact fees. The City's last fee study for transportation, police, fire, parks, and municipal facilities was completed in 2019.

The City has contracted with TischlerBise to update its fee study and create a nexus study for an affordable housing linkage fee - a strategy from the adopted 2021 Housing Strategy that was readopted as a strategy in the updated 2024 Housing Strategy.

The Stakeholder Group met in July, August (fire, police, municipal facilities), November (linkage fee), and December (transportation and parks/parkland), and four community meetings were also held in July, August, November, and December. The stakeholder group has requested to meet in a workshop with City Council to discuss the fees.

Information about the fee study including all fees have been made available throughout the process on <https://engagegj.org/impact-fees-study>.

FISCAL IMPACT:

The adoption and implementation of growth-related impact fees are a fiscal policy of the City. Fiscal impact will be considered at a future date and will be dependent upon the Council's consideration of an updated fee schedule. The City has contracted with TischlerBise to perform the fee study update and linkage fee study. The consultant was selected through a competitive RFP process and services have been retained for a fee not to exceed \$149,810.00.

SUGGESTED ACTION:

Discussion and Direction

Attachments

- 1. impact fee code section
- 2. Impact Fee Stakeholder List
- 3. Grand Junction Housing Linkage Fee_Draft_20241213
- 4. Grand Junction CO Dev Impact Fee Study 12.12.24

- (i) Before making any construction or alteration to a site or structure, such owner shall make application to the City for a Certificate of Appropriateness. The Director shall review such application for compliance with the Guidelines and Standards and make an initial determination and recommendation to the Board. The Director may include in that recommendation any conditions deemed appropriate to comply with the Guidelines and Standards and with the Zoning and Development Code.
- (ii) The Board shall have jurisdiction to review City staff recommendations and to decide applications for Certificates of Appropriateness at a public hearing. The Board may include any conditions of approval deemed appropriate for compliance with the Guidelines and Standards. No owner shall construct or alter a structure or site in the District without first obtaining a Certificate of Appropriateness from the Board.
- (iii) A decision of the Board may be appealed to City Council within 30 days of the issuance of the decision. Appeals to City Council shall be de novo.
- (iv) All reviews pursuant to this subsection (2) shall determine if the new construction or alteration is compatible with the historic designation as provided in the North Seventh Street Historic Residential District Guidelines and Standards. In reviewing an application, consideration shall be given to design, siting, form, texture, setbacks, orientation, alignment, finish, material, scale, mass, height, and overall visual compatibility, according to and with reference to the applicable Guidelines and Standards of the North Seventh Street Historic Residential District. For purposes of this section, the term “compatible” shall mean consistent with, harmonious with and/or enhancing the mixture of complementary architectural styles either of the architecture of an individual structure or the character of the surrounding structures.

(h) Revocation of Designation

- (1) If a building or special feature on a designated site has been altered in such a way so as to negate the features necessary to retain designation, the owner may apply to the Historic Board for a revocation of the designation or the Historic Board shall recommend revocation of the designation to the City Council in the absence of the owner’s application to do so.
- (2) If a designated structure is moved or demolished, the designation shall, without notice and without Historic Board recommendation, automatically terminate. If moved, a new application for designation at the new location must be made in order for designation to be considered.
- (3) Upon the City Council’s decision to revoke a designation, the Director shall cause a revocation notice to be sent to the property owner.

21.02.070 DEVELOPMENT FEES

(a) Development Impact Fees

(1) Title

This section shall be known and may be cited as the “Grand Junction, Colorado, Impact Fee Ordinance” or “Impact Fee Ordinance.”

(2) Authority

The City has the authority to adopt this section pursuant to Article XX, § 6 of the Colorado State Constitution, the City's home rule charter, the City's general police powers, and other laws of the State of Colorado.

(3) Application

This section shall apply to all development within the territorial limits of the City, except development exempted pursuant to GJMC 21.02.070(a)(5)(ii).

(4) Purpose

- (i) The intent of this section is to ensure that new development pays a proportionate share of the cost of city parks and recreation, fire, police, and transportation capital facilities.
- (ii) It is the intent of this section that the impact fees imposed on new development are no greater than necessary to defray the impacts directly related to proposed new development.
- (iii) Nothing in this section shall restrict the City from requiring an applicant for a development approval to construct reasonable capital facility improvements designed and intended to serve the needs of an applicant's project, whether or not such capital facility improvements are of a type for which credits are available under GJMC 21.02.070(a)(6), Credits.

(5) Development Impact Fees to Be Imposed

(i) Fee Obligation, Payment, and Deposit

(A) Obligation to Pay and Time of Payment

Any person who causes the commencement of impact-generating development, except those exempted pursuant to GJMC 21.02.070(a)(5)(ii) shall be obligated to pay impact fees pursuant to the terms of this section. The obligation to pay the impact fees shall run with the land. The amount of the impact fees shall be determined in accordance with GJMC 21.02.070(a)(5)(iii) and the fee schedule in effect at the time of issuance of a Planning Clearance and paid to the Director at the time of issuance of a Planning Clearance. If any credits are due pursuant to GJMC 21.02.070(a)(6) those shall be determined prior to the issuance of a Planning Clearance and payment of the impact fees.

(B) Fees Promptly Deposited into City Accounting Funds

All monies paid by a fee payer pursuant to this section shall be identified as impact fees and shall be promptly deposited in the appropriate City impact fee accounting funds established and described in GJMC 21.02.070(a)(7).

(C) Extension of Previously Issued Development Approval

If the fee payer is applying for an extension of a development approval issued prior to January 1, 2020, the impact fees required to be paid shall be the net increase between the impact fees applicable at the time of the current permit

extension application and any impact fees previously paid pursuant to this section, and shall include any impact fees established subsequent to such prior payment.

(D) Fee Based on Approved Development

If the Planning Clearance is for less floor area than the entire development approved pursuant to the development approval, the fee shall be computed separately for the floor area of development covered by the Planning Clearance, and with reference to the use categories applicable to such development covered by the Planning Clearance.

(E) Permit for Change in Use, Expansion, Redevelopment, Modification

If the fee payer is applying for a Planning Clearance to allow for a change of use or for the expansion, redevelopment, or modification of an existing development, the impact fees required to be paid shall be based on the net increase in the impact fees for the new use as compared to the previous use and actual fee paid for the previous use, and shall include any impact fees established subsequent to such prior payment.

(F) Prior Conditions and/or Agreements

Any person who prior to January 1, 2020, has agreed in writing with the City, as a condition of permit approval, to pay an impact fee shall be responsible for the payment of the impact fees under the terms of such agreement, and the payment of the impact fees may be offset against any impact fees due pursuant to the terms of this section.

(G) Time of Submittal

For nonresidential and multifamily development (excluding townhomes, duplexes, and condominium residence(s)) the fee shall be calculated as of the submission of a complete application and construction commences within two years of approval. Should construction fail to commence within two years, the applicant shall pay those fees in place at the time of issuance of a Planning Clearance.

(ii) Exemptions

The following types of development shall be exempt from payment of impact fees. Any claim for exemption shall be made no later than the time when the applicant applies for the first Planning Clearance. Any claim for exemption not made at or before that time shall be waived. The Director shall determine the validity of any claim for exemption pursuant to the standards set forth below.

(A) Replacing Existing Residential Unit with New Unit

Reconstruction, expansion, alteration, or replacement of a previously existing residential unit that does not create any additional residential units.

(B) New Impact-Generating Development Creates No Greater Demand than Previous Development.

New impact-generating development that the fee payer can demonstrate will create no greater demand over and above that produced by the existing use or development.

(C) Building after Fire or Other Catastrophe

Rebuilding the same amount of floor space of a structure that was destroyed by fire or other catastrophe.

(D) Accessory Structures

Construction of unoccupied accessory structures related to a residential unit.

(E) Previous Payment of Same Amount of Impact Fees

Impact-generating development for which an impact fee was previously paid in an amount that equals or exceeds the impact fee that would be required by this section.

(F) Government

Development by the federal government, the state, school district, county or the City.

(G) Complete Development Application Approved Prior to Effective Date of Chapter

For development for which a complete application for a Planning Clearance was approved prior to January 1, 2020; and for nonresidential and multifamily development for which a complete application was submitted prior to January 1, 2020, so long as construction commences by January 1, 2022, the required fees shall be those in effect at time of submittal.

(H) Small Additions and Renovations for Residential Uses

Construction of an addition to an existing dwelling unit of 500 square feet or less, or expansion of finished space for an existing dwelling unit of 500 square feet or less. This exemption shall only be used one time for each dwelling unit and does not apply to accessory dwelling units.

(iii) Calculation of Amount of Impact Fees

(A) Impact Fee Schedule

Except for those electing to pay impact fees pursuant to GJMC 21.02.070(a)(5)(iii)(B), the impact fees applicable to the impact-generating development shall be as determined by the impact fee schedule, which is hereby adopted and incorporated herein. The impact fee schedules are based on the impact fee studies. It applies to classes of land uses within the City, differentiates between types of land uses, and is intended to defray the projected impacts caused by proposed new development on city capital facilities. The determination of the land use category(ies) in the impact fee schedules that are applicable to

impact-generating development shall be made by the Director with reference to the impact fee studies and the methodologies therein; the then-current edition of the ITE Trip Generation Manual, published by the Institute of Traffic Engineers; the City zoning and development code; the then-current land use approvals for the development; and any additional criteria set forth in duly promulgated administrative rules.

a. Annual Adjustment of Impact Fees to Reflect Effects of Inflation

The impact fee schedule shall be adjusted annually and/or biannually consistent with the impact fee study. Commencing on January 1, 2023, and on January 1st of each subsequent year, each impact fee amount set forth in the impact fee schedule shall be adjusted for inflation, as follows:

1. For transportation impact fees, the fees shall be adjusted for inflation based on the latest 10-year average of the Colorado Department of Transportation Construction Cost Index, published quarterly by CDOT.
2. For fire, police, and parks the fees shall be adjusted for inflation based on the most recent Construction Cost Index published by Engineering News Record.
3. The adjusted impact fee schedule shall become effective immediately upon calculation and certification by the City Manager and shall not require additional action by the City Council to be effective.

b. Impact-Generating Development Not Listed in the Impact Fee Schedule

If the proposed impact-generating development is of a type not listed in the impact fee schedule, then the impact fees applicable are those of the most nearly comparable type of land use. The determination of the most nearly comparable type of land use shall be made by the Director with reference to the impact fee study and City code.

c. Mix of Uses

If the proposed impact-generating development includes a mix of those uses listed in the impact fee schedule, then the impact fees shall be determined by adding the impact fees that would be payable for each use as if it was a freestanding use pursuant to the impact fee schedule.

(B) Independent Fee Calculation Study

In lieu of calculating the amount(s) of impact fees by reference to the impact fee schedule, a fee payer may request that the amount of the required impact fee be determined by reference to an independent fee calculation study.

a. Preparation of Independent Fee Calculation Study

If a fee payer requests the use of an independent fee calculation study, the fee payer shall be responsible for retaining a qualified professional (as

determined by the Director) to prepare the independent fee calculation study that complies with the requirements of this section, at the fee payer's expense.

b. General Parameters for Independent Fee Calculation Study

Each independent fee calculation study shall be based on the same level of service standards and unit costs for the capital facilities used in the impact fee study and shall document the relevant methodologies and assumptions used.

c. Procedure

1. An independent fee calculation study shall be initiated by submitting an application to the Director together with an application fee to defray the costs associated with the review of the independent fee calculation study.
2. The Director shall determine if the application is complete. If it is determined the application is not complete, a written statement outlining the deficiencies shall be sent by mail to the person submitting the application. The Director shall take no further action on the application until it is complete.
3. When it is determined the application is complete, the application shall be reviewed by the Director and a written decision rendered on whether the impact fees should be modified, and, if so, what the amount should be, based on the standards in GJMC 21.02.070(a)(6)(i).

d. Standards

If, on the basis of generally recognized principles of impact analysis, the Director determines the data, demand information and assumptions used by the applicant to calculate the impact fees in the independent fee calculation study more accurately measure the proposed impact-generating development's impact on the appropriate capital facilities, the impact fees determined in the independent fee calculation study shall be deemed the impact fees due and owing for the proposed development. The fee adjustment shall be set forth in a fee agreement. If the independent fee calculation study fails to satisfy these requirements, the impact fees applied shall be the impact fees established in the impact fee schedule.

(6) Credits

(i) Standards

(A) General

Any person causing the commencement of impact-generating development may apply for credit against impact fees otherwise due, up to but not exceeding the full obligation of impact fees proposed to be paid pursuant to the provisions of

this section, for any contributions or construction (as determined appropriate by the Director) accepted in writing by the City for capital facilities. Credits against impact fees shall be provided only for that impact fee for which the fee is collected.

(B) Valuation of Credits

a. Construction

Credit for construction of capital facilities shall be valued by the City based on complete engineering drawings, specifications, and construction costs estimates submitted by the fee payer to the City. The Director shall determine the amount of credit due, if any, based on the information submitted, or, if he/she determines the information is inaccurate or unreliable, then on alternative engineering or construction costs determined by and acceptable to the Director.

b. Contributions

Contributions for capital facilities shall be based on the value of the contribution or payment at the time it is made to the City.

(C) When Credits Become Effective

a. Construction

Credits for construction of capital facilities shall become effective after the credit is approved pursuant to this section, a written credit agreement is entered into and (a) all required construction has been completed and has been accepted by the City, (b) suitable maintenance and financial warranty has been received and approved by the City, and (c) all design, construction, inspection, testing, financial warranty, and acceptance procedures have been completed in compliance with all applicable City requirements. Approved credits for the construction of capital facilities may become effective at an earlier date if the fee payer posts security in the form of an irrevocable letter of credit, escrow agreement, or cash and the amount and terms of such security are acceptable by the City Manager. At a minimum, such security must be in the amount of the approved construction credit plus 20 percent, or an amount determined to be adequate to allow the City to construct the capital facilities for which the credit was given, whichever is higher.

b. Contribution

Credits for contributions for capital facilities shall become effective after the credit is approved in writing pursuant to this section, a credit agreement is entered into and the contribution is made to the City in a form acceptable to the City.

c. Transferability of Credits

Credits for contributions, construction or dedication of land shall be transferable within the same development and for the same capital facility

for which the credit is provided but shall not be transferable outside the development. Credit may be transferred pursuant to these terms and conditions by a written instrument, to which the City is a signatory, that clearly identifies which credits issued under this section are to be transferred. The instrument shall be signed by both the transferor and transferee, and the document shall be delivered to the Director for registration of the change in ownership. If there are outstanding obligations under a credit agreement, the City may require that the transferor or transferee or both (as appropriate) enter into an amendment to the credit agreement to assure the performance of such obligations.

d. Total Amount of Credit

The total amount of the credit shall not exceed the amount of the impact fees due for the specific facility fee (e.g., fire, police, parks).

e. Capital Contribution Front-Ending Agreement

The City may enter into a capital contribution front-ending agreement with any developer who proposes to construct capital facilities to the extent the fair market value of the construction of these capital facilities exceeds the obligation to pay impact fees for which a credit is provided pursuant to this section. The capital contribution front-ending agreement shall provide proportionate and fair share reimbursement linked to the impact-generating development's use of the capital facilities constructed.

(ii) Procedure

(A) Submission of Application

In order to obtain a credit against impact fees, the fee payer shall submit an offer for contribution or construction. The offer shall be submitted to the Director and must specifically request a credit against impact fees.

(B) Contribution Offer Contents

The offer for contribution credit shall include the following:

a. Construction

If the proposed credit involves construction of capital facilities:

1. The proposed plan for the specific construction certified by a duly qualified and licensed Colorado engineer;
2. The projected costs for the suggested improvement, which shall be based on local information for similar improvements, along with the construction timetable for the completion thereof. Such estimated costs may include the costs of construction or reconstruction, the costs of all labor and materials, the costs of all lands, property, rights, easements and franchises acquired, financing charges, interest prior to and during construction and for one year after completion of construction, costs of

plans and specifications, surveys of estimates of costs and of revenues, costs of professional services, and all other expenses necessary or incident to determining the feasibility or practicability of such construction or reconstruction;

3. A statement made under oath of the facts that qualify the fee payer to receive a contribution credit.

b. Contribution

If the proposed offer involves a credit for any contribution for capital facilities, the following documentation shall be provided:

1. A copy of the Planning Clearance for which the contribution was established;
2. If payment has been made, proof of payment; or
3. If payment has not been made, the proposed method of payment.

(C) Determination of Completeness

The Director shall determine if the application is complete. If it is determined that the proposed application is not complete, the Director shall send a written statement to the applicant outlining the deficiencies. No further action shall be taken on the application until all deficiencies have been corrected.

(D) Decision

The Director shall determine if the offer for credit is complete and if the offer complies with the standards in GJMC 21.02.070(a)(6)(i).

(iii) Credit Agreement

If the offer for credit is approved by the Director, a credit agreement shall be prepared and signed by the applicant and the City Manager. The credit agreement shall provide the details of the construction or contribution of capital facilities, the time by which it shall be dedicated, completed, or paid, and the value (in dollars) of the credit against the impact fees the fee payer shall receive for the construction or contribution.

(iv) Accounting of Credits

Each time a request to use approved credits is presented to the City, the Director shall reduce the amount of the impact fees, and shall note in the City's records and the credit agreement the amount of credit remaining, if any.

(7) Impact Fee Accounts

(i) Establishment of Impact Fee Accounts

(A) Establishment of Impact Fee Accounts

For the purpose of ensuring impact fees collected pursuant to this section are designated for the mitigation of capital facility impacts reasonably attributable to new impact-generating development that paid the impact fees.

(B) Establishment of Impact Fee Accounts

Impact fees shall be deposited into five accounts (collectively, Impact Fee Accounts): transportation, parks and recreation, capital facilities, fire capital facilities, and police capital facilities accounts.

(ii) Deposit and Management of Impact Fee Accounts

(A) Managed in Conformance with § 29-1-801 C.R.S. et seq

The Impact Fee Accounts shall bear interest and shall be managed in conformance with § 29-1-801 C.R.S. et seq. No impact fees(s) or other similar development land development charge(s) shall be imposed or collected except pursuant to a schedule(s) that is(are) (a) adopted by ordinance by the City Council, pursuant to a legally sufficient study(ies); (b) generally applicable to a broad class of property; and (c) serves to defray the projected impacts on capital facilities caused by development. The City shall from time to time quantify the reasonable impacts of proposed development on existing capital facilities and establish the impact fee(s) or land development charge(s) at a level no greater than necessary to defray such impacts directly related to proposed development. No impact fee or other similar land development charge shall be imposed to remedy any deficiency in capital facilities that exists without regard to the proposed development.

(B) Immediate Deposit of Impact Fees in City Accounting Funds

All Parks and Recreation, Fire, Police, and Transportation impact fees collected by the City pursuant to this section shall be promptly deposited into the appropriate interest bearing accounting fund(s) ("Impact Fee Accounts") of the City designated, as allowed by § 29-1-803 C.R.S., by category, account or fund as determined by the City Manager or their designee. Any interest or other income earned on money deposited shall be credited to the Impact Fees Account(s) and no other City accounting fund(s).

(C) Interest Earned on Impact Fee Account Monies

Any impact fees not immediately expended shall be deposited as provided in this section. Interest earned on money in the Impact Fee Accounts shall be considered part of such account(s) and shall be subject to the same restrictions on use applicable to the impact fees deposited in such account.

(D) Income Derived Retained in Accounts until Spent

All income derived from the deposits shall be retained in the accounts until spent pursuant to the requirements of this section.

(E) Expenditure of Impact Fees

Monies in each account shall be considered to be spent in the order collected, on a first-in/first-out basis.

(iii) Annual Report

At least once annually the City will publish on its official website a report for the most recent fiscal year stating the amount of each Impact fee and/or land development charge collected to the Impact Fee Accounts, the average annual interest rate on each account and the total amount disbursed from each account.

(8) Expenditure of Impact Fees

(i) Capital Facilities Impact Fees

The monies collected from each capital facilities impact fee shall be used only to acquire or construct capital facilities within the City. Each and all capital facilities impact fees may, as determined by the City Council, be expended anywhere within the City notwithstanding the location of the project for which the impacts were paid.

(ii) No Monies Spent for Routine Maintenance, Rehabilitation or Replacement of Capital Facilities

No monies shall be spent for periodic or routine maintenance, rehabilitation, or replacement of any City transportation, parks and recreation, fire, or police capital facilities.

(iii) No Monies Spent to Remedy Deficiencies Existing on Effective Date of Chapter

No monies shall be spent to remedy existing deficiencies in transportation capital facilities, parks and recreation capital facilities, fire capital facilities, or police capital facilities.

(iv) Transportation Impact Fees

Transportation impact fee monies may be spent for the reconstruction and replacement of existing roads, the construction of new road systems and may be used to pay debt service on any portion of any current or future general obligation bond or revenue bond issued after July 6, 2004, and used to finance major road system improvements. All Transportation Impact Fees may, as determined by the City Council, be expended anywhere within the City notwithstanding the location of the project for which the impacts were paid.

(9) Refund of Impact Fees Paid

(i) Refund of Impact Fees Not Spent or Encumbered in 10 Years

A fee payer or the fee payer's successor-in-interest may request a refund of any impact fees not spent or encumbered within 10 years from the date the fee was paid, along with interest actually earned on the fees. Impact fees shall be deemed to be spent on the basis of the first fee collected shall be the first fee spent.

(ii) Procedure for Refund

The refund shall be administered by the Director, and shall be undertaken through the following process:

(A) Submission of Refund Application

A fee payer or successor-in-interest shall submit within one year following the end of the tenth year from the date on which the Planning Clearance was issued for which a refund is requested. The refund application shall include the following information:

- a. A copy of the dated receipt issued for payment of the impact fee;
- b. A copy of the Planning Clearance.

(B) Determination of Completeness

The Director shall determine if the refund application is complete. If the application is not complete, the Director shall mail the applicant a written statement outlining the deficiencies. The Director shall take no further action on the refund application until it is complete.

(C) Decision on Refund Application

When the refund application is complete, it shall be reviewed and approved if the Director determines a fee has been paid which has not been spent within the 10-year period. The refund shall include the fee paid plus interest actually earned on the impact fee.

(iii) Limitations

(A) Expiration of Planning Clearance without Possibility of Extension

If a fee payer has paid an impact fee required by this section and obtained a Planning Clearance, and the Planning Clearance for which the impact fee was paid later expires without the possibility of further extension, then the fee payer or the fee payer's successor-in-interest may be entitled to a refund of the impact fee paid, without interest. In order to be eligible to receive a refund of impact fees pursuant to this subsection, the fee payer or the fee payer's successor-in-interest shall be required to submit an application for such refund to the Director within 30 days after the expiration of the Planning Clearance for which the fee was paid. If a successor-in-interest claims a refund of the impact fee, the City may require written documentation that such rights have been conveyed to the claimant. If there is uncertainty as to the person to whom the refund is to be paid or if there are conflicting demands for such refund, the City Attorney may interplead such funds.

(iv) No Refund If Project Demolished, Destroyed, Altered, Reconstructed or Reconfigured

After an impact fee has been paid pursuant to this section, no refund of any part of such fee shall be made if the development for which the impact fee was paid is later demolished, destroyed, or is altered, reconstructed, reconfigured, or changed in use so as to reduce the size or intensity of the development or the number of units in the development.

(10) Low-Moderate Income Housing

In order to promote the provision of low-moderate income housing in the City, the City Council may agree in writing to pay some or all of the impact fees imposed on a proposed low or moderate income housing development by this section from other unrestricted funds of the City. Payment of impact fees on behalf of a fee payer shall be at the discretion of the City Council and may be made pursuant to goals and objectives adopted by the City Council to promote housing affordability.

(11) Administration, Appeals and Updates of Determination or Decision of Director to City Manager

(i) Review Every Five Years

The impact fees described in this section and the administrative procedures of this section shall be reviewed at least once every five years by an independent consultant, as directed by the City Manager, to ensure that (i) the demand and cost assumptions underlying the impact fees are still valid, (ii) the resulting impact fees do not exceed the actual costs of constructing capital facilities that are of the type for which the impact fees are paid and that are required to serve new impact-generating development, (iii) the monies collected or to be collected in each impact account have been and are expected to be spent for capital facilities for which the impact fees were paid, and (iv) the capital facilities for which the impact fees are to be used will benefit the new development paying the impact fees.

(ii) Appeal

(A) Director Determination or Decision

Any determination or decision made by the Director under this section may be appealed to the City Manager by filing with the City Manager within 30 days of the determination or decision for which the appeal is being filed: (A) a written notice of appeal on a form provided by the City Manager, (B) a written explanation of why the appellant feels the determination or decision is in error, and (C) an appeal fee established by the City.

(B) City Manager Review

The City Manager shall fix a time and place for hearing the appeal, and shall mail notice of the hearing to the appellant at the address given in the notice of appeal. The hearing shall be conducted at the time and place stated in the notice given by the City Manager. At the hearing, the City Manager shall consider the appeal and either affirm or modify the decision or determination of the Director based on the relevant standards and requirements of this section. The decision of the City Manager shall be final.

(C) Administrative Rules

The City Manager and Director, and their respective designees, may from time to time establish written administrative rules, not inconsistent with the provisions of this section, to facilitate the implementation of this section as provided in GJMC

21.02.010. Without limiting the foregoing, the Director is authorized to establish written administrative rules, not inconsistent with the provisions of this section, for use in the determination of the land use category(ies) in the impact fee schedule that is applicable to impact-generating development. All administrative rules adopted pursuant hereto shall be published in written form and copies thereof maintained in the offices of the Director and City Clerk. Administrative rules adopted pursuant hereto and a copy of such rules shall be made available without charge to fee payers and other persons requesting a copy thereof.

(12) Impact Fee Schedule – Fire, Police, Parks and Recreation, and Transportation

Table 21.02-8: Impact Fee Schedule (2023) Fire, Police, Parks and Recreation & Transportation

		Fire	Police	Parks & Recreation	Transportation
Single-Family					
<1,250 sq. ft. of living area	Dwelling	\$751	\$323	\$1,333	\$3,078
1,250 to 1,649 sq. ft. of living area	Dwelling	\$751	\$323	\$1,333	\$4,711
1,650 to 2,299 sq. ft. of living area	Dwelling	\$751	\$323	\$1,333	\$5,377
2,300 sq. ft. or more of living area	Dwelling	\$751	\$323	\$1,333	\$7,042
Manufactured Home in a Manufactured Housing Community	Pad	\$751	\$323	\$1,333	\$3,196
Multi-family	Dwelling	\$494	\$212	\$897	\$2,881
RV Park	Pad	\$494	\$212	---	\$3,196
Hotel/Lodging	1,000 sf	\$517	\$218	---	\$3,972 [1]
Retail/Commercial	1,000 sf	\$517	\$218	---	\$7,227
Convenience Commercial (Gas station/Drive Thru)	1,000 sf	\$517	\$218	---	\$15,364
Office	1,000 sf	\$202	\$86	---	\$5,799
Institutional/ Public	1,000 sf	\$202	\$86	---	\$1,426
Industrial	1,000 sf	\$70	\$30	---	\$2,025
Warehousing	1,000 sf	\$36	\$15	---	\$921
Notes:					
[1] Hotel/Lodging Transportation Fee calculated per Room					
Fees will be increased annually for inflation					

(b) School Land Dedication Fee

(1) Standard for School Land Dedication

Dedication of suitable school lands for school purposes shall be required of any development if the school district determines that such development includes within it

land which is necessary for implementing a school plan. In all other cases, the fee required under GJMC 21.02.070(b)(1)(ii) shall be paid in lieu of a school land dedication.

(i) Standard for Fee in Lieu of School Land Dedication

Except in cases where a school land dedication is required in accordance with this section, or an exemption under this section applies, all development and all projects which contain a new dwelling shall be subject to fees in lieu of school land dedication (SLD fee) in an amount per dwelling unit determined by resolution of the City Council. SLD fees shall be collected by the City for the exclusive use and benefit of the school district in which such development is located and shall be expended by the school district solely to acquire real property or interests in real property reasonably needed for development or expansion of school sites and facilities, or to reimburse the school district for sums expended to acquire such property or interests. Revenues from such fees shall be used only for such purposes.

(ii) Payment, Prepayment, Exemption, Credit, and Refund of SLD Fee

- (A) No building permit shall be issued for a dwelling, multiple-family dwelling or multifamily dwelling which is or contains one or more dwelling units until and unless the SLD fee for such dwelling unit in effect at the time such permit is applied for has been paid as required by this section.
- (B) Nothing in GJMC 21.02.070(b)(1)(i) shall preclude a holder of a development permit for a residential development or mixed-use development containing a residential development component from prepaying the SLD fees to become due under this section for one or more dwellings, multiple-family dwellings or multifamily dwellings to be constructed in such development. Such prepayment shall be made upon the filing of a Final Plat for residential development, at the SLD fee rate then in effect and in the amount which would have been due had a building permit application for such dwelling been pending at the time of prepayment. A subsequent building permit for a dwelling, multiple-family dwelling or multifamily dwelling which is or contains one or more dwelling units for which the SLD fees have been prepaid shall be issued without payment of any additional SLD fees. However, if such permit would allow additional dwelling units for which SLD fees have not been prepaid, such permit shall not be issued until the SLD fees for such additional dwelling units have been paid at the rate per dwelling unit in effect at the time the building permit application was made.
- (C) Any prepayment of SLD fees in accordance with this section shall be documented by a memorandum of prepayment which shall contain, at minimum, the following:
 - a. The legal description of the real property subject to residential development for which an SLD fee is being prepaid;

- b. A description of the development permit issued concerning such real property, and a detailed statement of the SLD fees owed pursuant to such permit which are being prepaid;
- c. The notarized signatures of the record owner of the property or their duly authorized agents; and
- d. The notarized signature of the County Manager indicating approval of the prepayment plan, if the fee was paid while the real property was outside the limits of the City; or if the fee was paid at the time the real property was within the limits of the City, of the City Manager, indicating approval of the prepayment plan.

(iii) Exemptions

The following shall be exempted from payment of the SLD fee:

- (A) Alterations or expansion of an existing building except where the use is changed from nonresidential to residential and except where additional dwelling units result;
- (B) The construction of accessory buildings or structures;
- (C) The replacement of a destroyed or partially destroyed building or structure with a new building or structure of the same size and use;
- (D) The installation of a replacement mobile home on a lot or other parcel when a fee in lieu of land dedication for such mobile home has previously been paid pursuant to this section or where a residential mobile home legally existed on such site on or before the Effective Date of the ordinance codified in this section;
- (E) Nonresidential buildings, nonresidential structures, or nonresidential mobile homes;
- (F) Nursing homes, adult foster care facilities or specialized group facilities; and
- (G) City- or County-approved planned residential developments that are subject to recorded covenants restricting the age of the residents of said dwelling units such that the dwelling units may be classified as housing for older persons pursuant to the Federal Fair Housing Amendments Act of 1988.

(iv) Credits

- (A) An applicant for a development permit (or a holder of such a permit) who owns other suitable school lands within the school district in which the development is located may offer to convey such lands to the school district in exchange for credit against all or a portion of the SLD fees otherwise due or to become due. The offer must be in writing, specifically request credit against fees in lieu of school land dedication, and set forth the amount of credit requested. If the City and the school district accept such offer, the credit shall be in the amount of the

value of the suitable school lands conveyed, as determined by written agreement between the City, the school district and the permit holder or applicant.

- (B) Credit against SLD fees otherwise due or to become due will not be provided until good and sufficient title to the property offered under this subsection is conveyed to and accepted by the school district. Upon such conveyance, the school district and the City shall provide the applicant with a letter or certificate setting forth the dollar amount of the credit, the reason for the credit, and a description of the project or development to which the credit shall be applied.
- (C) Credits shall not be transferable from one project or development to another.

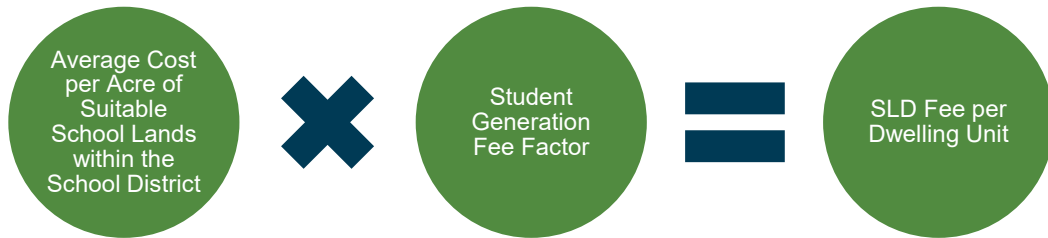
(v) Refund of Fees Paid

- (A) Any SLD fee which has not been expended by the school district within five years of the date of collection shall be refunded, with interest at the rate of five percent per annum compounded annually, to the person who paid the fee. Prior to such refund, such amount shall be reduced by an amount equal to three percent of the principal amount to be refunded, for the costs incurred by the City in the refund of such fee. The City shall give written notice by U.S. mail to the person who paid the fee at their address as reflected in the records of the Mesa County Clerk and Recorder. If such person does not file a written claim for such refund with the City within 90 days of the mailing of such notice, such refund shall be forfeited and shall be retained and used for the purposes set forth in this section.
- (B) The City Council may, upon the school district's request, extend the five-year period of time specified in GJMC 21.02.070(b)(1)(v)(A) upon a showing that such extension is reasonably necessary in order for the school district to complete or close a purchase transaction entered into in writing by such district prior to expiration of such period, or to give the school district an opportunity to exercise a purchase option it acquired prior to expiration of such period. Such request shall be made at a public hearing of the City Council. In no event shall any extension of time exceed an additional five-year period.

(2) Fees in Lieu of School Land Dedication (SLD Fees)

- (i) SLD fees shall be collected and held in trust for the use and benefit of the school district containing the residential development for which the fee is collected. Such fees shall be expended by the school district to acquire additional real property for expansion of school facilities and construction of new school facilities necessitated by new residential development in the school district, or to reimburse the school district for sums expended to acquire such property. The amount of the SLD fee shall be based on a methodology which takes into account the student generation rates of new residential development, the quantity of land required to build new school facilities on a per pupil basis, and the anticipated cost of acquiring suitable school lands in the school district to expand existing school facilities and construct new school facilities to accommodate new residential development without decreasing current levels of educational services.

- (ii) The SLD fee and the value of the variables in the formula to determine the SLD fee shall be set by resolution of the City Council in accordance with the following formula:



(For example, if the average cost of suitable school lands within the school district is \$15,000 per acre and the student generation fee factor is 0.023, the SLD fee per dwelling unit would be \$15,000 x 0.023, or \$345.00.)

- (iii) The average cost per acre of suitable school lands within the school district (“average cost per acre for SLD fee”) and the student generation fee factor (“SGF factor”) shall be determined by City Council. Before City Council considers modification of either, a 60-day prior written notice shall be provided to the school district. If a written request for a public hearing specifying which factor, the average cost per acre for SLD fee and/or the SGF factor, the school district wants to be heard on is received by the City from the school district at least 30 days before the matter is scheduled to be determined by City Council, a public hearing shall occur. At a hearing where City Council is considering the modification of the average cost per acre for SLD fee, City Council shall consider the school district’s long range capital improvement plans and any other evidence, comments or recommendations submitted by the school district. At a hearing where City Council is considering the modification of the SGF factor, City Council shall consider the school district’s school facilities plan currently in place, the methodology and data supporting the proposed modification, and any evidence, comments or recommendations submitted by the school district.
- (iv) The SLD fee in effect as of January 1, 2006, was \$460.00. The SGF factor used to determine the SLD fee was 0.023. This SLD fee and SGF factor shall continue until otherwise modified by City Council as set forth in this Code.

Impact Fee Stakeholder Group

#	Organization/Group	Name
1.	HBA of Western Colorado	Diane Schwenke
2.	Western Colorado Contractors' Association	Shawna Grieger
3.	Grand Junction Area Realtor's Association	Hogan Peterson
4.	Grand Junction Chamber of Commerce	Candace Carnahan, Primary Evan Walton, Secondary
5.	Latino Chamber of Commerce	Jorge Pantoja
6.	Grand Junction Economic Partnership	Curtis Englehart
7.	Grand Valley RTPO/Grand Valley Transit	Dana Brosig
8.	Urban Trails Committee	Dr. Stephen Meyer
9.	Downtown Development Authority	TBD
10.	Parks & Recreation Advisory Board	Bill Findlay, Primary Lisa Whelan, Secondary (in July)
11.	Grand Junction Housing Authority	Jill Norris
12.	Non-profit Housing Representative	Emilee Powell
13.	Citizen's Police Academy Graduate	Laurel Walters
14.	Local Fire Department representative	Steve Skulski
15.	Community Members at-large	Chuck McDaniel
16.	Community Members at-large	Charlie Gechter
17.	Community Members at-large	Orin Zyvan
18.	Community Members at-large	Ken Scissors
19.	Community Members at-large	Christi Reece

Affordable Housing Linkage Fee Support Study

Prepared for:
City of Grand Junction, Colorado

DRAFT
December 13, 2024



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Bethesda, MD 20816
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EXECUTIVE SUMMARY

The City of Grand Junction, Colorado, retained TischlerBise, Inc., to develop an Affordable Housing Linkage Fee Support Study. The purpose of this report is to define and analyze the linkage between nonresidential development¹ and the demand for affordable housing. Through the analysis of existing types of nonresidential development, income levels of employees, and the composition of worker households by size of household, this analysis determines the demand for affordable housing created by each type of nonresidential development. The study then determines nonresidential development’s share of the City’s cost to provide the demanded affordable housing as the affordable housing linkage fee.

Maximum supportable affordable housing linkage fees are shown in Figure 1 based on the assumptions included in this study. Based on the findings in the study, this is the maximum supportable fee amount (per 1,000 square feet) reflecting the nexus between the demand for affordable housing from different types of nonresidential development and the cost of housing in Grand Junction. Maximum supportable linkage fees *per job* are also provided and shown in Figure 2. Affordable housing linkage fees may be adopted at levels lower than the maximum supportable fees.

Figure 1: Maximum Supportable Affordable Housing Linkage Fees by Land Use

Household Income Level	Housing Prototype	Affordability Gap per Unit	Estimated City Funding % Share ²	Linkage Fees Per 1,000 Sq. Ft. ¹									
				Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging			
50% AMI (Rental)	Rental	\$279,900	10%	\$27,990	\$2,323	\$10,216	\$252	\$1,777	\$42	\$0	\$1,008		
60% AMI (Rental)	Rental	\$263,900		\$26,390	\$2,718	\$12,007	\$620	\$106	\$53	\$13	\$1,227		
80% AMI (Owner)	Ownership	\$167,895		\$16,790	\$1,822	\$8,009	\$1,436	\$722	\$101	\$34	\$999		
100% AMI (Owner)	Ownership	\$111,994		\$11,199	\$745	\$3,281	\$1,025	\$482	\$90	\$28	\$0		
Total					\$7,608	\$33,513	\$3,333	\$3,087	\$286	\$75	\$3,234		
											<i>Per Lodging Room³</i>	<i>\$1,940</i>	
												<i>Per RV Park Site⁴</i>	<i>\$174</i>

1. TischlerBise analysis (housing demand per 1,000 square feet of bulding area multiplied by affordability gap); assumes 35% worker households in Grand Junction.
2. See supporting figures.
3. Converted from square feet based on 600 square feet of gross building area per room for lodging.
4. RV Park jobs per site of .05 multiplied by Lodging land use fee per job (\$3,477). See Appendix B for further detail.

Figure 2. Maximum Supportable Affordable Housing Linkage Fees per Job

	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
Linkage Fee per 1,000 Sq. Ft.	\$7,608	\$33,513	\$3,333	\$3,087	\$286	\$75	\$3,234
Jobs per 1,000 Sq. Ft.	2.12	9.35	3.26	2.86	1.16	0.34	0.93
Linkage Fee per Job	\$3,589	\$3,584	\$1,022	\$1,079	\$247	\$221	\$3,477

¹ Given the nature of the Grand Junction economy—namely, that residential development does not generate significant permanent job creation, TischlerBise’s recommendation is to focus the linkage fee on nonresidential development and pursue other approaches for residential mitigation.

METHODOLOGY

The linkage fee analysis is comprised of two parts: (1) Mitigation Determination and (2) Linkage Fee Calculation. The following two diagrams outline the process under each part.

Figure 3. Mitigation Determination

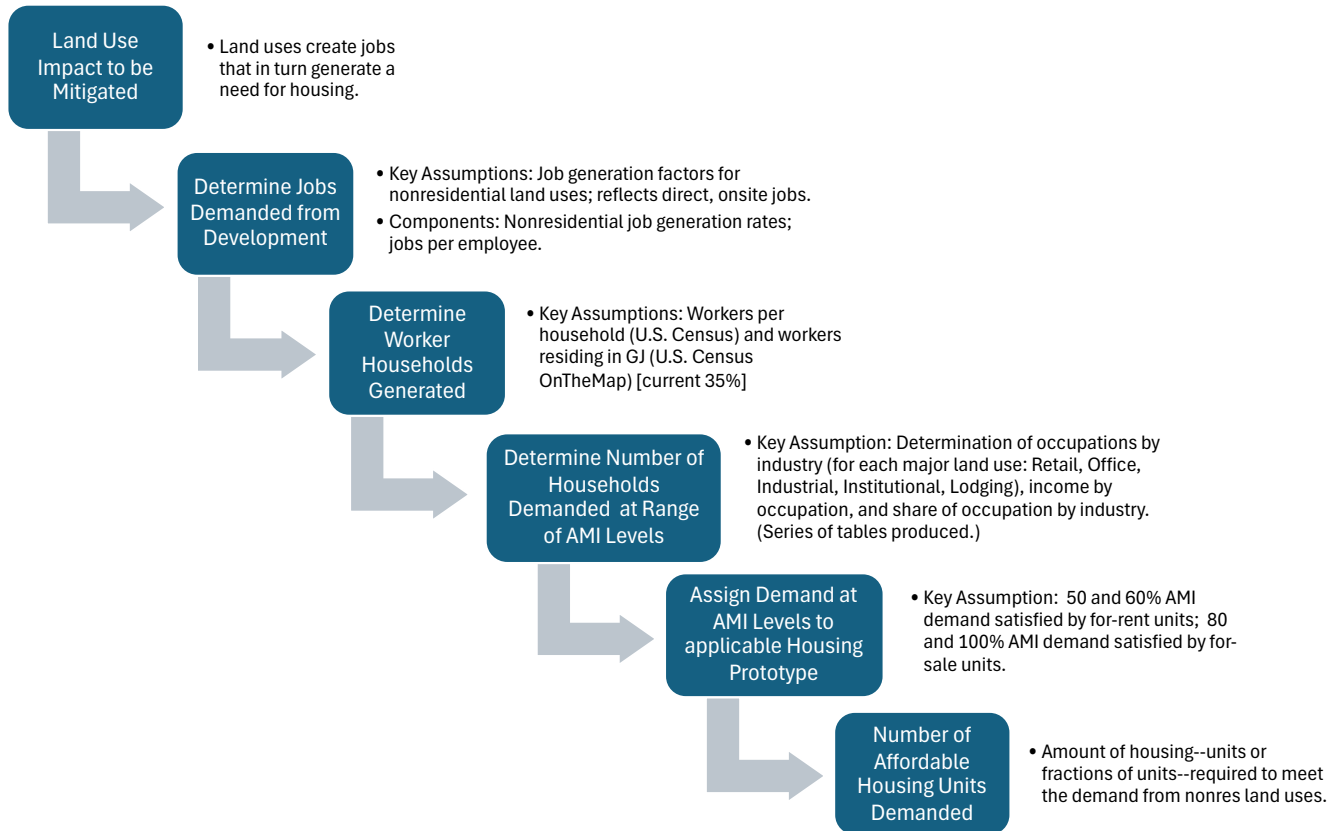
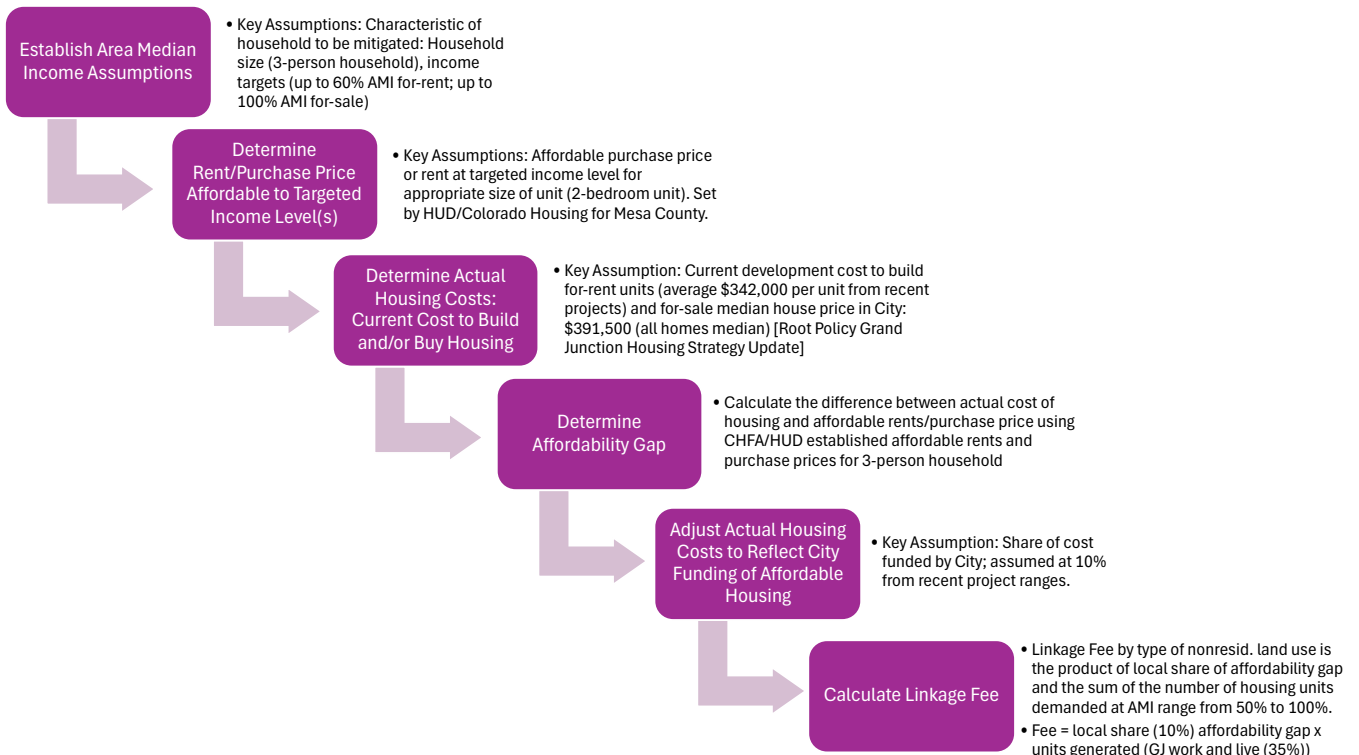


Figure 4. Linkage Fee Calculation



Each of the steps above is described in greater detail in the body of the report. The end point for the Affordable Housing Linkage Fee Support Study is the determination of demand for affordable housing units in the City of Grand Junction from different types of nonresidential development and to quantify the respective land use’s share of the cost to provide affordable housing. The following elements are included in the study along with a reference to the corresponding section of this report:

Mitigation Determination

1. Jobs generated from different types of nonresidential development (Report section: “Building Types and Industries”);
2. Number of workers estimated to be generated due to that development (Report section: “Worker Households”);
3. Income level of the workers and worker households generated which entails determining the following:
 - a. Type of occupations of the workers generated (Report section: “Occupations”);
 - b. Average salaries of those workers (Report section: “Household Income”);

- c. Average household income by type and size of household; (Report section: “Household Income”);
- d. Number and share of worker households by each income level group (e.g., below median household income level) (Report section: “Households by Income Level”);
4. Adjustment for workers who both live and work in Grand Junction (thus accounting for those workers who live outside of the City) (Report section: “Commuter Adjustment”);
5. Share of the new worker households/number of affordable housing units demanded by each type of nonresidential building at each income level (Report section: “Housing Demand”);

Linkage Fee Calculation

1. Types of housing units applicable to meet the needs of workers at different income levels (Report section: “Housing Prototypes”);
2. Cost per unit to construct two-bedroom affordable for-rent and median sale price of for-sale housing units (Report section: “Housing Costs”);
3. The difference between what households can afford to spend on housing costs and what it costs to produce or purchase housing in Grand Junction (Report section: “Affordability Gap”);
4. The maximum supportable cost per 1,000 square feet of nonresidential development needed to deliver affordable housing at targeted income levels and reflective of the City’s share of costs (Report section: “Maximum Supportable Affordable Housing Linkage Fees”).

It should be noted that throughout this report an **Industrial Building Prototype** is used to illustrate the methodology and calculations. The Appendix provides detailed data for all building prototypes.

A note on rounding: Calculations throughout this report are based on analysis conducted using Excel software. Results are discussed in the report using multiple decimal places (in most cases), which represent rounded figures. However, in some instances the analysis itself uses figures carried to their ultimate decimal places; therefore, the sums and products generated in the analysis may not equal the sums or products if the reader replicates the calculation with the factors shown in the report (due to the rounding of figures shown).

BUILDING TYPES AND INDUSTRIES

This analysis uses seven building types to determine demand for affordable housing in Grand Junction, Colorado. The building types align with the Grand Junction Development Impact Fee update and include: retail/commercial; convenience commercial; office; institutional; industrial; warehousing; and lodging. Each building type consists of the following industries²:

1. **Retail / Commercial** includes retailers, food and drinking places, and personal services. Restaurants and other eating places, food and beverage stores, general merchandise stores, automobile dealers, and building material and supply stores account for the largest share of retail employment.
2. **Convenience Commercial** is a subset of the retail category; the prototype industry used for this analysis is a fast-food restaurant with large drive-through surrounded by a small surface parking lot with access to one or more commercial roads. Establishments have large carry-out clientele and can have long hours of service (including 24-hour service).
3. **Office** refers to a general office building housing multiple tenants including, but not limited to, professional services, insurance companies, investment brokers and tenant services such as banking, restaurants and service retail facilities.
4. **Institutional** includes hospitals, schools, and educational services.
5. **Industrial** refers to manufacturing facilities where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research and associated functions.
6. **Warehousing** is a subset of industrial land use category which is primarily devoted to the storage of materials, but it may also include office and maintenance areas.
7. **Lodging** reflects hotels, motels, and places providing short-term sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room), and/or other retail and service shops. RV Park is included as a related land use.

² Industry: The business activity of a person's employer or, if self-employed, of their company or business. Examples include a grocery store, hospital, bank, or aircraft manufacturer. Industries are classified by NAICS codes. *An industry includes people with different occupations who work for the same type of business.*

Employment Factors

To estimate employment generated by nonresidential land uses, the study uses employee to building area (floor area) data published by the Institute of Transportation Engineers (ITE). The prototypes for each nonresidential land use along with the number of employees per 1,000 square feet of floor area are shown below in Figure 5.

Figure 5: Employee and Building Area Ratios

Land Use Type	ITE Code	Demand Unit	Employees per Demand Unit ¹
Retail/Commercial	820	1,000 SF	2.12
Convenience Commercial	934	1,000 SF	9.35
Office/Service	710	1,000 SF	3.26
Institutional	610	1,000 SF	2.86
Industrial	130	1,000 SF	1.16
Warehousing	150	1,000 SF	0.34
Hotel/Lodging	310	room	0.56
Hotel/Lodging ²	310	1,000 SF	0.93
RV Park ³	na	site	0.05

1. Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition, 2021 (unless otherwise specified)

2. Converted from per room factor assuming gross 600 sq.ft./room.

3. National Association of RV Parks & Campgrounds (ARVC), "2023 Outdoor Hospitality Industry Benchmarking Report."

WORKER HOUSEHOLDS

To calculate the demand for housing units from each building type, employees must first be converted to worker households. This excludes all households without workers and provides an accurate estimate of the number of housing units needed for workers.

Workers per worker household is the product of (1) workers and (2) households with at least one employed person. This ratio is calculated with data from the American Community Survey (ACS) 2018-2022, 5-year estimates provided by the U.S. Census in files known as Public Microdata Samples (PUMS). This data is available for areas with populations of at least 100,000 and therefore available for the City of Grand Junction, Colorado.

Per U.S. Census data, Grand Junction housed 1.8 workers per worker household—this includes full-time and part-time workers. This reveals worker households in the City house more than one worker per worker household; therefore, an additional housing unit will not be needed for every new employee. To determine the number of housing units needed for each building type’s employees, the number of new employees generated by each building type is divided by 1.8.

Figure 6: Worker Households

Grand Junction, CO

Residents in Labor Force	33,631
Worker Households	18,937
Workers per Household	1.8

Source: U.S. Census Bureau, 2022: ACS 5-Year Estimates Detailed Tables.

Commuter Analysis

Jobs located in Grand Junction are held by both city residents and non-residents. Therefore, an adjustment is made regarding the demand for housing from nonresidential development; namely to reflect the estimated share of workers who also live in the City of Grand Junction. Commuting data available from the U.S. Census Bureau’s online web application, OnTheMap, reveals that 35 percent of jobs in the City are held by City residents.

Figure 7: Resident Workers

Employed in Grand Junction	49,018
Employed and Living in Grand Junction	17,052
Share of GJ Workers Living in GJ	35.0%

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Qtr Employment, 2nd Qtr of 2021).

Both factors are applied to jobs created by nonresidential buildings to determine the worker households (i.e., housing units) demanded by each land use type. To determine housing demand from an average size building, all building types are represented as a 20,000-square-foot building throughout this analysis.

Figure 8: Employees and Households by Building Type

		BUILDING/LAND USE TYPE						
		Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
Employees per 1,000 SF ¹		2.12	9.35	3.26	2.86	1.16	0.34	0.93
Employees per 20,000 Sq. Ft.		42.4	187.0	65.2	57.2	23.2	6.8	18.6
Worker Households ²	1.8	23.6	103.9	36.2	31.8	12.9	3.8	10.3
Resident Worker Households ³	0.4	8.3	36.4	12.7	11.1	4.5	1.3	3.6

1. Trip Generation, Institute of Transportation Engineers, 2021. (Institutional is Hospital; Lodging assumes gross 600 sq.ft./room per TischlerBise data.)

2. Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Public Use Microdata Areas 1001 (2010 PUMA) and 2501 (2020 PUMA).

3. Grand Junction residents working in city limits; U.S. Census Bureau, OnTheMap web application, 2021.

OCCUPATIONS

The next step in the methodology is to determine the types of occupations³ generated by each building type. To do this, U.S. Census ACS PUMS data is used. Included are occupation estimates classified by industry using the standard North American Industry Classification System (NAICS) industry codes. Results are shown below in Figure 9.

Figure 9: Occupation Distribution

	BUILDING/LAND USE TYPE						
	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
Occupation Distribution by Building Type¹							
Management Occupations	4.3%	4.3%	10.9%	4.1%	13.1%	13.1%	11.1%
Business and Financial Operations Occupations	2.9%	2.9%	5.2%	2.2%	2.0%	2.0%	0.0%
Computer and Mathematical Occupations	0.1%	0.1%	2.3%	2.2%	1.6%	1.6%	0.0%
Architecture and Engineering Occupations	0.0%	0.0%	2.5%	0.2%	3.7%	3.7%	2.0%
Life, Physical, and Social Science Occupations	0.5%	0.5%	1.4%	2.2%	0.7%	0.7%	0.0%
Community and Social Service Occupations	0.0%	0.0%	4.0%	3.1%	0.0%	0.0%	0.0%
Legal Occupations	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%
Education, Training, and Library Occupations	0.6%	0.6%	2.3%	61.1%	0.4%	0.4%	0.0%
Arts, Design, Entertainment, Sports, and Media Occupations	3.3%	3.3%	1.3%	2.4%	0.2%	0.2%	8.2%
Healthcare Practitioners and Technical Occupations	1.6%	1.6%	15.0%	0.6%	0.0%	0.0%	0.0%
Healthcare Support Occupations	0.0%	0.0%	10.3%	0.7%	0.0%	0.0%	0.0%
Protective Service Occupations	1.3%	1.3%	4.0%	0.5%	0.7%	0.7%	2.7%
Food Preparation and Serving Related Occupations	22.4%	22.4%	1.7%	3.2%	0.3%	0.3%	8.2%
Building and Grounds Cleaning and Maintenance Occupations	2.0%	2.0%	4.1%	5.6%	1.3%	1.3%	42.3%
Personal Care and Service Occupations	2.4%	2.4%	1.6%	1.1%	0.1%	0.1%	6.3%
Sales and Related Occupations	29.8%	29.8%	3.9%	0.0%	5.9%	5.9%	0.0%
Office and Administrative Support Occupations	9.5%	9.5%	15.9%	9.6%	10.4%	10.4%	12.0%
Farming, Fishing, and Forestry Occupations	0.2%	0.2%	0.1%	0.0%	2.5%	2.5%	0.0%
Construction and Extraction Occupations	0.6%	0.6%	0.8%	0.0%	20.6%	20.6%	0.0%
Installation, Maintenance, and Repair Occupations	3.1%	3.1%	4.6%	0.4%	4.5%	4.5%	1.9%
Production Occupations	2.8%	2.8%	2.9%	0.0%	13.7%	13.7%	0.0%
Transportation and Material Moving Occupations	12.5%	12.5%	3.7%	0.8%	18.1%	18.1%	5.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Retail/Commercial and Convenience Commercial reflect the retail industry category; Industrial and Warehousing reflect the industrial industry category.

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

³ Occupation: A person's job or the type of work they do. Examples include a physical therapist, cashier, security guard, or electrician. The analysis uses "major group level" (per Standard Occupational Classification (SOC) (Bureau of Labor Statistics)).

The next step involves converting the occupation distribution to worker households by occupation. Using the estimate of worker households in Figure 8 and the occupation distribution shown in Figure 9, the number of worker households per occupation for each of the building types can be estimated. For example, as shown below in Figure 10, transportation and material moving occupations account for 2.34 households of the industrial building type’s 12.9 total worker households.

Figure 10: Households by Occupation

Households per 20,000 SF by Occupation and Building Type ¹	BUILDING/LAND USE TYPE						
	Retail /	Convenience					
	Commercial	Commercial	Office	Institutional	Industrial	Warehousing	Lodging
Management Occupations	1.00	4.42	3.93	1.31	1.70	0.50	1.14
Business and Financial Operations Occupations	0.69	3.04	1.87	0.70	0.26	0.08	0.00
Computer and Mathematical Occupations	0.03	0.13	0.82	0.69	0.20	0.06	0.00
Architecture and Engineering Occupations	0.00	0.00	0.92	0.07	0.48	0.14	0.21
Life, Physical, and Social Science Occupations	0.11	0.50	0.52	0.69	0.09	0.03	0.00
Community and Social Service Occupations	0.00	0.00	1.45	0.97	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.57	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.14	0.61	0.82	19.44	0.06	0.02	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.79	3.46	0.47	0.77	0.03	0.01	0.84
Healthcare Practitioners and Technical Occupations	0.38	1.67	5.42	0.20	0.00	0.00	0.00
Healthcare Support Occupations	0.01	0.05	3.73	0.21	0.00	0.00	0.00
Protective Service Occupations	0.31	1.39	1.45	0.15	0.09	0.03	0.28
Food Preparation and Serving Related Occupations	5.29	23.29	0.61	1.03	0.04	0.01	0.84
Building and Grounds Cleaning and Maintenance Occupations	0.47	2.05	1.48	1.78	0.17	0.05	4.36
Personal Care and Service Occupations	0.57	2.50	0.59	0.35	0.01	0.00	0.64
Sales and Related Occupations	7.04	30.98	1.40	0.00	0.76	0.22	0.00
Office and Administrative Support Occupations	2.23	9.83	5.76	3.05	1.34	0.40	1.23
Farming, Fishing, and Forestry Occupations	0.05	0.22	0.02	0.00	0.32	0.09	0.00
Construction and Extraction Occupations	0.14	0.62	0.29	0.00	2.66	0.78	0.00
Installation, Maintenance, and Repair Occupations	0.74	3.25	1.68	0.12	0.59	0.17	0.20
Production Occupations	0.67	2.94	1.06	0.00	1.77	0.52	0.00
Transportation and Material Moving Occupations	2.94	12.96	1.34	0.27	2.34	0.69	0.55
Total Worker Households	23.60	103.90	36.20	31.80	12.90	3.80	10.30

1. TischlerBise calculation; based on data from U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

Income by Occupation

Income data for occupations by industry are also available from the U.S. Census ACS PUMS data for Grand Junction. Incomes are first adjusted to 2022 dollars with the ACS inflation factor and then updated to 2024 dollars by applying the percent increase in wages from the Quarterly Census of Employment and Wages (QCEW) for Mesa County. (QCEW provides the most current data with the limitation that it is only available at the county level. See Figure 12.)

Incomes by occupations are shown below in Figure 11 for the Industrial building prototype.

Figure 11: Income by Occupation for Industrial Building Prototype

Occupation Distribution	Grand Junction 2024 Average Income ¹	Occup. as Share of Industrial Workers ²	Average Income per HH (rounded)	Wrkr Households per 20,000 SF ³
				Total Wrkr Households
Management Occupations	\$118,788	13.1%	\$15,620	1.70
Business and Financial Operations Occupations	\$99,567	2.0%	\$1,980	0.26
Computer and Mathematical Occupations	\$71,541	1.6%	\$1,130	0.20
Architecture and Engineering Occupations	\$91,155	3.7%	\$3,370	0.48
Life, Physical, and Social Science Occupations	\$41,290	0.7%	\$300	0.09
Community and Social Service Occupations	\$0	0.0%	\$0	0.00
Legal Occupations	\$0	0.0%	\$0	0.00
Educational Instruction and Library Occupations	\$47,030	0.4%	\$210	0.06
Arts, Design, Entertainment, Sports, and Media Occupations	\$18,816	0.2%	\$40	0.03
Healthcare Practitioners and Technical Occupations	\$0	0.0%	\$0	0.00
Healthcare Support Occupations	\$0	0.0%	\$0	0.00
Protective Service Occupations	\$55,886	0.7%	\$390	0.09
Food Preparation and Serving Related Occupations	\$17,079	0.3%	\$50	0.04
Building and Grounds Cleaning and Maintenance Occupations	\$24,313	1.3%	\$320	0.17
Personal Care and Service Occupations	\$37,507	0.1%	\$30	0.01
Sales and Related Occupations	\$99,314	5.9%	\$5,870	0.76
Office and Administrative Support Occupations	\$49,455	10.4%	\$5,160	1.34
Farming, Fishing, and Forestry Occupations	\$31,547	2.5%	\$780	0.32
Construction and Extraction Occupations	\$53,850	20.6%	\$11,110	2.66
Installation, Maintenance, and Repair Occupations	\$80,049	4.5%	\$3,640	0.59
Production Occupations	\$49,947	13.7%	\$6,840	1.77
Transportation and Material Moving Occupations	\$58,518	18.1%	\$10,600	2.34
Weighted Average Annual Wage		100.0%	\$67,440	12.90

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 12: Income Adjustment to 2024 Dollars

Q1 2022	\$968
Q1 2024	\$1,140
Net Increase	\$172
Percent Increase	17.8%

Source: Labor Market Information, Quarterly Census of Employment and Wages (QCEW) Program for Mesa County (Average Weekly Wage, All Industries) accessed from Colorado Labor Market Information Gateway.

HOUSEHOLD INCOME

Estimating household income is a two-step process. This includes (1) determining household type and size (i.e., number of workers per household (with workers)) for each household size, and (2) estimating household income for each household type.

Worker by Industry by Household Type and Size

Data from U.S. Census ACS 2018-2022 5-Year Estimates identifies the number of workers by industry in each category of household type/size. This data is used to determine income by industry and household type/size. Figure 13 provides the distribution of workers by industry in each household size category.

Figure 13. Workers by Industry by Household Type and Size

Workers by Industry in Each Household Type

	1-person	2-person	3-person	4+ person	Grand Total
Retail	2,553	5,370	3,480	5,693	17,096
Office	4,397	10,715	5,993	9,367	30,472
Industrial	2,335	6,234	3,324	6,322	18,215
Institutional	1,785	2,791	1,670	1,460	7,706
Lodging	70	301	223	190	784
Not Included	0	18	0	0	18
Total	11,140	25,429	14,690	23,032	74,291

% Workers by Industry in Each Household Type

Retail	14.9%	31.4%	20.4%	33.3%	100.0%
Office	14.4%	35.2%	19.7%	30.7%	100.0%
Industrial	12.8%	34.2%	18.2%	34.7%	100.0%
Institutional	23.2%	36.2%	21.7%	18.9%	100.0%
Lodging	8.9%	38.4%	28.4%	24.2%	100.0%
Not Included	0.0%	100.0%	0.0%	0.0%	100.0%

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

TischlerBise then determined workers per worker household for each household type and summarized the median income by household size. Results are shown below in Figure 14. Knowing the number of workers in each household type is the basis for calculating household income.

Figure 14. Household Type and Size

	1 person	2 person	3 person	4+ person	Total
Workers ¹	11,140	25,429	14,690	23,032	74,291
Worker Households ^{1,2}	8,807	15,948	7,021	9,938	41,714
Workers per Worker Household	1.3	1.6	2.1	2.3	1.8
Median Income (Grand Junction) ³	\$66,000	\$75,400	\$84,800	\$94,200	

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for PUMAs 1001 (2010 PUMA) and 2501 (2020 PUMA).

2. Worker household is a household with at least one occupant in the labor force.

3. City of Grand Junction, Root Policy Research, and HUD 2024 income limits: "2024 Mesa County Area Median Income and Affordable Rents and Home Prices" in Grand Junction Housing Strategy Update 2024.

Household Distribution by Type and Size

Determining the distribution of household types is the next step in the analysis. Because the number of workers or non-workers per household affects affordability, the study distributes households by the current share of household types.

Using data from the American Community Survey 2018-2022 5-year estimates, the number of worker households by each building type is estimated. This requires analyzing the ACS data and determining the share of each household type for each of the building types. The share of households by building type is applied to the corresponding estimate of households by occupation shown in Figure 10. Using the industrial building type as an example, Figure 15 shows the number of households by household type for each occupation. Notice the column on the right side of Figure 15 is identical to the industrial column in Figure 10. (Formula example: Management Occupations: 1.7 worker households (Figure 10) x 12.8% 1-person household (Figure 13) = 0.22

Figure 15. Worker Households by Household Type and Size for an Industrial Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.22	0.58	0.31	0.59	1.70
Business and Financial Operations Occupations	0.03	0.09	0.05	0.09	0.26
Computer and Mathematical Occupations	0.03	0.07	0.04	0.07	0.20
Architecture and Engineering Occupations	0.06	0.16	0.09	0.17	0.48
Life, Physical, and Social Science Occupations	0.01	0.03	0.02	0.03	0.09
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.01	0.02	0.01	0.02	0.06
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.01	0.01	0.01	0.03
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.01	0.03	0.02	0.03	0.09
Food Preparation and Serving Related Occupations	0.01	0.01	0.01	0.01	0.04
Building and Grounds Cleaning and Maintenance Occupations	0.02	0.06	0.03	0.06	0.17
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.01
Sales and Related Occupations	0.10	0.26	0.14	0.26	0.76
Office and Administrative Support Occupations	0.17	0.46	0.25	0.47	1.34
Farming, Fishing, and Forestry Occupations	0.04	0.11	0.06	0.11	0.32
Construction and Extraction Occupations	0.34	0.91	0.49	0.92	2.66
Installation, Maintenance, and Repair Occupations	0.08	0.20	0.11	0.20	0.59
Production Occupations	0.23	0.60	0.32	0.61	1.77
Transportation and Material Moving Occupations	0.30	0.80	0.43	0.81	2.34
Total	1.66	4.40	2.39	4.46	12.90

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Household Income

The final step in estimating household income requires applying average compensation from Figure 11 to the number of workers per worker household from Figure 14. Shown in Figure 16 are estimates of household income by household type for industrial occupations.

Figure 16: Household Incomes by Type and Occupation for *Industrial Building Prototype*

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$154,425	\$190,061	\$249,455	\$273,213	\$213,819
Business and Financial Operations Occupations	\$129,437	\$159,308	\$209,091	\$229,005	\$179,221
Computer and Mathematical Occupations	\$93,003	\$114,465	\$150,236	\$164,544	\$128,774
Architecture and Engineering Occupations	\$118,501	\$145,847	\$191,425	\$209,656	\$164,078
Life, Physical, and Social Science Occupations	\$53,676	\$66,063	\$86,708	\$94,966	\$74,321
Community and Social Service Occupations	\$0	\$0	\$0	\$0	\$0
Legal Occupations	\$0	\$0	\$0	\$0	\$0
Education, Training, and Library Occupations	\$61,139	\$75,248	\$98,763	\$108,169	\$84,654
Arts, Design, Entertainment, Sports, and Media Occupations	\$24,461	\$30,106	\$39,514	\$43,277	\$33,869
Healthcare Practitioners and Technical Occupations	\$0	\$0	\$0	\$0	\$0
Healthcare Support Occupations	\$0	\$0	\$0	\$0	\$0
Protective Service Occupations	\$72,652	\$89,417	\$117,360	\$128,538	\$100,595
Food Preparation and Serving Related Occupations	\$22,203	\$27,326	\$35,866	\$39,282	\$30,742
Building and Grounds Cleaning and Maintenance Occupations	\$31,607	\$38,901	\$51,058	\$55,921	\$43,764
Personal Care and Service Occupations	\$48,759	\$60,011	\$78,764	\$86,265	\$67,512
Sales and Related Occupations	\$129,108	\$158,902	\$208,559	\$228,422	\$178,765
Office and Administrative Support Occupations	\$64,291	\$79,128	\$103,855	\$113,746	\$89,019
Farming, Fishing, and Forestry Occupations	\$41,011	\$50,475	\$66,248	\$72,557	\$56,784
Construction and Extraction Occupations	\$70,005	\$86,160	\$113,085	\$123,855	\$96,930
Installation, Maintenance, and Repair Occupations	\$104,064	\$128,079	\$168,103	\$184,113	\$144,089
Production Occupations	\$64,931	\$79,915	\$104,889	\$114,878	\$89,904
Transportation and Material Moving Occupations	\$76,073	\$93,629	\$122,888	\$134,591	\$105,332

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Income Limits

Affordability, in this study, is defined using official household income limits produced by the United States Department of Housing and Urban Development (HUD) for fiscal year 2024 for Mesa County. Area Median Income (AMI) for a 3-person household is \$84,800. As shown in Figure 17, income limits are based on the number of persons living in the household. Using these thresholds, it is possible to determine the number of households at each income level for each building type.

Figure 17: Household Income Limits

Household Income Level	% AMI	1-Person	2-Person	3-Person	4-Person	5-Person	6-Person
20% AMI	20%	\$13,200	\$15,080	\$16,960	\$18,840	\$20,360	\$21,860
30% AMI	30%	\$19,800	\$22,620	\$25,440	\$28,260	\$30,540	\$32,790
40% AMI	40%	\$26,400	\$30,160	\$33,920	\$37,680	\$40,720	\$43,720
45% AMI	45%	\$29,700	\$33,930	\$38,160	\$42,390	\$45,810	\$49,185
50% AMI	50%	\$33,000	\$37,700	\$42,400	\$47,100	\$50,900	\$54,650
55% AMI	55%	\$36,300	\$41,470	\$46,640	\$51,810	\$55,990	\$60,115
60% AMI	60%	\$39,600	\$45,240	\$50,880	\$56,520	\$61,080	\$65,580
70% AMI	70%	\$46,200	\$52,780	\$59,360	\$65,940	\$71,260	\$76,510
80% AMI	80%	\$52,800	\$60,320	\$67,840	\$75,360	\$81,440	\$87,440
100% AMI	100%	\$66,000	\$75,400	\$84,800	\$94,200	\$101,800	\$109,300
120% AMI	120%	\$79,200	\$90,480	\$101,760	\$113,040	\$122,160	\$131,160

Source: City of Grand Junction, Root Policy Research, and HUD 2024 income limits: "2024 Mesa County Area Median Income and Affordable Rents and Home Prices" in Grand Junction Housing Strategy Update 2024.

Households by Income Level

Shown below in Figure 18 are the percent of worker households in the industrial building prototype below the area median income for each household size/type.

Figure 18: Percent of Median Income by Household Type and Occupation for Industrial Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Management Occupations	234%	252%	294%	290%
Business and Financial Operations Occupations	196%	211%	247%	243%
Computer and Mathematical Occupations	141%	152%	177%	175%
Architecture and Engineering Occupations	180%	193%	226%	223%
Life, Physical, and Social Science Occupations	81%	88%	102%	101%
Community and Social Service Occupations	0%	0%	0%	0%
Legal Occupations	0%	0%	0%	0%
Education, Training, and Library Occupations	93%	100%	116%	115%
Arts, Design, Entertainment, Sports, and Media Occupations	37%	40%	47%	46%
Healthcare Practitioners and Technical Occupations	0%	0%	0%	0%
Healthcare Support Occupations	0%	0%	0%	0%
Protective Service Occupations	110%	119%	138%	136%
Food Preparation and Serving Related Occupations	34%	36%	42%	42%
Building and Grounds Cleaning and Maintenance Occupations	48%	52%	60%	59%
Personal Care and Service Occupations	74%	80%	93%	92%
Sales and Related Occupations	196%	211%	246%	242%
Office and Administrative Support Occupations	97%	105%	122%	121%
Farming, Fishing, and Forestry Occupations	62%	67%	78%	77%
Construction and Extraction Occupations	106%	114%	133%	131%
Installation, Maintenance, and Repair Occupations	158%	170%	198%	195%
Production Occupations	98%	106%	124%	122%
Transportation and Material Moving Occupations	115%	124%	145%	143%

Red indicates a value less than 100% (reflecting the median household income).

Based on the median incomes by household size and average incomes by occupation, the number of worker households generated by each nonresidential building type at each household income level (e.g., 50%, 60%, 80%, and 100% AMI) can be determined.

For example, worker households for the industrial building prototype of 20,000 square feet with household incomes between 60 and 80 percent of AMI are shown in Figure 19. The right column shows .35 households generated by the industrial building prototype falling within this income level. (See Appendix B for a series of tables for each nonresidential building type by household income level.)

Figure 19: 80% AMI Worker Households by Household Type and Occupation for Industrial Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.03	0.00	0.03
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.04	0.11	0.06	0.11	0.32
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.11	0.09	0.11	0.35

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 20 below includes the number of households by income level for each building prototype (top half), and the percentage of households by income level for each building type (bottom half). This represents the share of households by building prototype in comparison to the median income for Mesa County.

Figure 20: Worker Households by Income Level (per 20,000 sq. ft. building prototype)

Households by Income Level ¹	BUILDING/LAND USE TYPE (20,000 sq. ft. building)						
	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
	50% AMI and Below	4.73	20.85	0.50	3.64	0.09	0.01
60% AMI (Over 50 to 60% AMI)	5.89	26.00	1.33	0.24	0.12	0.04	2.65
80% AMI (Over 60 to 80% AMI)	6.20	27.26	4.88	2.47	0.35	0.10	3.39
100% AMI (Over 80 to 100% AMI)	3.80	16.74	5.24	2.45	0.47	0.14	0.00
120% AMI (Over 100 to 120% AMI)	0.10	0.45	4.85	12.13	2.73	0.82	0.10
120%+ AMI	2.87	12.63	19.39	10.89	9.15	2.69	2.12
Total Worker Households	23.59	103.93	36.19	31.82	12.91	3.80	10.32

Percentage of Households by Income Level ¹	BUILDING/LAND USE TYPE (20,000 sq. ft. building)						
	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
	50% AMI and Below	20.1%	20.1%	1.4%	11.4%	0.7%	0.3%
60% AMI (Over 50 to 60% AMI)	25.0%	25.0%	3.7%	0.8%	0.9%	1.1%	25.7%
80% AMI (Over 60 to 80% AMI)	26.3%	26.2%	13.5%	7.8%	2.7%	2.6%	32.9%
100% AMI (Over 80 to 100% AMI)	16.1%	16.1%	14.5%	7.7%	3.6%	3.7%	0.0%
120% AMI (Over 100 to 120% AMI)	0.4%	0.4%	13.4%	38.1%	21.2%	21.6%	1.0%
120%+ AMI	12.2%	12.2%	53.6%	34.2%	70.9%	70.8%	20.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Commuter Adjustment

As noted above, an adjustment is recommended for commuters living outside of Grand Junction but working within the city limits as it is unreasonable to assume all new workers will live in Grand Junction. Using commuting data from the U.S. Census Bureau’s online web application, OnTheMap, TischlerBise determined 65 percent of Grand Junction’s workers live outside the city. To preserve the existing relationship between commuters and non-commuters, households are reduced to 35 percent—the share of Grand Junction’s workers who live in the city.

Figure 21: Worker Households in Grand Junction by Income Level (per 20,000 sq. ft. building prototype)

Resident Workers (Local %) ¹	BUILDING/LAND USE TYPE (20,000 sq. ft. building)						
	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
	35.00%						
Households by Income Level ²	BUILDING/LAND USE TYPE (20,000 sq. ft. building)						
50% AMI and Below	1.66	7.30	0.18	1.27	0.03	0.00	0.72
60% AMI (Over 50 to 60% AMI)	2.06	9.10	0.47	0.08	0.04	0.01	0.93
80% AMI (Over 60 to 80% AMI)	2.17	9.54	1.71	0.86	0.12	0.04	1.19
100% AMI (Over 80 to 100% AMI)	1.33	5.86	1.83	0.86	0.16	0.05	0.00
120% AMI (Over 100 to 120% AMI)	0.04	0.16	1.70	4.25	0.96	0.29	0.04
120%+ AMI	1.00	4.42	6.79	3.81	3.20	0.94	0.74
Total	8.26	36.38	12.68	11.13	4.51	1.33	3.62

1. Grand Junction residents working in city limits; U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Qtr Employment, 2nd Qtr of 2021).

2. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

HOUSING DEMAND

To determine the housing need per 1,000 square feet of building area (to be used in the linkage fee calculation), worker households generated per 20,000 square feet of building area, shown above in Figure 21, are converted to households per 1,000 square feet by dividing household estimates by 20. Figure 22 below includes estimates for households by income level and industry (adjusted for resident workers) for each additional 1,000 square feet of building floor area.

Figure 22: Housing Demand in Grand Junction per 1,000 Square Feet of Building Area

	BUILDING/LAND USE TYPE (per 1,000 sq. ft.)						
	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
Housing Demand per 1,000 Sq. Ft. of Building Area¹							
50% AMI and Below	0.0830	0.3650	0.0090	0.0635	0.0015	0.0000	0.0360
60% AMI (Over 50 to 60% AMI)	0.1030	0.4550	0.0235	0.0040	0.0020	0.0005	0.0465
80% AMI (Over 60 to 80% AMI)	0.1085	0.4770	0.0855	0.0430	0.0060	0.0020	0.0595
100% AMI (Over 80 to 100% AMI)	0.0665	0.2930	0.0915	0.0430	0.0080	0.0025	0.0000
120% AMI (Over 100 to 120% AMI)	0.0020	0.0080	0.0850	0.2125	0.0480	0.0145	0.0020
120%+ AMI	0.0500	0.2210	0.3395	0.1905	0.1600	0.0470	0.0370
Total	0.4130	1.8190	0.6340	0.5565	0.2255	0.0665	0.1810

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis. Adjusted for resident workers.

HOUSING PROTOTYPES

The next step in the analysis is to determine the applicable types of housing units to meet the needs at each income level. The 2024 Grand Junction Housing Strategy Update and City staff provided direction on appropriate housing prototypes by income level per current City housing policy and programs.

- For 50% (50% and below) and 60% (over 50 to 60%) AMI, the analysis assumes a two-bedroom rental apartment.
- For 80% (over 60 to 80%) and 100% (over 80 to 100%) AMI, the housing prototype is a three-bedroom, owner-occupied, single family housing unit.
- The analysis **excludes** incomes at 120% AMI and above (over 100 to 120% and above), because current policies are not in place to offer housing assistance to these households with the linkage fee.

HOUSING COSTS

Several multifamily rental development projects are used to derive an average development cost per unit to represent the cost to build affordable units in the City of Grand Junction. Mother Teresa’s Place and The Current are all affordable (60% AMI or less); The Terminal and Liberty Apartments have not yet begun construction and are planned to be partially affordable (90% AMI); and Market Street and Struthers are market rate.

For owner-occupied units, the analysis assumes a median sales price of \$391,500 from the 2024 median sale price for all housing units in Mesa County from the 2024 Grand Junction Housing Strategy Update.

Figure 23: Multifamily Rental Unit Development Cost

Project	Year	Total Development Cost	Number of Units	Cost per Unit
Mother Teresa's Place	2023	\$14,457,857	40	\$361,446
The Current	2024	\$26,393,832	54	\$488,775
The Terminal	2024 estimate	\$35,960,234	106	\$339,247
Liberty Apartments	2024 estimate	\$20,667,214	72	\$287,045
Market Street	2022	\$23,976,000	72	\$333,000
Struthers	2022	\$16,992,000	48	\$354,000
The Junction	2022	\$82,898,639	256	\$323,823
Total / Weighted Average		\$221,345,776	648	\$341,583
Weighted Cost per Unit (Rounded)				\$342,000

Source: City of Grand Junction (for City and other local projects); Grand Junction Housing Authority

AFFORDABILITY GAP

The next step in the analysis is the difference between the cost of housing and the amount households can afford to pay for housing. This is known as the affordability gap. This analysis determines the affordability gap at 50%, 60%, 80% and 100% AMI income levels

As noted, the analysis uses a two-bedroom apartment for 50% and 60% AMI households. For rental prototypes, the affordability gap is the difference between the total development cost and private debt expense—debt supported by rental income.

For 80% and 100% AMI households, the analysis uses a three-bedroom single family housing unit. The affordability gap for ownership prototypes is the difference between the median sales price and the supported sales price based on 2024 Mesa County Area Median Income and Affordable Rents and Home Prices. See Figure 24.

Figure 24. Maximum Affordable Rents and Sale Prices

Housing Unit Size	MAXIMUM AFFORDABLE							
	Monthly Rent	Sales Price	Monthly Rent	Sales Price	Monthly Rent	Sales Price	Monthly Rent	Sales Price
	50% AMI		60% AMI		80% AMI		100% AMI	
1-Person [0 Bdrm]	\$825	\$108,770	\$990	\$130,524	\$1,320	\$174,032	\$1,650	\$217,540
2-Person [1 Bdrm]	\$943	\$124,261	\$1,131	\$149,114	\$1,508	\$198,818	\$1,885	\$248,523
3-Person [2 Bdrm]	\$1,060	\$139,753	\$1,272	\$167,703	\$1,696	\$223,605	\$2,120	\$279,506
4-Person [3 Bdrm]	\$1,178	\$155,244	\$1,413	\$186,293	\$1,884	\$248,391	\$2,355	\$310,489
5-Person [3-4 Bdrm]	\$1,273	\$167,769	\$1,527	\$201,323	\$2,036	\$268,431	\$2,545	\$335,539
6-Person [4 Bdrm]	\$1,366	\$180,130	\$1,640	\$216,156	\$2,186	\$288,207	\$2,733	\$360,259

Source: City of Grand Junction, Root Policy Research, and HUD 2024 income limits: "2024 Mesa County Area Median Income and Affordable Rents and Home Prices" in Grand Junction Housing Strategy Update 2024.

Rental Prototype

To estimate maximum housing costs for rental prototypes, the analysis assumes 30 percent of household income used for housing costs—less utilities paid by the tenant. Shown below in Figure 25, the affordability gap analysis for rental prototypes includes annual rental income, vacancy loss, operating expenses, property taxes, and replacement reserves. Combined, these provide the net operating income used to support private debt. Assuming a debt coverage ratio of 1.2, net operating income at each AMI level is calculated as shown to support debt service on a 30-year loan. For 50% AMI households, the net operating income supports annual debt service of \$4,510—a present value of \$62,100 on a 30-year loan. In other words, this is the maximum amount the income groups can afford to spend (based on the guidelines), which produce a revenue stream for development of the property.

The revenue stream indicated above is insufficient to cover the development costs. Assuming a total development cost of \$342,000 per unit for the rental prototype, the affordability gap for 50% AMI households is \$279,900 per unit and for 60% AMI households, \$263,900 per unit.

Figure 25: Rental Prototype Affordability Gap

Affordability Gap: Rental Units (per Unit)		50% AMI (Rental)	60% AMI (Rental)
<u>Income Parameters</u>			
Mesa County 3-Person AMI ¹		\$84,800	\$84,800
Household Income (at Respective %AMI) ¹		\$42,400	\$50,880
<u>Affordable 2-Bedroom Unit</u>			
Maximum Monthly Rent ²	30%	\$1,060	\$1,272
Utility Allowance ¹		(\$240)	(\$240)
Net Monthly Rent		\$820	\$1,032
<u>Operating Income</u>			
Annual Rental Income		\$9,840	\$12,384
Other Income		\$0	\$0
Annual Rental Income		\$9,840	\$12,384
<u>Operating Expenditures</u>			
Vacancy Loss ³	5%	(\$492)	(\$619)
Operating Expenses ⁴	40%	(\$3,936)	(\$4,954)
Total Expenditures		(\$4,428)	(\$5,573)
Net Operating Income (NOI) (Annual)		\$5,412	\$6,811
Supportable Debt Service ⁵	1.2	(\$4,510)	(\$5,676)
Cash Flow After Debt		\$902	\$1,135
<u>Affordability Gap</u>			
Development Cost ⁶		\$342,000	\$342,000
Total Development Cost		\$342,000	\$342,000
Supported Private Debt Expense ⁷	6.00%	\$62,100	\$78,100
Affordability Gap		(\$279,900)	(\$263,900)

1. 2024 Income Limit and Maximum Rent Tables for Mesa County, Colorado, CHFA (HUD Effective Date April 1, 2024).
2. 2024 Income Limit and Maximum Rent Tables for Mesa County, Colorado, CHFA (HUD Effective Date April 1, 2024). (Based on 30% household income available for rent.)
3. Industry standard.
4. Estimated percent of rental income for operations, maintenance, taxes, insurance, and reserves.
5. Industry standard of debt coverage ratio of 1.2 applied to NOI.
6. City of Grand Junction and Grand Junction Housing Authority
7. Present value of supportable debt service (from above) for a 30-year loan; fall 2024 general apartment loan interest rate.

Ownership Prototype

For ownership units, the analysis assumes the maximum affordable housing price as shown in Figure 24 and repeated in Figure 26. With a median sales price of \$391,500 for three-bedroom single family housing unit, the affordability gap for 80% AMI households is \$167,895 and \$111,994 for 100% AMI households.

Figure 26: Ownership Prototype Affordability Gap

Affordability Gap: Ownership Units	80% AMI (Owner)	100% AMI (Owner)
Mesa County 3-Person AMI ¹	\$84,800	\$84,800
Household Income (at Respective %AMI) ¹	\$67,840	\$84,800
<i>% of Median</i>	<i>80%</i>	<i>100%</i>
<u>Affordable Sale Price</u>		
Affordable Home Price ¹	\$223,605	\$279,506
Median Purchase Price: All Homes ²	\$391,500	\$391,500
<u>Affordability Gap</u>		
Median Sales Price: Mesa Co. 3-Bdrm SF House	\$391,500	\$391,500
Supported Sale Price	\$223,605	\$279,506
Affordability Gap³	(\$167,895)	(\$111,994)

1. City of Grand Junction, Root Policy Research, and HUD 2024 income limits: "2024 Mesa County Area Median Income and Affordable Rents and Home Prices" in Grand Junction Housing Strategy Update 2024.

2. City of Grand Junction, Root Policy Research, and HUD 2024 income limits: "2024 Mesa County Area Median Income and Affordable Rents and Home Prices" in Grand Junction Housing Strategy Update 2024. Reflects detached and attached for-sale homes.

3. A negative figure shown in (parentheses), reflects the gap between the cost to purchase a house and the resources available; a positive figure indicates that the income assumed is sufficient to purchase a housing unit.

Figure 27 provides a summary of calculated affordability gaps, by housing prototype and income level.

Figure 27: Summary of Assumptions and Affordability Gaps by Housing Prototype

Income	Prototype	Bedrooms	Type	Housing Cost Affordable at Income Level
50% AMI (Rental)	Rental	2	Apartment	\$820 / Month
60% AMI (Rental)	Rental	2	Apartment	\$1,032 / Month
80% AMI (Owner)	Ownership	3	Single Family	\$223,605
100% AMI (Owner)	Ownership	3	Single Family	\$279,506

Income	Prototype	Development Cost ¹	Median Sales Price ²	Supported Financing ³	Affordability Gap ^{4,5}
50% AMI (Rental)	Rental	\$342,000		\$62,100	(\$279,900)
60% AMI (Rental)	Rental	\$342,000		\$78,100	(\$263,900)
80% AMI (Owner)	Ownership		\$391,500	\$223,605	(\$167,895)
100% AMI (Owner)	Ownership		\$391,500	\$279,506	(\$111,994)

1. City of Grand Junction and Grand Junction Housing Authority
2. City of Grand Junction, Root Policy Research, and HUD 2024 income limits: "2024 Mesa County Area Median Income and Affordable Rents and Home Prices" in Grand Junction Housing Strategy Update 2024. Reflects detached and attached for-sale homes.
3. See supporting figures in report.
4. Difference between Development Cost or Median Sales Price and Supported Financing.
5. A negative figure shown in (parentheses), reflects the gap between the cost of developing or purchasing a unit and the resources available; a positive figure indicates that the income assumed is sufficient.

MAXIMUM SUPPORTABLE AFFORDABLE HOUSING LINKAGE FEES

To calculate maximum supportable affordable housing linkage fees, housing demand per square foot of building area is multiplied by the affordability gap estimates. An additional adjustment is needed to account for the City’s share of funding for affordable housing projects. Based on recent City participation in affordable housing development projects, an estimate of 10 percent City funding is assumed in the affordable housing linkage fee calculation.

Figure 28 repeats the housing demand in the City of Grand Junction per 1,000 square feet by nonresidential building type (repeated from Figure 22).

Figure 28: Housing Demand in Grand Junction per 1,000 Square Feet of Building Area

Housing Demand per 1,000 Sq. Ft. of Building Area ¹	BUILDING/LAND USE TYPE (per 1,000 sq. ft.)						
	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
	50% AMI and Below	0.0830	0.3650	0.0090	0.0635	0.0015	0.0000
60% AMI (Over 50 to 60% AMI)	0.1030	0.4550	0.0235	0.0040	0.0020	0.0005	0.0465
80% AMI (Over 60 to 80% AMI)	0.1085	0.4770	0.0855	0.0430	0.0060	0.0020	0.0595
100% AMI (Over 80 to 100% AMI)	0.0665	0.2930	0.0915	0.0430	0.0080	0.0025	0.0000
120% AMI (Over 100 to 120% AMI)	0.0020	0.0080	0.0850	0.2125	0.0480	0.0145	0.0020
120%+ AMI	0.0500	0.2210	0.3395	0.1905	0.1600	0.0470	0.0370
Total	0.4130	1.8190	0.6340	0.5565	0.2255	0.0665	0.1810

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis. Adjusted for resident workers.

Because current City policy and this linkage fee does not intend to assist households with incomes above 100 percent of area median income, the fee schedule in Figure 29 excludes demand from this AMI level.

Maximum supportable affordable housing linkage fees are shown in Figure 29. Based on the findings in the study, this is the maximum supportable fee amount based on the nexus between demand for affordable housing and costs (to the City of Grand Junction) to provide housing in Grand Junction. Affordable housing linkage fees may be adopted at levels lower than the maximum supportable fees.

Figure 29: Maximum Supportable Affordable Housing Linkage Fees by Land Use

Household Income Level	Housing Prototype	Affordability Gap per Unit	Estimated City Funding % Share ²	Linkage Fees Per 1,000 Sq. Ft. ¹						
				Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
				10%						
50% AMI (Rental)	Rental	\$279,900	\$27,990	\$2,323	\$10,216	\$252	\$1,777	\$42	\$0	\$1,008
60% AMI (Rental)	Rental	\$263,900	\$26,390	\$2,718	\$12,007	\$620	\$106	\$53	\$13	\$1,227
80% AMI (Owner)	Ownership	\$167,895	\$16,790	\$1,822	\$8,009	\$1,436	\$722	\$101	\$34	\$999
100% AMI (Owner)	Ownership	\$111,994	\$11,199	\$745	\$3,281	\$1,025	\$482	\$90	\$28	\$0
Total				\$7,608	\$33,513	\$3,333	\$3,087	\$286	\$75	\$3,234
										<i>Per Lodging Room³</i>
										<i>Per RV Park Site⁴</i>
										\$1,940
										\$174

1. TischlerBise analysis (housing demand per 1,000 square feet of building area multiplied by affordability gap); assumes 35% worker households in Grand Junction.

2. See supporting figures.

3. Converted from square feet based on 600 square feet of gross building area per room for lodging.

4. RV Park jobs per site of .05 multiplied by Lodging land use fee per job (\$3,477). See Appendix C for further detail.

Figure 30 provides the affordable housing linkage fee *per job* for each land use prototype, calculated by dividing the linkage fee per 1,000 sq. ft. by the average jobs per 1,000 sq. ft. (E.g., Retail/Commercial is \$7,608 per 1,000 sq. ft. divided by 2.12 jobs per 1,000 sq. ft. = \$3,589 per job (rounded)).

Figure 30. Maximum Supportable Affordable Housing Linkage Fees per Job

	Retail / Commercial	Convenience Commercial	Office	Institutional	Industrial	Warehousing	Lodging
Linkage Fee per 1,000 Sq. Ft.	\$7,608	\$33,513	\$3,333	\$3,087	\$286	\$75	\$3,234
Jobs per 1,000 Sq. Ft.	2.12	9.35	3.26	2.86	1.16	0.34	0.93
Linkage Fee per Job	\$3,589	\$3,584	\$1,022	\$1,079	\$247	\$221	\$3,477

APPENDIX A. GLOSSARY

Workers: Full and Part-time employees

Worker Household: Households with at least one worker

Occupation: A person's job or the type of work they do. Examples include a physical therapist, cashier, security guard, or electrician. The analysis uses “major group level” (per Standard Occupational Classification (SOC) (Bureau of Labor Statistics)).

Industry: The business activity of a person's employer or, if self-employed, of their company or business. Examples include a grocery store, hospital, bank, or aircraft manufacturer. Industries are classified by NAICS codes. *An industry includes people with different occupations who work for the same type of business.*

Sources: Bureau of Labor Statistics (<https://www.bls.gov/cps/definitions.htm>); U.S. Census (<https://www.census.gov/glossary/>)

APPENDIX B: SUPPORTING DATA

Nonresidential employee demand factor supporting data is provided below:

Figure 31. Employee Factors

ITE Code	Land Use Group	Demand Unit	Avg Wkdy Trip Ends Per Demand Unit ¹	Avg Wkdy Trip Ends Per Employee ¹	Employees Per Demand Unit	Square Feet Per Employee
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
310	Hotel	room	7.99	14.34	0.56	na
310	Hotel (assume 600 sf per room)	1,000 Sq Ft			0.93	na
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
710	General Office (avg size)	1,000 Sq Ft	10.84	3.33	3.26	307
820	Shopping Center (avg size ~500ksf)	1,000 Sq Ft	37.01	17.42	2.12	471
934	Fast Food	1,000 Sq Ft	50.94	5.45	9.35	107

1. *Trip Generation*, Institute of Transportation Engineers (ITE), 11th Edition (2021).

Figure 32. RV Park Employee Factor

Median RV Park/Campground Profile

Employees (Full- and Part-Time)	5
Number of Sites	92
Employees per Site	0.05

Figures reflect medians from the Industry Benchmarking Survey conducted by ARVC and Readex Research in 2023.

Source: National Association of RV Parks & Campgrounds (ARVC), "2023 Outdoor Hospitality Industry Benchmarking Report."

APPENDIX C. BUILDING PROTOTYPE DETAIL

Included in the appendix are the following tables for each building prototype:

1. Income by Occupation
2. Household Distribution
3. Household Income
4. Percent of Median Income by Household Type and Occupation
5. Worker Households per 20,000 sq. ft. by AMI Level
 - a. 50% and Below
 - b. 60%
 - c. 80%
 - d. 100%
 - e. 120%
 - f. 120% and over

RETAIL / COMMERCIAL

Figure 33: Income by Occupation for Retail/Commercial Building Prototype

Occupation Distribution	Grand Junction	Occup. as Share	Average Income per HH (rounded)	Wrkr Households per 20,000 SF ³
	2024 Average Income ¹	of Retail Workers ²		Total Wrkr Households
Management Occupations	\$63,532	4.3%	\$2,700	1.0
Business and Financial Operations Occupations	\$59,150	2.9%	\$1,730	0.7
Computer and Mathematical Occupations	\$68,170	0.1%	\$80	0.0
Architecture and Engineering Occupations	\$0	0.0%	\$0	0.0
Life, Physical, and Social Science Occupations	\$61,152	0.5%	\$300	0.1
Community and Social Service Occupations	\$0	0.0%	\$0	0.0
Legal Occupations	\$0	0.0%	\$0	0.0
Educational Instruction and Library Occupations	\$26,414	0.6%	\$150	0.1
Arts, Design, Entertainment, Sports, and Media Occupations	\$23,504	3.3%	\$780	0.8
Healthcare Practitioners and Technical Occupations	\$105,514	1.6%	\$1,700	0.4
Healthcare Support Occupations	\$67,287	0.0%	\$30	0.0
Protective Service Occupations	\$13,791	1.3%	\$180	0.3
Food Preparation and Serving Related Occupations	\$20,805	22.4%	\$4,660	5.3
Building and Grounds Cleaning and Maintenance Occupations	\$32,002	2.0%	\$630	0.5
Personal Care and Service Occupations	\$17,318	2.4%	\$420	0.6
Sales and Related Occupations	\$34,081	29.8%	\$10,160	7.0
Office and Administrative Support Occupations	\$21,532	9.5%	\$2,040	2.2
Farming, Fishing, and Forestry Occupations	\$36,835	0.2%	\$80	0.0
Construction and Extraction Occupations	\$28,527	0.6%	\$170	0.1
Installation, Maintenance, and Repair Occupations	\$62,439	3.1%	\$1,950	0.7
Production Occupations	\$31,658	2.8%	\$900	0.7
Transportation and Material Moving Occupations	\$27,032	12.5%	\$3,370	2.9
Weighted Average Annual Wage		100.0%	\$32,030	23.6

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 34: Household Distribution for Retail/Commercial Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.15	0.32	0.20	0.33	1.00
Business and Financial Operations Occupations	0.10	0.22	0.14	0.23	0.69
Computer and Mathematical Occupations	0.00	0.01	0.01	0.01	0.03
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.02	0.04	0.02	0.04	0.11
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.02	0.04	0.03	0.05	0.14
Arts, Design, Entertainment, Sports, and Media Occupatio	0.12	0.25	0.16	0.26	0.79
Healthcare Practitioners and Technical Occupations	0.06	0.12	0.08	0.13	0.38
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.01
Protective Service Occupations	0.05	0.10	0.06	0.10	0.31
Food Preparation and Serving Related Occupations	0.79	1.66	1.08	1.76	5.29
Building and Grounds Cleaning and Maintenance Occupat	0.07	0.15	0.09	0.15	0.47
Personal Care and Service Occupations	0.08	0.18	0.12	0.19	0.57
Sales and Related Occupations	1.05	2.21	1.43	2.34	7.04
Office and Administrative Support Occupations	0.33	0.70	0.45	0.74	2.23
Farming, Fishing, and Forestry Occupations	0.01	0.02	0.01	0.02	0.05
Construction and Extraction Occupations	0.02	0.04	0.03	0.05	0.14
Installation, Maintenance, and Repair Occupations	0.11	0.23	0.15	0.25	0.74
Production Occupations	0.10	0.21	0.14	0.22	0.67
Transportation and Material Moving Occupations	0.44	0.92	0.60	0.98	2.94
Total	3.52	7.42	4.80	7.85	23.60

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 35: Household Income for Retail/Commercial Building Prototype

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$82,591	\$101,651	\$133,417	\$146,123	\$114,357
Business and Financial Operations Occupations	\$76,895	\$94,640	\$124,215	\$136,045	\$106,470
Computer and Mathematical Occupations	\$88,621	\$109,072	\$143,157	\$156,791	\$122,706
Architecture and Engineering Occupations	\$0	\$0	\$0	\$0	\$0
Life, Physical, and Social Science Occupations	\$79,498	\$97,843	\$128,419	\$140,650	\$110,074
Community and Social Service Occupations	\$0	\$0	\$0	\$0	\$0
Legal Occupations	\$0	\$0	\$0	\$0	\$0
Education, Training, and Library Occupations	\$34,338	\$42,262	\$55,468	\$60,751	\$47,544
Arts, Design, Entertainment, Sports, and Media Occupations	\$30,556	\$37,607	\$49,359	\$54,060	\$42,308
Healthcare Practitioners and Technical Occupations	\$137,168	\$168,822	\$221,579	\$242,681	\$189,924
Healthcare Support Occupations	\$87,473	\$107,659	\$141,302	\$154,759	\$121,116
Protective Service Occupations	\$17,929	\$22,066	\$28,962	\$31,720	\$24,824
Food Preparation and Serving Related Occupations	\$27,046	\$33,287	\$43,690	\$47,851	\$37,448
Building and Grounds Cleaning and Maintenance Occupations	\$41,603	\$51,203	\$67,205	\$73,605	\$57,604
Personal Care and Service Occupations	\$22,514	\$27,710	\$36,369	\$39,832	\$31,173
Sales and Related Occupations	\$44,305	\$54,529	\$71,570	\$78,386	\$61,345
Office and Administrative Support Occupations	\$27,991	\$34,451	\$45,216	\$49,523	\$38,757
Farming, Fishing, and Forestry Occupations	\$47,886	\$58,936	\$77,354	\$84,721	\$66,303
Construction and Extraction Occupations	\$37,084	\$45,642	\$59,906	\$65,611	\$51,348
Installation, Maintenance, and Repair Occupations	\$81,171	\$99,902	\$131,122	\$143,610	\$112,390
Production Occupations	\$41,155	\$50,652	\$66,481	\$72,813	\$56,984
Transportation and Material Moving Occupations	\$35,141	\$43,251	\$56,767	\$62,173	\$48,657

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Figure 36: Percent of Median Income by Household Type and Occupation for Retail/Commercial Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Percent of Median Income by Occupation				
Management Occupations	125%	135%	157%	155%
Business and Financial Operations Occupations	117%	126%	146%	144%
Computer and Mathematical Occupations	134%	145%	169%	166%
Architecture and Engineering Occupations	0%	0%	0%	0%
Life, Physical, and Social Science Occupations	120%	130%	151%	149%
Community and Social Service Occupations	0%	0%	0%	0%
Legal Occupations	0%	0%	0%	0%
Education, Training, and Library Occupations	52%	56%	65%	64%
Arts, Design, Entertainment, Sports, and Media Occupations	46%	50%	58%	57%
Healthcare Practitioners and Technical Occupations	208%	224%	261%	258%
Healthcare Support Occupations	133%	143%	167%	164%
Protective Service Occupations	27%	29%	34%	34%
Food Preparation and Serving Related Occupations	41%	44%	52%	51%
Building and Grounds Cleaning and Maintenance Occupations	63%	68%	79%	78%
Personal Care and Service Occupations	34%	37%	43%	42%
Sales and Related Occupations	67%	72%	84%	83%
Office and Administrative Support Occupations	42%	46%	53%	53%
Farming, Fishing, and Forestry Occupations	73%	78%	91%	90%
Construction and Extraction Occupations	56%	61%	71%	70%
Installation, Maintenance, and Repair Occupations	123%	132%	155%	152%
Production Occupations	62%	67%	78%	77%
Transportation and Material Moving Occupations	53%	57%	67%	66%

Red indicates a value less than 100% (reflecting the median household income).

Figure 37: Worker Households per 20,000 sq. ft. by AMI Level for Retail/Commercial Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
50% AMI and Below					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.12	0.25	0.00	0.00	0.37
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.05	0.10	0.06	0.10	0.31
Food Preparation and Serving Related Occupations	0.79	1.66	0.00	0.00	2.45
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.08	0.18	0.12	0.19	0.57
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.33	0.70	0.00	0.00	1.03
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	1.37	2.89	0.18	0.29	4.73

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
60% AMI (Over 50 to 60% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.02	0.04	0.00	0.00	0.06
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.16	0.26	0.42
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	1.08	1.76	2.84
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.45	0.74	1.19
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.02	0.00	0.00	0.00	0.02
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.44	0.92	0.00	0.00	1.36
Total	0.48	0.96	1.69	2.76	5.89

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 38: Worker Households per 20,000 sq. ft. by AMI Level for Retail/Commercial Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.03	0.05	0.08
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.07	0.15	0.09	0.15	0.46
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	1.05	2.21	0.00	0.00	3.26
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.01	0.02	0.00	0.00	0.03
Construction and Extraction Occupations	0.00	0.04	0.03	0.05	0.12
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.10	0.21	0.14	0.22	0.67
Transportation and Material Moving Occupations	0.00	0.00	0.60	0.98	1.58
Total	1.23	2.63	0.89	1.45	6.20

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
100% AMI (Over 80 to 100% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	1.43	2.34	3.77
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.01	0.02	0.03
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	1.44	2.36	3.80

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 39: Worker Households per 20,000 sq. ft. by AMI Level for Retail/Commercial Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120% AMI (Over 100 to 120% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.10	0.00	0.00	0.00	0.10
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.10	0.00	0.00	0.00	0.10

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120%+ AMI					
Management Occupations	0.15	0.32	0.20	0.33	1.00
Business and Financial Operations Occupations	0.00	0.22	0.14	0.23	0.59
Computer and Mathematical Occupations	0.00	0.01	0.01	0.01	0.03
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.02	0.04	0.02	0.04	0.12
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.06	0.12	0.08	0.13	0.39
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.11	0.23	0.15	0.25	0.74
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.34	0.94	0.60	0.99	2.87

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

CONVENIENCE COMMERCIAL

Figure 40: Income by Occupation for Convenience Commercial Building Prototype

Occupation Distribution	Grand Junction	Occup. as Share	Average Income per HH (rounded)	Wrkr Households per 20,000 SF ³
	2024 Average Income ¹	of Retail Workers ²		Total Wrkr Households
				103.9
Management Occupations	\$63,532	4.3%	\$2,700	4.4
Business and Financial Operations Occupations	\$59,150	2.9%	\$1,730	3.0
Computer and Mathematical Occupations	\$68,170	0.1%	\$80	0.1
Architecture and Engineering Occupations	\$0	0.0%	\$0	0.0
Life, Physical, and Social Science Occupations	\$61,152	0.5%	\$300	0.5
Community and Social Service Occupations	\$0	0.0%	\$0	0.0
Legal Occupations	\$0	0.0%	\$0	0.0
Educational Instruction and Library Occupations	\$26,414	0.6%	\$150	0.6
Arts, Design, Entertainment, Sports, and Media Occupations	\$23,504	3.3%	\$780	3.5
Healthcare Practitioners and Technical Occupations	\$105,514	1.6%	\$1,700	1.7
Healthcare Support Occupations	\$67,287	0.0%	\$30	0.0
Protective Service Occupations	\$13,791	1.3%	\$180	1.4
Food Preparation and Serving Related Occupations	\$20,805	22.4%	\$4,660	23.3
Building and Grounds Cleaning and Maintenance Occupations	\$32,002	2.0%	\$630	2.0
Personal Care and Service Occupations	\$17,318	2.4%	\$420	2.5
Sales and Related Occupations	\$34,081	29.8%	\$10,160	31.0
Office and Administrative Support Occupations	\$21,532	9.5%	\$2,040	9.8
Farming, Fishing, and Forestry Occupations	\$36,835	0.2%	\$80	0.2
Construction and Extraction Occupations	\$28,527	0.6%	\$170	0.6
Installation, Maintenance, and Repair Occupations	\$62,439	3.1%	\$1,950	3.3
Production Occupations	\$31,658	2.8%	\$900	2.9
Transportation and Material Moving Occupations	\$27,032	12.5%	\$3,370	13.0
Weighted Average Annual Wage		100.0%	\$32,030	103.9

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 41: Household Distribution for Convenience Commercial Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.66	1.39	0.90	1.47	4.42
Business and Financial Operations Occupations	0.45	0.96	0.62	1.01	3.04
Computer and Mathematical Occupations	0.02	0.04	0.03	0.04	0.13
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.08	0.16	0.10	0.17	0.50
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.09	0.19	0.12	0.20	0.61
Arts, Design, Entertainment, Sports, and Media Occupations	0.52	1.09	0.70	1.15	3.46
Healthcare Practitioners and Technical Occupations	0.25	0.52	0.34	0.56	1.67
Healthcare Support Occupations	0.01	0.02	0.01	0.02	0.05
Protective Service Occupations	0.21	0.44	0.28	0.46	1.39
Food Preparation and Serving Related Occupations	3.48	7.32	4.74	7.76	23.29
Building and Grounds Cleaning and Maintenance Occupations	0.31	0.64	0.42	0.68	2.05
Personal Care and Service Occupations	0.37	0.78	0.51	0.83	2.50
Sales and Related Occupations	4.63	9.73	6.31	10.32	30.98
Office and Administrative Support Occupations	1.47	3.09	2.00	3.27	9.83
Farming, Fishing, and Forestry Occupations	0.03	0.07	0.04	0.07	0.22
Construction and Extraction Occupations	0.09	0.19	0.13	0.21	0.62
Installation, Maintenance, and Repair Occupations	0.49	1.02	0.66	1.08	3.25
Production Occupations	0.44	0.92	0.60	0.98	2.94
Transportation and Material Moving Occupations	1.94	4.07	2.64	4.32	12.96
Total	15.54	32.64	21.15	34.60	103.90

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 42: Household Income for Convenience Commercial Building Prototype

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$82,591	\$101,651	\$133,417	\$146,123	\$114,357
Business and Financial Operations Occupations	\$76,895	\$94,640	\$124,215	\$136,045	\$106,470
Computer and Mathematical Occupations	\$88,621	\$109,072	\$143,157	\$156,791	\$122,706
Architecture and Engineering Occupations	\$0	\$0	\$0	\$0	\$0
Life, Physical, and Social Science Occupations	\$79,498	\$97,843	\$128,419	\$140,650	\$110,074
Community and Social Service Occupations	\$0	\$0	\$0	\$0	\$0
Legal Occupations	\$0	\$0	\$0	\$0	\$0
Education, Training, and Library Occupations	\$34,338	\$42,262	\$55,468	\$60,751	\$47,544
Arts, Design, Entertainment, Sports, and Media Occupations	\$30,556	\$37,607	\$49,359	\$54,060	\$42,308
Healthcare Practitioners and Technical Occupations	\$137,168	\$168,822	\$221,579	\$242,681	\$189,924
Healthcare Support Occupations	\$87,473	\$107,659	\$141,302	\$154,759	\$121,116
Protective Service Occupations	\$17,929	\$22,066	\$28,962	\$31,720	\$24,824
Food Preparation and Serving Related Occupations	\$27,046	\$33,287	\$43,690	\$47,851	\$37,448
Building and Grounds Cleaning and Maintenance Occupations	\$41,603	\$51,203	\$67,205	\$73,605	\$57,604
Personal Care and Service Occupations	\$22,514	\$27,710	\$36,369	\$39,832	\$31,173
Sales and Related Occupations	\$44,305	\$54,529	\$71,570	\$78,386	\$61,345
Office and Administrative Support Occupations	\$27,991	\$34,451	\$45,216	\$49,523	\$38,757
Farming, Fishing, and Forestry Occupations	\$47,886	\$58,936	\$77,354	\$84,721	\$66,303
Construction and Extraction Occupations	\$37,084	\$45,642	\$59,906	\$65,611	\$51,348
Installation, Maintenance, and Repair Occupations	\$81,171	\$99,902	\$131,122	\$143,610	\$112,390
Production Occupations	\$41,155	\$50,652	\$66,481	\$72,813	\$56,984
Transportation and Material Moving Occupations	\$35,141	\$43,251	\$56,767	\$62,173	\$48,657

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Figure 43: Percent of Median Income by Household Type and Occupation for Convenience Commercial Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Percent of Median Income by Occupation				
Management Occupations	125%	135%	157%	155%
Business and Financial Operations Occupations	117%	126%	146%	144%
Computer and Mathematical Occupations	134%	145%	169%	166%
Architecture and Engineering Occupations	0%	0%	0%	0%
Life, Physical, and Social Science Occupations	120%	130%	151%	149%
Community and Social Service Occupations	0%	0%	0%	0%
Legal Occupations	0%	0%	0%	0%
Education, Training, and Library Occupations	52%	56%	65%	64%
Arts, Design, Entertainment, Sports, and Media Occupations	46%	50%	58%	57%
Healthcare Practitioners and Technical Occupations	208%	224%	261%	258%
Healthcare Support Occupations	133%	143%	167%	164%
Protective Service Occupations	27%	29%	34%	34%
Food Preparation and Serving Related Occupations	41%	44%	52%	51%
Building and Grounds Cleaning and Maintenance Occupations	63%	68%	79%	78%
Personal Care and Service Occupations	34%	37%	43%	42%
Sales and Related Occupations	67%	72%	84%	83%
Office and Administrative Support Occupations	42%	46%	53%	53%
Farming, Fishing, and Forestry Occupations	73%	78%	91%	90%
Construction and Extraction Occupations	56%	61%	71%	70%
Installation, Maintenance, and Repair Occupations	123%	132%	155%	152%
Production Occupations	62%	67%	78%	77%
Transportation and Material Moving Occupations	53%	57%	67%	66%

Red indicates a value less than 100% (reflecting the median household income).

Figure 44: Worker Households per 20,000 sq. ft. by AMI Level for Convenience Commercial Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
50% AMI and Below					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.52	1.09	0.00	0.00	1.61
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.21	0.44	0.28	0.46	1.39
Food Preparation and Serving Related Occupations	3.48	7.32	0.00	0.00	10.80
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.37	0.78	0.51	0.83	2.49
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	1.47	3.09	0.00	0.00	4.56
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	6.05	12.72	0.79	1.29	20.85

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
60% AMI (Over 50 to 60% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.09	0.19	0.00	0.00	0.28
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.70	1.15	1.85
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	4.74	7.76	12.50
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	2.00	3.27	5.27
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.09	0.00	0.00	0.00	0.09
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	1.94	4.07	0.00	0.00	6.01
Total	2.12	4.26	7.44	12.18	26.00

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 45: Worker Households per 20,000 sq. ft. by AMI Level for Convenience Commercial Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.12	0.20	0.32
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.31	0.64	0.42	0.68	2.05
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	4.63	9.73	0.00	0.00	14.36
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.03	0.07	0.00	0.00	0.10
Construction and Extraction Occupations	0.00	0.19	0.13	0.21	0.53
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.44	0.92	0.60	0.98	2.94
Transportation and Material Moving Occupations	0.00	0.00	2.64	4.32	6.96
Total	5.41	11.55	3.91	6.39	27.26

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
100% AMI (Over 80 to 100% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	6.31	10.32	16.63
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.04	0.07	0.11
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	6.35	10.39	16.74

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 46: Worker Households per 20,000 sq. ft. by AMI Level for Convenience Commercial Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120% AMI (Over 100 to 120% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.45	0.00	0.00	0.00	0.45
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.45	0.00	0.00	0.00	0.45

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120%+ AMI					
Management Occupations	0.66	1.39	0.90	1.47	4.42
Business and Financial Operations Occupations	0.00	0.96	0.62	1.01	2.59
Computer and Mathematical Occupations	0.02	0.04	0.03	0.04	0.13
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.08	0.16	0.10	0.17	0.51
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.25	0.52	0.34	0.56	1.67
Healthcare Support Occupations	0.01	0.02	0.01	0.02	0.06
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.49	1.02	0.66	1.08	3.25
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	1.51	4.11	2.66	4.35	12.63

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

OFFICE

Figure 47: Income by Occupation for Office Building Prototype

Occupation Distribution	Grand Junction	Occup. as Share	Average Income per HH (rounded)	Wrkr Households per 20,000 SF ³
	2024 Average Income ¹	of Office Workers ²		Total Wrkr Households
Management Occupations	\$104,330	10.9%	\$11,330	3.9
Business and Financial Operations Occupations	\$82,054	5.2%	\$4,250	1.9
Computer and Mathematical Occupations	\$86,446	2.3%	\$1,960	0.8
Architecture and Engineering Occupations	\$92,723	2.5%	\$2,350	0.9
Life, Physical, and Social Science Occupations	\$85,122	1.4%	\$1,230	0.5
Community and Social Service Occupations	\$58,664	4.0%	\$2,350	1.5
Legal Occupations	\$100,301	1.6%	\$1,570	0.6
Educational Instruction and Library Occupations	\$28,029	2.3%	\$640	0.8
Arts, Design, Entertainment, Sports, and Media Occupations	\$52,336	1.3%	\$680	0.5
Healthcare Practitioners and Technical Occupations	\$102,635	15.0%	\$15,370	5.4
Healthcare Support Occupations	\$32,748	10.3%	\$3,370	3.7
Protective Service Occupations	\$68,268	4.0%	\$2,740	1.5
Food Preparation and Serving Related Occupations	\$28,674	1.7%	\$480	0.6
Building and Grounds Cleaning and Maintenance Occupations	\$25,169	4.1%	\$1,030	1.5
Personal Care and Service Occupations	\$22,444	1.6%	\$360	0.6
Sales and Related Occupations	\$63,970	3.9%	\$2,470	1.4
Office and Administrative Support Occupations	\$44,884	15.9%	\$7,140	5.8
Farming, Fishing, and Forestry Occupations	\$24,786	0.1%	\$20	0.0
Construction and Extraction Occupations	\$55,937	0.8%	\$440	0.3
Installation, Maintenance, and Repair Occupations	\$54,482	4.6%	\$2,520	1.7
Production Occupations	\$44,073	2.9%	\$1,290	1.1
Transportation and Material Moving Occupations	\$40,130	3.7%	\$1,490	1.3
Weighted Average Annual Wage		100.0%	\$65,080	36.2

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 48: Household Distribution for Office Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.57	1.38	0.77	1.21	3.93
Business and Financial Operations Occupations	0.27	0.66	0.37	0.58	1.87
Computer and Mathematical Occupations	0.12	0.29	0.16	0.25	0.82
Architecture and Engineering Occupations	0.13	0.32	0.18	0.28	0.92
Life, Physical, and Social Science Occupations	0.08	0.18	0.10	0.16	0.52
Community and Social Service Occupations	0.21	0.51	0.29	0.45	1.45
Legal Occupations	0.08	0.20	0.11	0.17	0.57
Education, Training, and Library Occupations	0.12	0.29	0.16	0.25	0.82
Arts, Design, Entertainment, Sports, and Media Occupations	0.07	0.16	0.09	0.14	0.47
Healthcare Practitioners and Technical Occupations	0.78	1.91	1.07	1.67	5.42
Healthcare Support Occupations	0.54	1.31	0.73	1.15	3.73
Protective Service Occupations	0.21	0.51	0.29	0.45	1.45
Food Preparation and Serving Related Occupations	0.09	0.21	0.12	0.19	0.61
Building and Grounds Cleaning and Maintenance Occupations	0.21	0.52	0.29	0.46	1.48
Personal Care and Service Occupations	0.08	0.21	0.12	0.18	0.59
Sales and Related Occupations	0.20	0.49	0.28	0.43	1.40
Office and Administrative Support Occupations	0.83	2.02	1.13	1.77	5.76
Farming, Fishing, and Forestry Occupations	0.00	0.01	0.00	0.01	0.02
Construction and Extraction Occupations	0.04	0.10	0.06	0.09	0.29
Installation, Maintenance, and Repair Occupations	0.24	0.59	0.33	0.52	1.68
Production Occupations	0.15	0.37	0.21	0.33	1.06
Transportation and Material Moving Occupations	0.19	0.47	0.26	0.41	1.34
Total	5.21	12.71	7.12	11.15	36.20

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 49: Household Income for Office Building Prototype

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$135,628	\$166,927	\$219,092	\$239,958	\$187,793
Business and Financial Operations Occupations	\$106,671	\$131,287	\$172,314	\$188,725	\$147,698
Computer and Mathematical Occupations	\$112,379	\$138,313	\$181,536	\$198,825	\$155,602
Architecture and Engineering Occupations	\$120,541	\$148,358	\$194,719	\$213,264	\$166,902
Life, Physical, and Social Science Occupations	\$110,658	\$136,194	\$178,755	\$195,780	\$153,219
Community and Social Service Occupations	\$76,263	\$93,863	\$123,195	\$134,928	\$105,596
Legal Occupations	\$130,391	\$160,482	\$210,632	\$230,692	\$180,542
Education, Training, and Library Occupations	\$36,438	\$44,846	\$58,861	\$64,466	\$50,452
Arts, Design, Entertainment, Sports, and Media Occupations	\$68,037	\$83,738	\$109,906	\$120,373	\$94,205
Healthcare Practitioners and Technical Occupations	\$133,426	\$164,216	\$215,534	\$236,061	\$184,743
Healthcare Support Occupations	\$42,572	\$52,396	\$68,770	\$75,319	\$58,946
Protective Service Occupations	\$88,748	\$109,228	\$143,362	\$157,016	\$122,882
Food Preparation and Serving Related Occupations	\$37,276	\$45,879	\$60,216	\$65,951	\$51,614
Building and Grounds Cleaning and Maintenance Occupations	\$32,719	\$40,270	\$52,855	\$57,888	\$45,304
Personal Care and Service Occupations	\$29,177	\$35,910	\$47,132	\$51,620	\$40,398
Sales and Related Occupations	\$83,161	\$102,353	\$134,338	\$147,132	\$115,147
Office and Administrative Support Occupations	\$58,349	\$71,814	\$94,256	\$103,233	\$80,791
Farming, Fishing, and Forestry Occupations	\$32,222	\$39,657	\$52,050	\$57,007	\$44,615
Construction and Extraction Occupations	\$72,718	\$89,500	\$117,468	\$128,656	\$100,687
Installation, Maintenance, and Repair Occupations	\$70,826	\$87,171	\$114,412	\$125,308	\$98,067
Production Occupations	\$57,295	\$70,517	\$92,554	\$101,369	\$79,332
Transportation and Material Moving Occupations	\$52,169	\$64,208	\$84,272	\$92,298	\$72,233

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Figure 50: Percent of Median Income by Household Type and Occupation for Office Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Percent of Median Income by Occupation				
Management Occupations	205%	221%	258%	255%
Business and Financial Operations Occupations	162%	174%	203%	200%
Computer and Mathematical Occupations	170%	183%	214%	211%
Architecture and Engineering Occupations	183%	197%	230%	226%
Life, Physical, and Social Science Occupations	168%	181%	211%	208%
Community and Social Service Occupations	116%	124%	145%	143%
Legal Occupations	198%	213%	248%	245%
Education, Training, and Library Occupations	55%	59%	69%	68%
Arts, Design, Entertainment, Sports, and Media Occupations	103%	111%	130%	128%
Healthcare Practitioners and Technical Occupations	202%	218%	254%	251%
Healthcare Support Occupations	65%	69%	81%	80%
Protective Service Occupations	134%	145%	169%	167%
Food Preparation and Serving Related Occupations	56%	61%	71%	70%
Building and Grounds Cleaning and Maintenance Occupations	50%	53%	62%	61%
Personal Care and Service Occupations	44%	48%	56%	55%
Sales and Related Occupations	126%	136%	158%	156%
Office and Administrative Support Occupations	88%	95%	111%	110%
Farming, Fishing, and Forestry Occupations	49%	53%	61%	61%
Construction and Extraction Occupations	110%	119%	139%	137%
Installation, Maintenance, and Repair Occupations	107%	116%	135%	133%
Production Occupations	87%	94%	109%	108%
Transportation and Material Moving Occupations	79%	85%	99%	98%

Red indicates a value less than 100% (reflecting the median household income).

Figure 51: Worker Households per 20,000 sq. ft. by AMI Level for Office Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
50% AMI and Below					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.21	0.00	0.00	0.00	0.21
Personal Care and Service Occupations	0.08	0.21	0.00	0.00	0.29
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.29	0.21	0.00	0.00	0.50

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
60% AMI (Over 50 to 60% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.12	0.29	0.00	0.00	0.41
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.09	0.00	0.00	0.00	0.09
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.52	0.00	0.00	0.52
Personal Care and Service Occupations	0.00	0.00	0.12	0.18	0.30
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.01	0.00	0.00	0.01
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.21	0.82	0.12	0.18	1.33

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 52: Worker Households per 20,000 sq. ft. by AMI Level for Office Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.16	0.25	0.41
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.54	1.31	0.00	1.15	3.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.21	0.12	0.19	0.52
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.29	0.46	0.75
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.01	0.01
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.19	0.00	0.00	0.00	0.19
Total	0.73	1.52	0.57	2.06	4.88

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
100% AMI (Over 80 to 100% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.73	0.00	0.73
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.83	2.02	0.00	0.00	2.85
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.15	0.37	0.00	0.00	0.52
Transportation and Material Moving Occupations	0.00	0.47	0.26	0.41	1.14
Total	0.98	2.86	0.99	0.41	5.24

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 53: Worker Households per 20,000 sq. ft. by AMI Level for Office Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120% AMI (Over 100 to 120% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.21	0.00	0.00	0.00	0.21
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.07	0.16	0.00	0.00	0.23
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	1.13	1.77	2.90
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.04	0.10	0.00	0.00	0.14
Installation, Maintenance, and Repair Occupations	0.24	0.59	0.00	0.00	0.83
Production Occupations	0.00	0.00	0.21	0.33	0.54
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.56	0.85	1.34	2.10	4.85

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120%+ AMI					
Management Occupations	0.57	1.38	0.77	1.21	3.93
Business and Financial Operations Occupations	0.27	0.66	0.37	0.58	1.88
Computer and Mathematical Occupations	0.12	0.29	0.16	0.25	0.82
Architecture and Engineering Occupations	0.13	0.32	0.18	0.28	0.91
Life, Physical, and Social Science Occupations	0.08	0.18	0.10	0.16	0.52
Community and Social Service Occupations	0.00	0.51	0.29	0.45	1.25
Legal Occupations	0.08	0.20	0.11	0.17	0.56
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.09	0.14	0.23
Healthcare Practitioners and Technical Occupations	0.78	1.91	1.07	1.67	5.43
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.21	0.51	0.29	0.45	1.46
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.20	0.49	0.28	0.43	1.40
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.06	0.09	0.15
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.33	0.52	0.85
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	2.44	6.45	4.10	6.40	19.39

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

INSTITUTIONAL

Figure 54: Income by Occupation for Institutional Building Prototype

Occupation Distribution	Grand Junction	Occup. as Share	Average Income per HH (rounded)	Households per 20,000 SF ³
	2024 Average Income ¹	of Institutional Workers ²		Total Wrkr Households
Management Occupations	\$94,030	4.1%	\$3,870	31.8
Business and Financial Operations Occupations	\$38,596	2.2%	\$850	0.7
Computer and Mathematical Occupations	\$86,600	2.2%	\$1,880	0.7
Architecture and Engineering Occupations	\$6,148	0.2%	\$10	0.1
Life, Physical, and Social Science Occupations	\$81,029	2.2%	\$1,750	0.7
Community and Social Service Occupations	\$42,109	3.1%	\$1,290	1.0
Legal Occupations	\$0	0.0%	\$0	0.0
Educational Instruction and Library Occupations	\$52,056	61.1%	\$31,820	19.4
Arts, Design, Entertainment, Sports, and Media Occupations	\$35,645	2.4%	\$860	0.8
Healthcare Practitioners and Technical Occupations	\$84,220	0.6%	\$520	0.2
Healthcare Support Occupations	\$46,638	0.7%	\$310	0.2
Protective Service Occupations	\$18,879	0.5%	\$90	0.1
Food Preparation and Serving Related Occupations	\$28,616	3.2%	\$930	1.0
Building and Grounds Cleaning and Maintenance Occupations	\$35,862	5.6%	\$2,010	1.8
Personal Care and Service Occupations	\$4,691	1.1%	\$50	0.4
Sales and Related Occupations	\$0	0.0%	\$0	0.0
Office and Administrative Support Occupations	\$18,652	9.6%	\$1,790	3.1
Farming, Fishing, and Forestry Occupations	\$0	0.0%	\$0	0.0
Construction and Extraction Occupations	\$0	0.0%	\$0	0.0
Installation, Maintenance, and Repair Occupations	\$70,817	0.4%	\$280	0.1
Production Occupations	\$0	0.0%	\$0	0.0
Transportation and Material Moving Occupations	\$41,384	0.8%	\$350	0.3
Weighted Average Annual Wage		100.0%	\$48,660	31.8

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 55: Household Distribution for Institutional Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.30	0.47	0.28	0.25	1.31
Business and Financial Operations Occupations	0.16	0.25	0.15	0.13	0.70
Computer and Mathematical Occupations	0.16	0.25	0.15	0.13	0.69
Architecture and Engineering Occupations	0.02	0.03	0.02	0.01	0.07
Life, Physical, and Social Science Occupations	0.16	0.25	0.15	0.13	0.69
Community and Social Service Occupations	0.23	0.35	0.21	0.18	0.97
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	4.50	7.04	4.21	3.68	19.44
Arts, Design, Entertainment, Sports, and Media Occupations	0.18	0.28	0.17	0.15	0.77
Healthcare Practitioners and Technical Occupations	0.05	0.07	0.04	0.04	0.20
Healthcare Support Occupations	0.05	0.08	0.05	0.04	0.21
Protective Service Occupations	0.03	0.05	0.03	0.03	0.15
Food Preparation and Serving Related Occupations	0.24	0.37	0.22	0.20	1.03
Building and Grounds Cleaning and Maintenance Occupations	0.41	0.65	0.39	0.34	1.78
Personal Care and Service Occupations	0.08	0.13	0.08	0.07	0.35
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.71	1.11	0.66	0.58	3.05
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.03	0.04	0.03	0.02	0.12
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.06	0.10	0.06	0.05	0.27
Total	7.37	11.52	6.90	6.03	31.80

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 56: Household Income for Institutional Building Prototype

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$122,239	\$150,448	\$197,463	\$216,269	\$169,254
Business and Financial Operations Occupations	\$50,175	\$61,754	\$81,053	\$88,772	\$69,474
Computer and Mathematical Occupations	\$112,581	\$138,561	\$181,861	\$199,181	\$155,881
Architecture and Engineering Occupations	\$7,993	\$9,838	\$12,912	\$14,141	\$11,067
Life, Physical, and Social Science Occupations	\$105,338	\$129,647	\$170,162	\$186,368	\$145,853
Community and Social Service Occupations	\$54,742	\$67,374	\$88,429	\$96,851	\$75,796
Legal Occupations	\$0	\$0	\$0	\$0	\$0
Education, Training, and Library Occupations	\$67,672	\$83,289	\$109,317	\$119,728	\$93,700
Arts, Design, Entertainment, Sports, and Media Occupations	\$46,338	\$57,031	\$74,854	\$81,983	\$64,160
Healthcare Practitioners and Technical Occupations	\$109,485	\$134,751	\$176,861	\$193,705	\$151,595
Healthcare Support Occupations	\$60,629	\$74,621	\$97,940	\$107,267	\$83,948
Protective Service Occupations	\$24,543	\$30,206	\$39,646	\$43,421	\$33,982
Food Preparation and Serving Related Occupations	\$37,200	\$45,785	\$60,093	\$65,816	\$51,508
Building and Grounds Cleaning and Maintenance Occupations	\$46,621	\$57,380	\$75,311	\$82,483	\$64,552
Personal Care and Service Occupations	\$6,099	\$7,506	\$9,852	\$10,790	\$8,444
Sales and Related Occupations	\$0	\$0	\$0	\$0	\$0
Office and Administrative Support Occupations	\$24,248	\$29,843	\$39,169	\$42,899	\$33,573
Farming, Fishing, and Forestry Occupations	\$0	\$0	\$0	\$0	\$0
Construction and Extraction Occupations	\$0	\$0	\$0	\$0	\$0
Installation, Maintenance, and Repair Occupations	\$92,062	\$113,307	\$148,715	\$162,879	\$127,470
Production Occupations	\$0	\$0	\$0	\$0	\$0
Transportation and Material Moving Occupations	\$53,800	\$66,215	\$86,907	\$95,184	\$74,492

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Figure 57: Percent of Median Income by Household Type and Occupation for Institutional Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Percent of Median Income by Occupation				
Management Occupations	185%	200%	233%	230%
Business and Financial Operations Occupations	76%	82%	96%	94%
Computer and Mathematical Occupations	171%	184%	214%	211%
Architecture and Engineering Occupations	12%	13%	15%	15%
Life, Physical, and Social Science Occupations	160%	172%	201%	198%
Community and Social Service Occupations	83%	89%	104%	103%
Legal Occupations	0%	0%	0%	0%
Education, Training, and Library Occupations	103%	110%	129%	127%
Arts, Design, Entertainment, Sports, and Media Occupations	70%	76%	88%	87%
Healthcare Practitioners and Technical Occupations	166%	179%	209%	206%
Healthcare Support Occupations	92%	99%	115%	114%
Protective Service Occupations	37%	40%	47%	46%
Food Preparation and Serving Related Occupations	56%	61%	71%	70%
Building and Grounds Cleaning and Maintenance Occupations	71%	76%	89%	88%
Personal Care and Service Occupations	9%	10%	12%	11%
Sales and Related Occupations	0%	0%	0%	0%
Office and Administrative Support Occupations	37%	40%	46%	46%
Farming, Fishing, and Forestry Occupations	0%	0%	0%	0%
Construction and Extraction Occupations	0%	0%	0%	0%
Installation, Maintenance, and Repair Occupations	139%	150%	175%	173%
Production Occupations	0%	0%	0%	0%
Transportation and Material Moving Occupations	82%	88%	102%	101%

Red indicates a value less than 100% (reflecting the median household income).

Figure 58: Worker Households per 20,000 sq. ft. by AMI Level for Institutional Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
50% AMI and Below					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.02	0.03	0.02	0.01	0.08
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.03	0.05	0.03	0.03	0.14
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.08	0.13	0.08	0.07	0.36
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.71	1.11	0.66	0.58	3.06
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.84	1.32	0.79	0.69	3.64

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
60% AMI (Over 50 to 60% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.24	0.00	0.00	0.00	0.24
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.24	0.00	0.00	0.00	0.24

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 59: Worker Households per 20,000 sq. ft. by AMI Level for Institutional Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.16	0.00	0.00	0.00	0.16
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.18	0.28	0.00	0.00	0.46
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.37	0.22	0.20	0.79
Building and Grounds Cleaning and Maintenance Occupations	0.41	0.65	0.00	0.00	1.06
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.75	1.30	0.22	0.20	2.47

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
100% AMI (Over 80 to 100% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.25	0.15	0.13	0.53
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.23	0.35	0.00	0.00	0.58
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.17	0.15	0.32
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.05	0.08	0.00	0.00	0.13
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.39	0.34	0.73
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.06	0.10	0.00	0.00	0.16
Total	0.34	0.78	0.71	0.62	2.45

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 60: Worker Households per 20,000 sq. ft. by AMI Level for Institutional Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120% AMI (Over 100 to 120% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.21	0.18	0.39
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	4.50	7.04	0.00	0.00	11.54
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.05	0.04	0.09
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.06	0.05	0.11
Total	4.50	7.04	0.32	0.27	12.13

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120%+ AMI					
Management Occupations	0.30	0.47	0.28	0.25	1.30
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.16	0.25	0.15	0.13	0.69
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.16	0.25	0.15	0.13	0.69
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	4.21	3.68	7.89
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.05	0.07	0.04	0.04	0.20
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.03	0.04	0.03	0.02	0.12
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.70	1.08	4.86	4.25	10.89

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

INDUSTRIAL

Figure 61: Income by Occupation for Industrial Building Prototype

Occupation Distribution	Grand Junction	Occup. as Share	Average Income per HH (rounded)	Wrkr Households per 20,000 SF ³
	2024 Average Income ¹	of Industrial Workers ²		Total Wrkr Households
Management Occupations	\$118,788	13.1%	\$15,620	12.90
Business and Financial Operations Occupations	\$99,567	2.0%	\$1,980	0.26
Computer and Mathematical Occupations	\$71,541	1.6%	\$1,130	0.20
Architecture and Engineering Occupations	\$91,155	3.7%	\$3,370	0.48
Life, Physical, and Social Science Occupations	\$41,290	0.7%	\$300	0.09
Community and Social Service Occupations	\$0	0.0%	\$0	0.00
Legal Occupations	\$0	0.0%	\$0	0.00
Educational Instruction and Library Occupations	\$47,030	0.4%	\$210	0.06
Arts, Design, Entertainment, Sports, and Media Occupations	\$18,816	0.2%	\$40	0.03
Healthcare Practitioners and Technical Occupations	\$0	0.0%	\$0	0.00
Healthcare Support Occupations	\$0	0.0%	\$0	0.00
Protective Service Occupations	\$55,886	0.7%	\$390	0.09
Food Preparation and Serving Related Occupations	\$17,079	0.3%	\$50	0.04
Building and Grounds Cleaning and Maintenance Occupations	\$24,313	1.3%	\$320	0.17
Personal Care and Service Occupations	\$37,507	0.1%	\$30	0.01
Sales and Related Occupations	\$99,314	5.9%	\$5,870	0.76
Office and Administrative Support Occupations	\$49,455	10.4%	\$5,160	1.34
Farming, Fishing, and Forestry Occupations	\$31,547	2.5%	\$780	0.32
Construction and Extraction Occupations	\$53,850	20.6%	\$11,110	2.66
Installation, Maintenance, and Repair Occupations	\$80,049	4.5%	\$3,640	0.59
Production Occupations	\$49,947	13.7%	\$6,840	1.77
Transportation and Material Moving Occupations	\$58,518	18.1%	\$10,600	2.34
Weighted Average Annual Wage		100.0%	\$67,440	12.90

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 62: Household Distribution for Industrial Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.22	0.58	0.31	0.59	1.70
Business and Financial Operations Occupations	0.03	0.09	0.05	0.09	0.26
Computer and Mathematical Occupations	0.03	0.07	0.04	0.07	0.20
Architecture and Engineering Occupations	0.06	0.16	0.09	0.17	0.48
Life, Physical, and Social Science Occupations	0.01	0.03	0.02	0.03	0.09
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.01	0.02	0.01	0.02	0.06
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.01	0.01	0.01	0.03
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.01	0.03	0.02	0.03	0.09
Food Preparation and Serving Related Occupations	0.01	0.01	0.01	0.01	0.04
Building and Grounds Cleaning and Maintenance Occupations	0.02	0.06	0.03	0.06	0.17
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.01
Sales and Related Occupations	0.10	0.26	0.14	0.26	0.76
Office and Administrative Support Occupations	0.17	0.46	0.25	0.47	1.34
Farming, Fishing, and Forestry Occupations	0.04	0.11	0.06	0.11	0.32
Construction and Extraction Occupations	0.34	0.91	0.49	0.92	2.66
Installation, Maintenance, and Repair Occupations	0.08	0.20	0.11	0.20	0.59
Production Occupations	0.23	0.60	0.32	0.61	1.77
Transportation and Material Moving Occupations	0.30	0.80	0.43	0.81	2.34
Total	1.66	4.40	2.39	4.46	12.90

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 63: Household Income for Industrial Building Prototype

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$154,425	\$190,061	\$249,455	\$273,213	\$213,819
Business and Financial Operations Occupations	\$129,437	\$159,308	\$209,091	\$229,005	\$179,221
Computer and Mathematical Occupations	\$93,003	\$114,465	\$150,236	\$164,544	\$128,774
Architecture and Engineering Occupations	\$118,501	\$145,847	\$191,425	\$209,656	\$164,078
Life, Physical, and Social Science Occupations	\$53,676	\$66,063	\$86,708	\$94,966	\$74,321
Community and Social Service Occupations	\$0	\$0	\$0	\$0	\$0
Legal Occupations	\$0	\$0	\$0	\$0	\$0
Education, Training, and Library Occupations	\$61,139	\$75,248	\$98,763	\$108,169	\$84,654
Arts, Design, Entertainment, Sports, and Media Occupations	\$24,461	\$30,106	\$39,514	\$43,277	\$33,869
Healthcare Practitioners and Technical Occupations	\$0	\$0	\$0	\$0	\$0
Healthcare Support Occupations	\$0	\$0	\$0	\$0	\$0
Protective Service Occupations	\$72,652	\$89,417	\$117,360	\$128,538	\$100,595
Food Preparation and Serving Related Occupations	\$22,203	\$27,326	\$35,866	\$39,282	\$30,742
Building and Grounds Cleaning and Maintenance Occupations	\$31,607	\$38,901	\$51,058	\$55,921	\$43,764
Personal Care and Service Occupations	\$48,759	\$60,011	\$78,764	\$86,265	\$67,512
Sales and Related Occupations	\$129,108	\$158,902	\$208,559	\$228,422	\$178,765
Office and Administrative Support Occupations	\$64,291	\$79,128	\$103,855	\$113,746	\$89,019
Farming, Fishing, and Forestry Occupations	\$41,011	\$50,475	\$66,248	\$72,557	\$56,784
Construction and Extraction Occupations	\$70,005	\$86,160	\$113,085	\$123,855	\$96,930
Installation, Maintenance, and Repair Occupations	\$104,064	\$128,079	\$168,103	\$184,113	\$144,089
Production Occupations	\$64,931	\$79,915	\$104,889	\$114,878	\$89,904
Transportation and Material Moving Occupations	\$76,073	\$93,629	\$122,888	\$134,591	\$105,332

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Figure 64: Percent of Median Income by Household Type and Occupation for Industrial Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Percent of Median Income by Occupation				
Management Occupations	234%	252%	294%	290%
Business and Financial Operations Occupations	196%	211%	247%	243%
Computer and Mathematical Occupations	141%	152%	177%	175%
Architecture and Engineering Occupations	180%	193%	226%	223%
Life, Physical, and Social Science Occupations	81%	88%	102%	101%
Community and Social Service Occupations	0%	0%	0%	0%
Legal Occupations	0%	0%	0%	0%
Education, Training, and Library Occupations	93%	100%	116%	115%
Arts, Design, Entertainment, Sports, and Media Occupations	37%	40%	47%	46%
Healthcare Practitioners and Technical Occupations	0%	0%	0%	0%
Healthcare Support Occupations	0%	0%	0%	0%
Protective Service Occupations	110%	119%	138%	136%
Food Preparation and Serving Related Occupations	34%	36%	42%	42%
Building and Grounds Cleaning and Maintenance Occupations	48%	52%	60%	59%
Personal Care and Service Occupations	74%	80%	93%	92%
Sales and Related Occupations	196%	211%	246%	242%
Office and Administrative Support Occupations	97%	105%	122%	121%
Farming, Fishing, and Forestry Occupations	62%	67%	78%	77%
Construction and Extraction Occupations	106%	114%	133%	131%
Installation, Maintenance, and Repair Occupations	158%	170%	198%	195%
Production Occupations	98%	106%	124%	122%
Transportation and Material Moving Occupations	115%	124%	145%	143%

Red indicates a value less than 100% (reflecting the median household income).

Figure 65: Worker Households per 20,000 sq. ft. by AMI Level for Industrial Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
50% AMI and Below					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.01	0.01	0.01	0.03
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.01	0.01	0.01	0.01	0.04
Building and Grounds Cleaning and Maintenance Occupations	0.02	0.00	0.00	0.00	0.02
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.02	0.02	0.02	0.09

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
60% AMI (Over 50 to 60% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.06	0.00	0.06	0.12
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.06	0.00	0.06	0.12

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 66: Worker Households per 20,000 sq. ft. by AMI Level for Industrial Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.03	0.00	0.03
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.04	0.11	0.06	0.11	0.32
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.11	0.09	0.11	0.35

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
100% AMI (Over 80 to 100% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.01	0.03	0.00	0.00	0.04
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.01	0.02	0.00	0.00	0.03
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.17	0.00	0.00	0.00	0.17
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.23	0.00	0.00	0.00	0.23
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.42	0.05	0.00	0.00	0.47

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 67: Worker Households per 20,000 sq. ft. by AMI Level for Industrial Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120% AMI (Over 100 to 120% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.02	0.03	0.05
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.01	0.02	0.03
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.01	0.03	0.00	0.00	0.04
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.46	0.00	0.00	0.46
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.34	0.91	0.00	0.00	1.25
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.60	0.00	0.00	0.60
Transportation and Material Moving Occupations	0.30	0.00	0.00	0.00	0.30
Total	0.65	2.00	0.03	0.05	2.73

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120%+ AMI					
Management Occupations	0.22	0.58	0.31	0.59	1.70
Business and Financial Operations Occupations	0.03	0.09	0.05	0.09	0.26
Computer and Mathematical Occupations	0.03	0.07	0.04	0.07	0.21
Architecture and Engineering Occupations	0.06	0.16	0.09	0.17	0.48
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.02	0.03	0.05
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.10	0.26	0.14	0.26	0.76
Office and Administrative Support Occupations	0.00	0.00	0.25	0.47	0.72
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.49	0.92	1.41
Installation, Maintenance, and Repair Occupations	0.08	0.20	0.11	0.20	0.59
Production Occupations	0.00	0.00	0.32	0.61	0.93
Transportation and Material Moving Occupations	0.00	0.80	0.43	0.81	2.04
Total	0.52	2.16	2.25	4.22	9.15

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

WAREHOUSING

Figure 68: Income by Occupation for Warehousing Building Prototype

Occupation Distribution	Grand Junction	Occup. as Share	Average Income per HH (rounded)	Wrkr Households per 20,000 SF ³
	2024 Average Income ¹	of Industrial Workers ²		Total Wrkr Households
Management Occupations	\$118,788	13.1%	\$15,620	3.80
Business and Financial Operations Occupations	\$99,567	2.0%	\$1,980	0.08
Computer and Mathematical Occupations	\$71,541	1.6%	\$1,130	0.06
Architecture and Engineering Occupations	\$91,155	3.7%	\$3,370	0.14
Life, Physical, and Social Science Occupations	\$41,290	0.7%	\$300	0.03
Community and Social Service Occupations	\$0	0.0%	\$0	0.00
Legal Occupations	\$0	0.0%	\$0	0.00
Educational Instruction and Library Occupations	\$47,030	0.4%	\$210	0.02
Arts, Design, Entertainment, Sports, and Media Occupations	\$18,816	0.2%	\$40	0.01
Healthcare Practitioners and Technical Occupations	\$0	0.0%	\$0	0.00
Healthcare Support Occupations	\$0	0.0%	\$0	0.00
Protective Service Occupations	\$55,886	0.7%	\$390	0.03
Food Preparation and Serving Related Occupations	\$17,079	0.3%	\$50	0.01
Building and Grounds Cleaning and Maintenance Occupations	\$24,313	1.3%	\$320	0.05
Personal Care and Service Occupations	\$37,507	0.1%	\$30	0.00
Sales and Related Occupations	\$99,314	5.9%	\$5,870	0.22
Office and Administrative Support Occupations	\$49,455	10.4%	\$5,160	0.40
Farming, Fishing, and Forestry Occupations	\$31,547	2.5%	\$780	0.09
Construction and Extraction Occupations	\$53,850	20.6%	\$11,110	0.78
Installation, Maintenance, and Repair Occupations	\$80,049	4.5%	\$3,640	0.17
Production Occupations	\$49,947	13.7%	\$6,840	0.52
Transportation and Material Moving Occupations	\$58,518	18.1%	\$10,600	0.69
Weighted Average Annual Wage		100.0%	\$67,440	3.80

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 69: Household Distribution for Warehousing Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.06	0.17	0.09	0.17	0.50
Business and Financial Operations Occupations	0.01	0.03	0.01	0.03	0.08
Computer and Mathematical Occupations	0.01	0.02	0.01	0.02	0.06
Architecture and Engineering Occupations	0.02	0.05	0.03	0.05	0.14
Life, Physical, and Social Science Occupations	0.00	0.01	0.01	0.01	0.03
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.01	0.00	0.01	0.02
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.01
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.01	0.00	0.01	0.03
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.01
Building and Grounds Cleaning and Maintenance Occupations	0.01	0.02	0.01	0.02	0.05
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.03	0.08	0.04	0.08	0.22
Office and Administrative Support Occupations	0.05	0.14	0.07	0.14	0.40
Farming, Fishing, and Forestry Occupations	0.01	0.03	0.02	0.03	0.09
Construction and Extraction Occupations	0.10	0.27	0.14	0.27	0.78
Installation, Maintenance, and Repair Occupations	0.02	0.06	0.03	0.06	0.17
Production Occupations	0.07	0.18	0.09	0.18	0.52
Transportation and Material Moving Occupations	0.09	0.24	0.13	0.24	0.69
Total	0.48	1.32	0.68	1.32	3.80

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 70: Household Income for Warehousing Building Prototype

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$154,425	\$190,061	\$249,455	\$273,213	\$213,819
Business and Financial Operations Occupations	\$129,437	\$159,308	\$209,091	\$229,005	\$179,221
Computer and Mathematical Occupations	\$93,003	\$114,465	\$150,236	\$164,544	\$128,774
Architecture and Engineering Occupations	\$118,501	\$145,847	\$191,425	\$209,656	\$164,078
Life, Physical, and Social Science Occupations	\$53,676	\$66,063	\$86,708	\$94,966	\$74,321
Community and Social Service Occupations	\$0	\$0	\$0	\$0	\$0
Legal Occupations	\$0	\$0	\$0	\$0	\$0
Education, Training, and Library Occupations	\$61,139	\$75,248	\$98,763	\$108,169	\$84,654
Arts, Design, Entertainment, Sports, and Media Occupations	\$24,461	\$30,106	\$39,514	\$43,277	\$33,869
Healthcare Practitioners and Technical Occupations	\$0	\$0	\$0	\$0	\$0
Healthcare Support Occupations	\$0	\$0	\$0	\$0	\$0
Protective Service Occupations	\$72,652	\$89,417	\$117,360	\$128,538	\$100,595
Food Preparation and Serving Related Occupations	\$22,203	\$27,326	\$35,866	\$39,282	\$30,742
Building and Grounds Cleaning and Maintenance Occupations	\$31,607	\$38,901	\$51,058	\$55,921	\$43,764
Personal Care and Service Occupations	\$48,759	\$60,011	\$78,764	\$86,265	\$67,512
Sales and Related Occupations	\$129,108	\$158,902	\$208,559	\$228,422	\$178,765
Office and Administrative Support Occupations	\$64,291	\$79,128	\$103,855	\$113,746	\$89,019
Farming, Fishing, and Forestry Occupations	\$41,011	\$50,475	\$66,248	\$72,557	\$56,784
Construction and Extraction Occupations	\$70,005	\$86,160	\$113,085	\$123,855	\$96,930
Installation, Maintenance, and Repair Occupations	\$104,064	\$128,079	\$168,103	\$184,113	\$144,089
Production Occupations	\$64,931	\$79,915	\$104,889	\$114,878	\$89,904
Transportation and Material Moving Occupations	\$76,073	\$93,629	\$122,888	\$134,591	\$105,332

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Figure 71: Percent of Median Income by Household Type and Occupation for Warehousing Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Percent of Median Income by Occupation				
Management Occupations	234%	252%	294%	290%
Business and Financial Operations Occupations	196%	211%	247%	243%
Computer and Mathematical Occupations	141%	152%	177%	175%
Architecture and Engineering Occupations	180%	193%	226%	223%
Life, Physical, and Social Science Occupations	81%	88%	102%	101%
Community and Social Service Occupations	0%	0%	0%	0%
Legal Occupations	0%	0%	0%	0%
Education, Training, and Library Occupations	93%	100%	116%	115%
Arts, Design, Entertainment, Sports, and Media Occupations	37%	40%	47%	46%
Healthcare Practitioners and Technical Occupations	0%	0%	0%	0%
Healthcare Support Occupations	0%	0%	0%	0%
Protective Service Occupations	110%	119%	138%	136%
Food Preparation and Serving Related Occupations	34%	36%	42%	42%
Building and Grounds Cleaning and Maintenance Occupations	48%	52%	60%	59%
Personal Care and Service Occupations	74%	80%	93%	92%
Sales and Related Occupations	196%	211%	246%	242%
Office and Administrative Support Occupations	97%	105%	122%	121%
Farming, Fishing, and Forestry Occupations	62%	67%	78%	77%
Construction and Extraction Occupations	106%	114%	133%	131%
Installation, Maintenance, and Repair Occupations	158%	170%	198%	195%
Production Occupations	98%	106%	124%	122%
Transportation and Material Moving Occupations	115%	124%	145%	143%

Red indicates a value less than 100% (reflecting the median household income).

Figure 72: Worker Households per 20,000 sq. ft. by AMI Level for Warehousing Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
50% AMI and Below					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.01	0.00	0.00	0.00	0.01
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.00	0.00	0.00	0.01

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
60% AMI (Over 50 to 60% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.02	0.00	0.02	0.04
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.02	0.00	0.02	0.04

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 73: Worker Households per 20,000 sq. ft. by AMI Level for Warehousing Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.01	0.00	0.01
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.01	0.03	0.02	0.03	0.09
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.03	0.03	0.03	0.10

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
100% AMI (Over 80 to 100% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.01	0.00	0.00	0.01
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.01	0.00	0.00	0.01
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.05	0.00	0.00	0.00	0.05
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.07	0.00	0.00	0.00	0.07
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.12	0.02	0.00	0.00	0.14

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 74: Worker Households per 20,000 sq. ft. by AMI Level for Warehousing Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120% AMI (Over 100 to 120% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.01	0.01	0.02
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.01	0.01
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.01	0.00	0.00	0.01
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.14	0.00	0.00	0.14
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.10	0.27	0.00	0.00	0.37
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.18	0.00	0.00	0.18
Transportation and Material Moving Occupations	0.09	0.00	0.00	0.00	0.09
Total	0.19	0.60	0.01	0.02	0.82

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120%+ AMI					
Management Occupations	0.06	0.17	0.09	0.17	0.49
Business and Financial Operations Occupations	0.01	0.03	0.01	0.03	0.08
Computer and Mathematical Occupations	0.01	0.02	0.01	0.02	0.06
Architecture and Engineering Occupations	0.02	0.05	0.03	0.05	0.15
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.01	0.01
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.03	0.08	0.04	0.08	0.23
Office and Administrative Support Occupations	0.00	0.00	0.07	0.14	0.21
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.14	0.27	0.41
Installation, Maintenance, and Repair Occupations	0.02	0.06	0.03	0.06	0.17
Production Occupations	0.00	0.00	0.09	0.18	0.27
Transportation and Material Moving Occupations	0.00	0.24	0.13	0.24	0.61
Total	0.15	0.65	0.64	1.25	2.69

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

LODGING

Figure 75: Income by Occupation for Lodging Building Prototype

Occupation Distribution	Grand Junction	Occup. as Share	Average Income per HH (rounded)	Wrkr Households per 20,000 SF ³
	2024 Average Income ¹	of Lodging Workers ²		Total Wrkr Households
Management Occupations	\$159,478	11.1%	\$17,700	10.3
Business and Financial Operations Occupations	\$0	0.0%	\$0	0.0
Computer and Mathematical Occupations	\$0	0.0%	\$0	0.0
Architecture and Engineering Occupations	\$55,883	2.0%	\$1,140	0.2
Life, Physical, and Social Science Occupations	\$0	0.0%	\$0	0.0
Community and Social Service Occupations	\$0	0.0%	\$0	0.0
Legal Occupations	\$0	0.0%	\$0	0.0
Educational Instruction and Library Occupations	\$0	0.0%	\$0	0.0
Arts, Design, Entertainment, Sports, and Media Occupations	\$27,258	8.2%	\$2,230	0.8
Healthcare Practitioners and Technical Occupations	\$0	0.0%	\$0	0.0
Healthcare Support Occupations	\$0	0.0%	\$0	0.0
Protective Service Occupations	\$15,737	2.7%	\$420	0.3
Food Preparation and Serving Related Occupations	\$17,901	8.2%	\$1,460	0.8
Building and Grounds Cleaning and Maintenance Occupations	\$25,123	42.3%	\$10,640	4.4
Personal Care and Service Occupations	\$114,771	6.3%	\$7,170	0.6
Sales and Related Occupations	\$0	0.0%	\$0	0.0
Office and Administrative Support Occupations	\$26,548	12.0%	\$3,180	1.2
Farming, Fishing, and Forestry Occupations	\$0	0.0%	\$0	0.0
Construction and Extraction Occupations	\$0	0.0%	\$0	0.0
Installation, Maintenance, and Repair Occupations	\$104,367	1.9%	\$2,000	0.2
Production Occupations	\$0	0.0%	\$0	0.0
Transportation and Material Moving Occupations	\$3,934	5.4%	\$210	0.6
Weighted Average Annual Wage		100.0%	\$46,150	10.3

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

2. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary].

3. Worker Household estimate from U.S. Census data and ITE data.

Figure 76: Household Distribution for Lodging Building Prototype

	1 person	2 person	3 person	4+ person	Total
Worker Households per 20,000 sq. ft.¹					
Management Occupations	0.10	0.44	0.33	0.28	1.14
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.02	0.08	0.06	0.05	0.21
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.08	0.32	0.24	0.20	0.84
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.02	0.11	0.08	0.07	0.28
Food Preparation and Serving Related Occupations	0.08	0.32	0.24	0.20	0.84
Building and Grounds Cleaning and Maintenance Occupations	0.39	1.67	1.24	1.06	4.36
Personal Care and Service Occupations	0.06	0.25	0.18	0.16	0.64
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.11	0.47	0.35	0.30	1.23
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.02	0.08	0.06	0.05	0.20
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.05	0.21	0.16	0.13	0.55
Total	0.93	3.95	2.94	2.50	10.30

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 77: Household Income for Lodging Building Prototype

	1 person	2 person	3 person	4+ person	Average
City of Grand Junction Avg. Household Income by Occupation per Household Size¹					
Management Occupations	\$207,322	\$255,165	\$334,904	\$366,800	\$287,061
Business and Financial Operations Occupations	\$0	\$0	\$0	\$0	\$0
Computer and Mathematical Occupations	\$0	\$0	\$0	\$0	\$0
Architecture and Engineering Occupations	\$72,647	\$89,412	\$117,353	\$128,530	\$100,589
Life, Physical, and Social Science Occupations	\$0	\$0	\$0	\$0	\$0
Community and Social Service Occupations	\$0	\$0	\$0	\$0	\$0
Legal Occupations	\$0	\$0	\$0	\$0	\$0
Education, Training, and Library Occupations	\$0	\$0	\$0	\$0	\$0
Arts, Design, Entertainment, Sports, and Media Occupations	\$35,436	\$43,613	\$57,242	\$62,694	\$49,065
Healthcare Practitioners and Technical Occupations	\$0	\$0	\$0	\$0	\$0
Healthcare Support Occupations	\$0	\$0	\$0	\$0	\$0
Protective Service Occupations	\$20,458	\$25,179	\$33,048	\$36,195	\$28,327
Food Preparation and Serving Related Occupations	\$23,271	\$28,641	\$37,592	\$41,172	\$32,221
Building and Grounds Cleaning and Maintenance Occupations	\$32,660	\$40,197	\$52,758	\$57,783	\$45,221
Personal Care and Service Occupations	\$149,202	\$183,634	\$241,019	\$263,973	\$206,588
Sales and Related Occupations	\$0	\$0	\$0	\$0	\$0
Office and Administrative Support Occupations	\$34,512	\$42,476	\$55,750	\$61,060	\$47,786
Farming, Fishing, and Forestry Occupations	\$0	\$0	\$0	\$0	\$0
Construction and Extraction Occupations	\$0	\$0	\$0	\$0	\$0
Installation, Maintenance, and Repair Occupations	\$135,677	\$166,987	\$219,170	\$240,043	\$187,860
Production Occupations	\$0	\$0	\$0	\$0	\$0
Transportation and Material Moving Occupations	\$5,115	\$6,295	\$8,262	\$9,049	\$7,082

1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Grand Junction City Public Use Microdata Area (PUMA) 1001 [2010 PUMA boundary] and 2501 [2020 PUMA boundary]. ACS income adjusted to constant 2022 dollars with ACS data. Average incomes adjusted to 2024 dollars using QCEW percent wage increase in Mesa County from 2022 to 2024.

Figure 78: Percent of Median Income by Household Type and Occupation for Lodging Building Prototype

Area Median Income-->	\$66,000	\$75,400	\$84,800	\$94,200
	1 person	2 person	3 person	4+ person
Percent of Median Income by Occupation				
Management Occupations	314%	338%	395%	389%
Business and Financial Operations Occupations	0%	0%	0%	0%
Computer and Mathematical Occupations	0%	0%	0%	0%
Architecture and Engineering Occupations	110%	119%	138%	136%
Life, Physical, and Social Science Occupations	0%	0%	0%	0%
Community and Social Service Occupations	0%	0%	0%	0%
Legal Occupations	0%	0%	0%	0%
Education, Training, and Library Occupations	0%	0%	0%	0%
Arts, Design, Entertainment, Sports, and Media Occupations	54%	58%	68%	67%
Healthcare Practitioners and Technical Occupations	0%	0%	0%	0%
Healthcare Support Occupations	0%	0%	0%	0%
Protective Service Occupations	31%	33%	39%	38%
Food Preparation and Serving Related Occupations	35%	38%	44%	44%
Building and Grounds Cleaning and Maintenance Occupations	49%	53%	62%	61%
Personal Care and Service Occupations	226%	244%	284%	280%
Sales and Related Occupations	0%	0%	0%	0%
Office and Administrative Support Occupations	52%	56%	66%	65%
Farming, Fishing, and Forestry Occupations	0%	0%	0%	0%
Construction and Extraction Occupations	0%	0%	0%	0%
Installation, Maintenance, and Repair Occupations	206%	221%	258%	255%
Production Occupations	0%	0%	0%	0%
Transportation and Material Moving Occupations	8%	8%	10%	10%

Red indicates a value less than 100% (reflecting the median household income).

Figure 79: Worker Households per 20,000 sq. ft. by AMI Level for Lodging Building Prototype

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
50% AMI and Below					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.02	0.11	0.08	0.07	0.28
Food Preparation and Serving Related Occupations	0.08	0.32	0.24	0.20	0.84
Building and Grounds Cleaning and Maintenance Occupations	0.39	0.00	0.00	0.00	0.39
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.05	0.21	0.16	0.13	0.55
Total	0.54	0.64	0.48	0.40	2.06

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
60% AMI (Over 50 to 60% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.08	0.32	0.00	0.00	0.40
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	1.67	0.00	0.00	1.67
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.11	0.47	0.00	0.00	0.58
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.19	2.46	0.00	0.00	2.65

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 80: Worker Households per 20,000 sq. ft. by AMI Level for Lodging Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
80% AMI (Over 60 to 80% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.24	0.20	0.44
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	1.24	1.06	2.30
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.35	0.30	0.65
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	1.83	1.56	3.39

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
100% AMI (Over 80 to 100% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.00	0.00	0.00
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Figure 81: Worker Households per 20,000 sq. ft. by AMI Level for Lodging Building Prototype (continued)

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120% AMI (Over 100 to 120% AMI)					
Management Occupations	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.02	0.08	0.00	0.00	0.10
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.00	0.00	0.00	0.00	0.00
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.00	0.00	0.00	0.00	0.00
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.08	0.00	0.00	0.10

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Worker Households per 20,000 sq. ft. ¹	1 person	2 person	3 person	4+ person	Total
120%+ AMI					
Management Occupations	0.10	0.44	0.33	0.28	1.15
Business and Financial Operations Occupations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical Occupations	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering Occupations	0.00	0.00	0.06	0.05	0.11
Life, Physical, and Social Science Occupations	0.00	0.00	0.00	0.00	0.00
Community and Social Service Occupations	0.00	0.00	0.00	0.00	0.00
Legal Occupations	0.00	0.00	0.00	0.00	0.00
Education, Training, and Library Occupations	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical Occupations	0.00	0.00	0.00	0.00	0.00
Healthcare Support Occupations	0.00	0.00	0.00	0.00	0.00
Protective Service Occupations	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related Occupations	0.00	0.00	0.00	0.00	0.00
Building and Grounds Cleaning and Maintenance Occupations	0.00	0.00	0.00	0.00	0.00
Personal Care and Service Occupations	0.06	0.25	0.18	0.16	0.65
Sales and Related Occupations	0.00	0.00	0.00	0.00	0.00
Office and Administrative Support Occupations	0.00	0.00	0.00	0.00	0.00
Farming, Fishing, and Forestry Occupations	0.00	0.00	0.00	0.00	0.00
Construction and Extraction Occupations	0.00	0.00	0.00	0.00	0.00
Installation, Maintenance, and Repair Occupations	0.02	0.08	0.06	0.05	0.21
Production Occupations	0.00	0.00	0.00	0.00	0.00
Transportation and Material Moving Occupations	0.00	0.00	0.00	0.00	0.00
Total	0.18	0.77	0.63	0.54	2.12

1. U.S. Census, ACS 2018-22 (PUMS for Grand Junction); TischlerBise analysis.

Draft 2024 Impact Fee Study

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EXECUTIVE SUMMARY

Impact fees are one-time payments for new development's proportionate share of the capital cost of infrastructure. The following study addresses the City of Grand Junction's Municipal Facilities, Fire, Police, Multimodal Transportation, and Parks & Recreation facilities. Impact fees do have limitations and should not be regarded as the total solution for infrastructure funding. Rather, they are one component of a comprehensive funding strategy to ensure provision of adequate public facilities. Impact fees may only be used for capital improvements or debt service for growth-related infrastructure. They may not be used for operations, maintenance, replacement of infrastructure, or correcting existing deficiencies. Although Colorado is a "home-rule" state and home-rule municipalities were already collecting "impact fees" under their home-rule authority granted in the Colorado Constitution, the Colorado Legislature passed enabling legislation in 2001, as discussed further below.

COLORADO IMPACT FEE ENABLING LEGISLATION

For local governments, the first step in evaluating funding options for facility improvements is to determine basic options and requirements established by state law. Some states have more conservative legal parameters that basically restrict local government to specifically authorized actions. In contrast, "home-rule" states grant local governments broader powers that may or may not be precluded or preempted by state statutes depending on the circumstances and on the state's particular laws. Home rule municipalities in Colorado have the authority to impose impact fees based on both their home rule power granted in the Colorado Constitution and the impact fee enabling legislation enacted in 2001 by the Colorado General Assembly.

Impact fees are one-time payments imposed on new development that must be used solely to fund growth-related capital projects, typically called "system improvements". An impact fee represents new growth's proportionate share of capital facility needs. In contrast to project-level improvements, impact fees fund infrastructure that will benefit multiple development projects, or even the entire service area, as long as there is a reasonable relationship between the new development and the need for the growth-related infrastructure.

According to Colorado Revised Statute Section 29-20-104.5, impact fees must be legislatively adopted at a level no greater than necessary to defray impacts generally applicable to a broad class of property. The purpose of impact fees is to defray capital costs directly related to proposed development. The statutes of other states allow impact fee schedules to include administrative costs related to impact fees and the preparation of capital improvement plans, but this is not specifically authorized in Colorado's statute. Impact fees do have limitations and should not be regarded as the total solution for infrastructure funding. Rather, they are one component of a comprehensive portfolio to ensure adequate provision of public facilities. Because system improvements are larger and costlier, they may require bond financing and/or funding from other revenue sources. To be funded by impact fees, Section 29-20-104.5 requires that the capital improvements must have a useful life of at least five years. By law, impact fees can only be used for capital improvements, not operating or maintenance costs. Also, impact fees cannot be used to repair or correct existing deficiencies in existing infrastructure.

ADDITIONAL LEGAL GUIDELINES

Both state and federal courts have recognized the imposition of impact fees on development as a legitimate form of land use regulation, provided the fees meet standards intended to protect against regulatory takings. Land use regulations, development exactions, and impact fees are subject to the Fifth Amendment prohibition on taking of private property for public use without just compensation. To comply with the Fifth Amendment, development regulations must be shown to substantially advance a legitimate governmental interest. In the case of impact fees, that interest is the protection of public health, safety, and welfare by ensuring development is not detrimental to the quality of essential public services. The means to this end is also important, requiring both procedural and substantive due process. The process followed to receive community input (i.e. stakeholder meetings, work sessions, and public hearings) provides opportunities for comments and refinements to the impact fees.

There is little federal case law specifically dealing with impact fees, although other rulings on other types of exactions (e.g., land dedication requirements) are relevant. In one of the most important exaction cases, the U. S. Supreme Court found that a government agency imposing exactions on development must demonstrate an “essential nexus” between the exaction and the interest being protected (see *Nollan v. California Coastal Commission*, 1987). In a more recent case (*Dolan v. City of Tigard, OR*, 1994), the Court ruled that an exaction also must be “roughly proportional” to the burden created by development.

There are three reasonable relationship requirements for impact fees that are closely related to “rational nexus” or “reasonable relationship” requirements enunciated by a number of state courts. Although the term “dual rational nexus” is often used to characterize the standard by which courts evaluate the validity of impact fees under the U.S. Constitution, TischlerBise prefers a more rigorous formulation that recognizes three elements: “need,” “benefit,” and “proportionality.” The dual rational nexus test explicitly addresses only the first two, although proportionality is reasonably implied, and was specifically mentioned by the U.S. Supreme Court in the *Dolan* case. Individual elements of the nexus standard are discussed further in the following paragraphs.

All new development in a community creates additional demands on some, or all, public facilities provided by local government. If the capacity of facilities is not increased to satisfy that additional demand, the quality or availability of public services for the entire community will deteriorate. Impact fees may be used to cover the cost of development-related facilities, but only to the extent that the need for facilities is a consequence of development that is subject to the fees. The *Nollan* decision reinforced the principle that development exactions may be used only to mitigate conditions created by the developments upon which they are imposed. That principle likely applies to impact fees. In this study, the impact of development on infrastructure needs is analyzed in terms of quantifiable relationships between various types of development and the demand for specific facilities, based on applicable level-of-service standards.

The requirement that exactions be proportional to the impacts of development was clearly stated by the U.S. Supreme Court in the Dolan case and is logically necessary to establish a proper nexus. Proportionality is established through the procedures used to identify development-related facility costs, and in the methods used to calculate impact fees for various types of facilities and categories of development. The demand for facilities is measured in terms of relevant and measurable attributes of development (e.g. persons per household).

A sufficient benefit relationship requires that impact fee revenues be segregated from other funds and expended only on the facilities for which the fees were charged. The calculation of impact fees should also assume that they will be expended in a timely manner and the facilities funded by the fees must serve the development paying the fees. However, nothing in the U.S. Constitution or the state enabling legislation requires that facilities funded with fee revenues be available exclusively to development paying the fees. In other words, benefit may extend to a general area including multiple real estate developments. Procedures for the earmarking and expenditure of fee revenues are discussed near the end of this study. All of these procedural as well as substantive issues are intended to ensure that new development benefits from the impact fees they are required to pay. The authority and procedures to implement impact fees is separate from and complementary to the authority to require improvements.

DEVELOPMENT FEE METHODS AND COST COMPONENTS

Figure 1 summarizes service areas, methodology, and infrastructure cost components for each development fee.

Figure 1. Summary of City of Grand Junction Impact Fees

Fee Category	Service Area	Incremental Expansion	Plan-Based	Cost Recovery	Cost Allocation
Fire	Citywide	Facilities, Apparatus	N/A	N/A	Population & Vehicle Trips
Municipal Facilities	Citywide	Municipal Facilities	N/A	N/A	Population & Jobs
Parks and Recreation	201 Service Bdry	Park Land, Open Space, Park Improvements	N/A	N/A	Population
Police	Citywide	Facilities	N/A	N/A	Population & Vehicle Trips
Transportation	Citywide	Principal Arterial, Minor Arterial, Major Collector, Minor Collector, Trail	N/A	N/A	Person Miles Traveled (PMT)

CURRENT IMPACT FEES

Figure 2 provides a schedule of Grand Junction’s current impact fees.

Figure 2. Current Impact Fees

Residential Fees per Development Unit							
Development Type	Development Unit	Fire	Municipal Facilities	Parks and Recreation	Police	Transportation	Current Fees
Single <1,250 sq ft	Dwelling	\$805	\$0	\$1,429	\$346	\$3,285	\$5,865
Single 1,250 - 1,649 sq ft	Dwelling	\$805	\$0	\$1,429	\$346	\$5,028	\$7,608
Single 1,650 - 2,299 sq ft	Dwelling	\$805	\$0	\$1,429	\$346	\$5,738	\$8,318
Single 2,300 or more sq ft	Dwelling	\$805	\$0	\$1,429	\$346	\$7,515	\$10,095
Mobile Home	Pad	\$805	\$0	\$1,429	\$346	\$3,411	\$5,991
Multi-Family	Dwelling	\$530	\$0	\$962	\$227	\$3,075	\$4,794

Nonresidential Fees per Development Unit							
Development Type	Development Unit	Fire	Municipal Facilities	Parks and Recreation	Police	Transportation	Current Fees
Retail/Commercial	1,000 SF	\$554	\$0	\$0	\$234	\$7,713	\$8,501
Convenience Commercial	1,000 SF	\$554	\$0	\$0	\$234	\$16,396	\$17,184
Office	1,000 SF	\$217	\$0	\$0	\$92	\$6,189	\$6,498
Institutional/Public	1,000 SF	\$217	\$0	\$0	\$92	\$1,522	\$1,831
Industrial	1,000 SF	\$75	\$0	\$0	\$32	\$2,161	\$2,268
Warehousing	1,000 SF	\$39	\$0	\$0	\$16	\$983	\$1,038
Hotel/Lodging	1,000 SF	\$554	\$0	\$0	\$234	\$0	\$788
Hotel/Lodging	Room	\$0	\$0	\$0	\$0	\$4,239	\$4,239
RV Park	Pad	\$530	\$0	\$0	\$227	\$3,411	\$4,168

MAXIMUM SUPPORTABLE IMPACT FEES

Figure 3 provides a schedule of the maximum supportable impact fees. The fees represent the highest amount supportable for each type of residential and nonresidential unit, which represents new growth’s fair share of the cost for capital facilities. The City may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 3. Maximum Supportable Impact Fees

Residential Fees per Development Unit							
Unit Size	Development Unit	Fire	Municipal Facilities	Parks and Recreation	Police	Transportation	Maximum Supportable
850 or less	Dwelling	\$501	\$506	\$1,824	\$215	\$3,750	\$6,796
851 to 1,000	Dwelling	\$648	\$655	\$2,358	\$278	\$4,805	\$8,744
1,001 to 1,250	Dwelling	\$822	\$830	\$2,991	\$352	\$6,059	\$11,054
1,251 to 1,500	Dwelling	\$1,016	\$1,026	\$3,696	\$435	\$7,437	\$13,610
1,501 to 2,000	Dwelling	\$1,276	\$1,289	\$4,644	\$547	\$9,285	\$17,041
2,001 to 2,500	Dwelling	\$1,550	\$1,566	\$5,641	\$664	\$11,217	\$20,638
2,501 to 3,000	Dwelling	\$1,764	\$1,782	\$6,419	\$756	\$12,755	\$23,476
3,001 to 3,500	Dwelling	\$1,944	\$1,964	\$7,075	\$833	\$14,030	\$25,846
3,501 to 4,000	Dwelling	\$2,098	\$2,120	\$7,634	\$899	\$15,138	\$27,889
4,001 to 4,500	Dwelling	\$2,232	\$2,255	\$8,121	\$956	\$16,112	\$29,676
4,501 or more	Dwelling	\$2,352	\$2,376	\$8,558	\$1,008	\$16,956	\$31,250

Nonresidential Fees per Development Unit							
Development Type	Development Unit	Fire	Municipal Facilities	Parks and Recreation	Police	Transportation	Maximum Supportable
Retail/Commercial	1,000 SF	\$1,445	\$876	\$0	\$607	\$10,927	\$13,855
Convenience Commercial	1,000 SF	\$1,989	\$3,854	\$0	\$836	\$15,041	\$21,720
Office	1,000 SF	\$641	\$1,342	\$0	\$270	\$6,553	\$8,806
Institutional/Public	1,000 SF	\$638	\$1,178	\$0	\$268	\$6,513	\$8,597
Industrial	1,000 SF	\$200	\$478	\$0	\$84	\$2,035	\$2,797
Warehousing	1,000 SF	\$102	\$140	\$0	\$43	\$1,034	\$1,319
Hotel/Lodging	Room	\$473	\$230	\$0	\$199	\$4,831	\$5,733
RV Park	Pad	\$160	\$21	\$0	\$67	\$1,632	\$1,880

GENERAL METHODS FOR IMPACT FEES

There are three general methods for calculating impact fees. The choice of a particular method depends primarily on the timing of infrastructure construction (past, concurrent, or future) and service characteristics of the facility type being addressed. Each method has advantages and disadvantages in a particular situation and can be used simultaneously for different cost components.

Reduced to its simplest terms, the process of calculating impact fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities within the designated service area. The following paragraphs discuss three basic methods for calculating impact fees and how those methods can be applied to City of Grand Junction.

Cost Recovery Method (past improvements)

The rationale for recoupment, or cost recovery, is that new development is paying for its share of the useful life and remaining capacity of facilities already built, or land already purchased, from which new growth will benefit. This methodology is often used for utility systems that must provide adequate capacity before new development can take place.

Incremental Expansion Method (concurrent improvements)

The incremental expansion method documents current level-of-service (LOS) standards for each type of public facility, using both quantitative and qualitative measures. This approach assumes there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. Revenue will be used to expand or provide additional facilities, as needed, to accommodate new development. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments to keep pace with development.

Plan-Based Method (future improvements)

The plan-based method allocates costs for a specified set of improvements to a specified amount of development. Improvements are typically identified in a long-range facility plan and development potential is identified by a land use plan. There are two basic options for determining the cost per demand unit: (1) total cost of a public facility can be divided by total demand units (average cost), or (2) the growth-share of the public facility cost can be divided by the net increase in demand units over the planning timeframe (marginal cost).

EVALUATION OF CREDITS

Regardless of the methodology, a consideration of “credits” is integral to the development of a legally defensible impact fee methodology. There are two types of “credits” with specific characteristics, both of which should be addressed in impact fee studies and ordinances. The first is a revenue credit due to possible double payment situations, which could occur when other revenues may contribute to the capital costs of infrastructure covered by the impact fee. This type of credit is integrated into the Fire and Police impact fee calculations, thus reducing the fee amount. The second is a site-specific credit or developer reimbursement for construction of system improvements. This type of credit is addressed in the administration and implementation of the development impact fee program.

Please note, calculations throughout this report are based on an analysis conducted using MS Excel software. Results are discussed in the memo using one- and two-digit places (in most cases). Figures are typically either truncated or rounded. In some instances, the analysis itself uses figures carried to their ultimate decimal places; therefore, the sums and products generated in the analysis may not equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to the rounding of figures shown, not in the analysis).

FIRE IMPACT FEE

The Fire impact fees include components for station space and apparatus. The incremental expansion methodology is used for both fee components. The Fire impact fee is calculated on a per capita basis for residential development and a per vehicle trip basis for nonresidential development.

The residential fire impact fees are calculated per housing unit. Because the Grand Junction Fire Department also provides emergency medical services and these calls represent the largest percentage of calls to which the Department responds, TischlerBise recommends using nonresidential vehicle trips as the best demand indicator for fire facilities and apparatus, as the trip rates will reflect the presence of people at nonresidential land uses. For example, vehicle trips are highest for commercial/retail developments, such as shopping centers, and lowest for industrial development. Office and institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for fire and emergency medical services and facilities from nonresidential development. Other possible nonresidential demand indicators, such as employment or floor area, will not accurately reflect the demand for service. For example, if employees per thousand square feet were used as the demand indicator, fire impact fees would be too high for office and institutional development because offices typically have more employees per 1,000 square feet than retail uses.

SERVICE AREA

The Grand Junction Fire Department serves an area greater than the City of Grand Junction. Because of this, that portion of the demand cannot be attributed to City residents and businesses, or the impact fees will be disproportionate to demand. Therefore, we asked the Grand Junction Fire Department to conduct an analysis of calls for service inside and outside the City in to determine the amount of activity directed toward residents and businesses inside the City limits. As shown in Figure F1, over the last two calendar years, the City of Grand Junction Fire Department has responded to slightly over 42,000 incidents. Of that total, 83 percent of the incidents were inside the City limits.

Figure F1. Fire and EMS Incident Data for Two-Year Period

Location	Incidents	%
Inside the City	34,918	83%
Incidents outside the City	7,152	17%
Total	42,070	100%

Source: Grand Junction Fire Department

PROPORTIONATE SHARE FACTORS

Both residential and nonresidential developments increase the demand on Fire facilities and vehicles. To calculate the proportional share between residential and nonresidential demand on Fire facilities and vehicles, a functional population approach is used. The functional population approach allocates the cost of the facilities to residential and nonresidential development based on the activity of residents and workers in the City through the 24 hours in a day.

Residents that do not work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in Grand Junction are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside Grand Junction are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2021 functional population data (the latest year available) for Grand Junction, the cost allocation for residential development is 63 percent while nonresidential development accounts for 37 percent of the demand for Fire infrastructure, see Figure F2.

Figure F2. City of Grand Junction Functional Population

Demand Units in 2021				
Residential			Demand Hours/Day	Person Hours
Population	62,544			
Residents Not Working	37,046		20	740,920
Employed Residents	25,498			
Employed in Grand Junction	17,052		14	238,728
Employed outside Grand Junction	8,446		14	118,244
Residential Subtotal				1,097,892
			Residential Share	63%
Nonresidential				
Non-working Residents	37,046		4	148,184
Jobs Located in Grand Junction	49,018			
Residents Employed in Grand Junction	17,052		10	170,520
Nonresident Workers (Inflow Commuters)	31,966		10	319,660
Nonresidential Subtotal				638,364
			Nonresidential Share	37%
Total				1,736,256

Source: U.S. Census Bureau (population), U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, Version 6.24.1 (employment).

IMPACT FEE COMPONENTS

Fire Facilities

The incremental expansion component of the Fire impact fee is based on an inventory of existing Citywide facilities. It is important to note the existing inventory includes Station No. 7, which is under construction now and will be open around the time of the impact fee adoption. Therefore, the level of service standards are based on the projected 2025 demand units. The use of existing standards means there are no existing infrastructure deficiencies. The floor area has been provided by the City of Grand Junction staff.

As shown in Figure F3, the Fire Department occupies 99,277 square feet in 10 different facilities. To determine the level of service factors for the impact fee calculation, the amount of facility square footage (99,277) is multiplied by the percentage of activity directed inside the City limits (83%) and then by the functional population split for the City of Grand Junction (found in Figure F2) is used to allocate the square footage and corresponding replacement cost of the fire stations in Figure F3. For example, of the 99,277 square feet of fire space in the City, 82,400 square feet is directed toward City of Grand Junction (99,277 multiplied by 83%). Of this 82,400 impact fee eligible square footage, 51,912 square feet is allocated to residential growth and 30,488 square feet is allocated to nonresidential development.

The allocated square feet of the Grand Junction fire stations are divided by the 2025 residential and nonresidential demand units (population and nonresidential vehicle trips). The result is the current level of service for fire stations in the City. Specifically, there is 0.772 square feet of fire station space per capita and 0.137 square feet per nonresidential vehicle trip.

To estimate the replacement cost of the fire stations, the average cost of \$725 per square foot is used. This figure is based on the recent Station No. 7 construction cost. To find the cost per person or cost per nonresidential vehicle trip, the level of service standards is applied to the cost per square foot for fire stations. For example, the residential cost per person is \$559.71 (0.772 square feet per person x \$725 per square foot = \$559.71 per person).

Figure F3. Fire Facilities Level of Service and Cost Factors

Description	Square Feet
Fire Administration Building	14,576
Fire Station No. 1	13,331
Fire Station No. 2	8,461
Fire Station No. 3	10,500
Fire Station No. 4	9,335
Fire Station No. 5 Annex	1,916
Fire Station No. 5	7,291
Fire Station No. 6	10,500
Fire Station No. 7	10,500
Fire Station No. 8	10,500
Fire Training Center	2,367
Total	99,277

Level-of-Service (LOS) Standards

Percentage of Activity in City of Grand Junction	83%
Population in 2025	67,242
Nonresidential Vehicle Trips in 2025	222,710
Residential Share	63%
Nonresidential Share	37%
LOS: Sq. Ft. per Person	0.772
LOS: Sq. Ft. per Vehicle Trip	0.137

Cost Analysis

Cost per Square Foot*	\$725
LOS: Square Feet per Person	0.772
Cost per Person	\$559.71
LOS: Square Feet per Vehicle Trip	0.137
Cost per Vehicle Trip	\$99.25

*Source: City of Grand Junction. Based on Station 7 Cost

Fire Apparatus

The second component of the Fire impact fee is fire apparatus. Similar to the station component, the current inventory includes apparatus that will be owned by the City when Station No. 7 opens in 2025. Therefore, the level of service standards are based on the projected 2025 demand units. The City's current inventory of apparatus is contained in Figure F4, which consists of 51 pieces with a total replacement value of \$17 million, or an average cost of \$334,922 per piece of apparatus. Similar to the facilities component, the apparatus inventory is compared to the percentage of activity directed inside the City of Grand Junction and then allocated based on the proportionate share factors shown in Figure F2. For example, of the 51 pieces of apparatus in the City, approximately 42 pieces of the inventory are directed toward City of Grand Junction (51 pieces of apparatus multiplied by 83%). Of the 42 pieces of impact fee eligible apparatus, approximately 27 pieces are allocated to residential growth and approximately 16 pieces are allocated to nonresidential growth. These allocations are divided by the demand units (population for residential development and nonresidential vehicle trips for nonresidential development) to calculate the current level of service. The current level of service is multiplied by the weighted average cost per fire apparatus to calculate the cost per capita and nonresidential vehicle trip.

For example, there is .00040 pieces of fire apparatus per person in Grand Junction ($26.6 \text{ apparatus} / 67,242 \text{ persons} = .00040 \text{ apparatus per person}$). As discussed above, a new piece of fire apparatus has an average cost of \$334,922, which results in the residential cost equaling \$132.83 per person ($.00040 \text{ vehicles per person} \times \$353,155 \text{ per apparatus} = \$132.83 \text{ per person}$).

Figure F4. Fire Apparatus Inventory and Level of Service

Description	Model	# of Units	Unit Cost	Total Cost
Truck	Smeal 105' Quint	1	\$1,700,000	\$1,700,000
Truck	Smeal 75' Quint	1	\$1,700,000	\$1,700,000
Engine	Smeal	4	\$1,000,000	\$4,000,000
Engine	E-One Pumper	1	\$1,000,000	\$1,000,000
Engine	Pierce Enforcer	4	\$1,000,000	\$4,000,000
Battalion Chief	Dodge Ram 1500	1	\$86,000	\$86,000
Hazmat	BLM	1	\$263,000	\$263,000
Ambulance	Dodge/Ford/Chevy	14	\$86,000	\$1,204,000
Rescue	SVI Heavy Rescue Truck	1	\$1,000,000	\$1,000,000
Brush Engine	HME/BME	2	\$375,000	\$750,000
Brush Truck	Largo Tank	1	\$375,000	\$375,000
Tender	International	1	\$350,000	\$350,000
UTV	Yamaha	2	\$25,000	\$50,000
ATV	Suzuki	1	\$12,000	\$12,000
Air Trailer	Misc	1	\$40,000	\$40,000
Trailers	Trench/Confined Space/Flat	4	\$10,000	\$40,000
Administrative	SUVs	5	\$41,000	\$205,000
Administrative	Pickups	6	\$51,000	\$306,000
Total**		51	\$334,922	\$17,081,000

Level-of-Service (LOS) Standards**

Percentage of Activity in City of Grand Junction	83%
Population in 2025	67,242
Nonresidential Vehicle Trips in 2025	222,710
Residential Share	63%
Nonresidential Share	37%
LOS: Units per Person	0.00040
LOS: Units per Vehicle Trip	0.00007

Cost Analysis

Average Cost per Unit	\$334,922
LOS: Units per Person	0.00040
Cost per Person	\$132.83
LOS: Units per Vehicle Trip	0.00007
Cost per Vehicle Trip	\$23.55

*Source: City of Grand Junction.

**Base Year assumptions have been set to 2025 to include Station 7 Apparatus

PROJECTION OF GROWTH-RELATED FIRE NEEDS

To estimate the demand for future Fire station space, the current level of service (0.772 square feet per person and 0.137 square feet per nonresidential vehicle trip) is applied to the residential and nonresidential growth projected for the City of Grand Junction. As shown in Figure F5, the City is projected to increase by 17,256 residents and 42,895 nonresidential vehicle trips over the next ten years (see Appendix A). As shown in Figure F5, there is a projected need for 19,194 square feet of Fire station space in the City to accommodate the growth at the present level of service. By applying the average cost of a building (\$725 per square feet), the total projected expenditure to accommodate new development is estimated at approximately \$13.9 million.

Figure F5. 10-Year Fire Infrastructure Needs to Accommodate Growth

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost
Fire Facilities	Residential	0.772	Square Feet	per Person
	Nonresidential	0.137		per Vehicle Trip
				\$725

Growth-Related Need for Fire Facilities						
Year	Population	Nonresidential Vehicle Trips	Residential Square Feet	Nonresidential Square Feet	Total	
Base 2024	65,517	218,420	50,580	29,901	80,480	
Year 1 2025	67,242	222,710	51,912	30,488	82,400	
Year 2 2026	68,968	226,999	53,244	31,075	84,319	
Year 3 2027	70,694	231,289	54,576	31,662	86,239	
Year 4 2028	72,419	235,579	55,909	32,250	88,158	
Year 5 2029	74,145	239,868	57,241	32,837	90,078	
Year 6 2030	75,871	244,158	58,573	33,424	91,997	
Year 7 2031	77,596	248,447	59,905	34,011	93,916	
Year 8 2032	79,322	252,737	61,237	34,598	95,836	
Year 9 2033	81,048	257,026	62,570	35,186	97,755	
Year 10 2034	82,773	261,316	63,902	35,773	99,675	
Ten-Year Increase	17,256	42,895	13,322	5,872	19,194	
			Projected Expenditure	\$9,658,550	\$4,257,315	\$13,915,865
					Growth-Related Expenditure on Fire Facilities	
					\$13,915,865	

To estimate the demand for future Fire apparatus, the current level of service (0.00040 apparatus per person and 0.00007 vehicles per nonresidential vehicle trip) is applied to the residential and nonresidential growth projected for the City of Grand Junction. The City is projected to increase by 17,256 residents and 42,895 nonresidential vehicle trips over the next ten years (see Appendix A). As shown in Figure F6, there is a projected need for approximately 10 additional growth-related pieces of apparatus. By applying the average cost of a vehicle (\$334,922), the total projected growth-related expenditure is estimated at approximately \$3.3 million.

Figure F6. 10-Year Fire Apparatus Needs to Accommodate Growth

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost
Fire Apparatus	Residential	0.00040	Units	\$334,922
	Nonresidential	0.00007		

Growth-Related Need for Apparatus						
Year	Population	Nonresidential Vehicle Trips	Residential Apparatus	Nonresidential Apparatus	Total	
Base 2024	65,517	218,420	26.0	15.4	41.3	
Year 1 2025	67,242	222,710	26.7	15.7	42.3	
Year 2 2026	68,968	226,999	27.4	16.0	43.3	
Year 3 2027	70,694	231,289	28.0	16.3	44.3	
Year 4 2028	72,419	235,579	28.7	16.6	45.3	
Year 5 2029	74,145	239,868	29.4	16.9	46.3	
Year 6 2030	75,871	244,158	30.1	17.2	47.3	
Year 7 2031	77,596	248,447	30.8	17.5	48.2	
Year 8 2032	79,322	252,737	31.5	17.8	49.2	
Year 9 2033	81,048	257,026	32.1	18.1	50.2	
Year 10 2034	82,773	261,316	32.8	18.4	51.2	
Ten-Year Increase	17,256	42,895	6.8	3.0	9.9	
Projected Expenditure			\$2,292,126	\$1,010,328	\$3,302,454	
Growth-Related Expenditure on Fire Apparatus					\$3,302,454	

PRINCIPAL PAYMENT CREDIT

The City of Grand Junction has existing debt obligations from past fire facility projects: Tax Revenue Bond Series 2010A and Tax Revenue Build America Bond Series 2010B. The proceeds from these bonds funded several fire facilities including Fire Station #1, #2 and the Fire Administration building for a total of \$7,100,000 of improvements, representing 20 percent of the 2010 Bonds. This bond series was refinanced in 2019 at a lower interest rate of 5.05%. Figure F8 lists the remaining principal payment schedules for the bonds. The fire department’s total remaining principal on the bond is \$4.6 million.

The total remaining annual principal payment schedule is distributed to the equivalent residential and nonresidential share, City’s population and vehicle trip ends, to find the debt cost per attributed user. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (5.0%) rate. As shown in Figure F7, this results in a credit of \$24.37 per person, and \$4.47 per nonresidential trip end.

Figure F7. Principal Payment Credit

Year	Principal Payment (20% of Bond)	Res. Share 63%	Population	Debt Cost per Capita	Nonres. Share 37%	Nonres. Vehicle Trips	Debt Cost per Trip
2024	\$197,000	\$124,110	65,517	\$1.89	\$72,890	218,420	\$0.33
2025	\$198,000	\$124,740	67,242	\$1.86	\$73,260	222,710	\$0.33
2026	\$208,000	\$131,040	68,968	\$1.90	\$76,960	226,999	\$0.34
2027	\$218,000	\$137,340	70,694	\$1.94	\$80,660	231,289	\$0.35
2028	\$229,000	\$144,270	72,419	\$1.99	\$84,730	235,579	\$0.36
2029	\$240,000	\$151,200	74,145	\$2.04	\$88,800	239,868	\$0.37
2030	\$252,000	\$158,760	75,871	\$2.09	\$93,240	244,158	\$0.38
2031	\$265,000	\$166,950	77,596	\$2.15	\$98,050	248,447	\$0.39
2032	\$278,000	\$175,140	79,322	\$2.21	\$102,860	252,737	\$0.41
2033	\$292,000	\$183,960	81,048	\$2.27	\$108,040	257,026	\$0.42
2034	\$306,000	\$192,780	82,773	\$2.33	\$113,220	261,316	\$0.43
2035	\$322,000	\$202,860	84,499	\$2.40	\$119,140	265,605	\$0.45
2036	\$335,000	\$211,050	86,224	\$2.45	\$123,950	269,895	\$0.46
2037	\$348,000	\$219,240	87,950	\$2.49	\$128,760	274,184	\$0.47
2038	\$362,000	\$228,060	89,676	\$2.54	\$133,940	278,474	\$0.48
2039	\$376,000	\$236,880	91,401	\$2.59	\$139,120	282,763	\$0.49
2040	\$388,000	\$244,440	93,127	\$2.62	\$143,560	287,053	\$0.50
Total	\$4,814,000	\$3,032,820		\$37.76	\$1,781,180		\$6.96

Discount Rate	5.0%		5.0%
Net Present Value	\$24.37		\$4.47

MAXIMUM SUPPORTABLE FIRE IMPACT FEE

Figure F8 shows the maximum supportable Fire Impact Fee. Impact fees for Fire are based on persons per housing unit for residential development and vehicle trips per 1,000 square feet for nonresidential development. For residential development, the total cost per person is multiplied by the persons per housing unit to calculate the proposed fee. For nonresidential development, the total cost per vehicle trip is multiplied by the trips per 1,000 square feet, hotel room or other applicable factor to calculate the proposed fee.

The fees represent the highest amount supportable for each type of development, which represents new growth's fair share of the cost for capital facilities. The City may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure F8. Maximum Supportable Fire Impact Fee

Fee Component	Cost per Person	Cost per Trip
Facilities	\$559.71	\$99.25
Apparatus	\$132.83	\$23.55
Principal Payment Credit	(\$24.37)	(\$4.47)
Total	\$668.16	\$118.34

Residential Fees per Development Unit					
Unit Size	Development Unit	Persons per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
850 or less	Dwelling	0.75	\$501	\$530	(\$29)
851 to 1,000	Dwelling	0.97	\$648	\$530	\$118
1,001 to 1,250	Dwelling	1.23	\$822	\$530	\$292
1,251 to 1,500	Dwelling	1.52	\$1,016	\$805	\$211
1,501 to 2,000	Dwelling	1.91	\$1,276	\$805	\$471
2,001 to 2,500	Dwelling	2.32	\$1,550	\$805	\$745
2,501 to 3,000	Dwelling	2.64	\$1,764	\$805	\$959
3,001 to 3,500	Dwelling	2.91	\$1,944	\$805	\$1,139
3,501 to 4,000	Dwelling	3.14	\$2,098	\$805	\$1,293
4,001 to 4,500	Dwelling	3.34	\$2,232	\$805	\$1,427
4,501 or more	Dwelling	3.52	\$2,352	\$805	\$1,547

Nonresidential Fees per Development Unit					
Development Type	Development Unit	Vehicle Trips per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
Retail/Commercial	1,000 SF	12.21	\$1,445	\$554	\$891
Convenience Commercial	1,000 SF	16.81	\$1,989	\$554	\$1,435
Office	1,000 SF	5.42	\$641	\$217	\$424
Institutional/Public	1,000 SF	5.39	\$638	\$217	\$421
Industrial	1,000 SF	1.69	\$200	\$75	\$125
Warehousing	1,000 SF	0.86	\$102	\$39	\$63
Hotel/Lodging	Room	4.00	\$473	\$554	(\$81)
RV Park	Pad	1.35	\$160	\$530	(\$370)

1. See Land Use Assumptions

REVENUE FROM FIRE IMPACT FEE

Revenue from the Fire Impact Fee is estimated in Figure F9. There is projected to be 8,180 new housing units and almost 6.6 million square feet of new nonresidential development in Grand Junction by 2034. To find the revenue from each development type, the fee is multiplied by the growth. Overall, the approximately \$16.6 million in revenue from the impact fee covers approximately 97 percent of the capital costs generated by projected growth in the City of Grand Junction.

Figure F9. Estimated Revenue from Fire Impact Fee

Infrastructure Costs for Fire

	Total Cost	Growth Cost
Facilities	\$13,915,865	\$13,915,865
Apparatus	\$3,302,454	\$3,302,454
Total Expenditures	\$17,218,319	\$17,218,319

Projected Fire and Rescue Impact Fee Revenue

		Single-Family \$1,550 per Unit	Multi-Family \$1,016 per Unit	Retail/Comm. \$1,445 per KSF	Office \$641 per KSF	Inst./Public \$638 per KSF	Industrial \$200 per KSF
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF
Base	2024	23,347	8,140	10,242	7,639	7,366	7,275
1	2025	23,960	8,345	10,426	7,756	7,584	7,416
2	2026	24,573	8,550	10,610	7,872	7,802	7,557
3	2027	25,186	8,755	10,794	7,988	8,020	7,697
4	2028	25,799	8,960	10,978	8,105	8,239	7,838
5	2029	26,412	9,165	11,162	8,221	8,457	7,979
6	2030	27,025	9,370	11,346	8,337	8,675	8,120
7	2031	27,638	9,575	11,530	8,453	8,893	8,261
8	2032	28,251	9,780	11,714	8,570	9,111	8,401
9	2033	28,864	9,985	11,898	8,686	9,329	8,542
10	2034	29,477	10,190	12,082	8,802	9,548	8,683
Ten-Year Increase		6,130	2,050	1,840	1,163	2,182	1,408
Projected Revenue =>		\$9,501,500	\$2,082,800	\$2,658,986	\$745,293	\$1,391,800	\$281,534
Projected Revenue =>							\$16,661,913
Total Expenditures =>							\$17,218,319
General Fund's Share =>							\$556,406

MUNICIPAL FACILITIES IMPACT FEE

The Municipal Facilities impact fee include components for municipal buildings related to general government and general services functions. The incremental expansion is utilized for this fee calculation. The Municipal Facilities impact fee is calculated on a per capita basis for residential development and a per employee basis for nonresidential development. The residential portion is derived from the product of persons per housing unit (by size of home) multiplied by the net cost per person. The nonresidential portion is derived from the product of employees per 1,000 square feet of nonresidential space multiplied by the net cost per employee (job).

SERVICE AREA

The City of Grand Junction provides general government services throughout the City; therefore, there is a single service area for the Municipal Facilities impact fees.

PROPORTIONATE SHARE FACTORS

Both residential and nonresidential developments increase the demand on Municipal Facilities infrastructure. To calculate the proportionate share between residential and nonresidential demand on Municipal Facilities infrastructure, a functional population approach is used. The functional population approach allocates the cost of the facilities to residential and nonresidential development based on the activity of residents and workers in the City through the 24 hours in a day.

Residents that do not work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in Grand Junction are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside Grand Junction are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2021 (the latest year available) functional population data for Grand Junction, the cost allocation for residential development is 63 percent while nonresidential development accounts for 37 percent of the demand for municipal facilities, see Figure M1.

Figure M1. City of Grand Junction Functional Population

Demand Units in 2021		Demand Hours/Day	Person Hours	Proportionate Share
Residential				
Estimated Residents	62,544			
Residents Not Working	37,046	20	740,920	
Employed Residents	25,498			
Employed in Grand Junction	17,052	14	238,728	
Employed outside Grand Junction	8,446	14	118,244	
<i>Residential Subtotal</i>			1,097,892	63%
Nonresidential				
Non-working Residents	37,046	4	148,184	
Jobs Located in Grand Junction	49,018			
Residents Employed in Grand Junction	17,052	10	170,520	
Nonresident Workers (Inflow Commuters)	31,966	10	319,660	
<i>Nonresidential Subtotal</i>			638,364	37%
TOTAL			1,736,256	100%

IMPACT FEE COMPONENTS

Municipal Facilities

The Municipal Facilities Impact Fee is based on ten primary facilities serving the public, and their associated replacement costs. The use of existing standards means there are no existing infrastructure deficiencies. New development is only paying its proportionate share for growth-related infrastructure. The floor area has been provided by the City of Grand Junction staff.

As shown in Figure M2, the City has a total of 140,397 square feet of municipal facility floor area. The functional population split for the City of Grand Junction found in Figure M1 is used to allocate the square footage and corresponding replacement cost of Municipal Facilities infrastructure in Figure M2. Of the 140,397 square feet of applicable general government facilities, 63 percent is allocated to residential development (88,450 square feet) and 37 percent (51,947 square feet) is allocated to nonresidential development. The 2024 population or job totals divide the floor area allocations to find the residential and nonresidential level of service standard. For example, the residential level of service is 1.35 square feet per person (88,450 square feet 65,517 residents = 1.35 square feet per person).

According to discussions with City staff, the estimated replacement cost of municipal facility space is \$500 per square foot. To find the cost per person, the level of service standards is applied to the average replacement cost. For example, the residential cost per person is \$675.02 (1.35 square feet person x \$500 per square foot = \$675.02 per person).

Figure M2. Municipal Facilities Level of Service and Cost Factors

Facility	Square Feet
910 Main Street	5,465
Engineering Building	5,170
Daycare Facility	5,525
Wellness Facility	2,050
Transportation Engineering Office	3,600
Municipal Service Center	38,485
Municipal Operations Center	23,345
Field Engineering Building	3,234
Facilities Building	7,523
City Hall	46,000
Total	140,397

Level-of-Service (LOS) Standards

Population in 2024	65,517
Employment in 2024	62,988
Residential Share	63%
Nonresidential Share	37%
LOS: Square Feet per Person	1.35
LOS: Square Feet per Job	0.82

Cost Analysis

Cost per Square Foot	\$500
LOS: Square Feet per Person	1.35
Cost per Person	\$675.02
LOS: Square Feet per Job	0.82
Cost per Job	\$412.36

Source: City of Grand Junction

PROJECTION OF GROWTH-RELATED MUNICIPAL FACILITIES FACILITY NEEDS

To estimate the demand for future Municipal Facilities infrastructure, the current level of service (1.35 square feet per person and 0.82 square feet per job) is applied to the residential and nonresidential growth projected for the City of Grand Junction. As shown in Figure M3, the City is projected to increase by 17,256 residents and 16,590 jobs over the next ten years (see Appendix A). Figure M3 indicates that the City will need to construct 36,979 square feet of additional space to maintain current levels of service for Municipal Facilities. By applying the average cost of \$500 per square foot, the estimated growth-related cost for Municipal Facilities is approximately \$18.5 million over the next ten years.

Figure M3. 10-Year Municipal Facilities Infrastructure Needs to Accommodate Growth

Type of Infrastructure		Level of Service		Demand Unit	Unit Cost / Sq. Ft.
Municipal Facilities	Residential	1.35	Square Feet	per persons	\$500
	Nonresidential	0.82		per jobs	

Growth-Related Need for Municipal Facilities					
Year	Population	Jobs	Residential Square Feet	Nonresidential Square Feet	Total Square Feet
Base 2024	65,517	62,988	88,450	51,947	140,397
Year 1 2025	67,242	64,647	90,780	53,315	144,095
Year 2 2026	68,968	66,306	93,109	54,683	147,793
Year 3 2027	70,694	67,965	95,439	56,052	151,491
Year 4 2028	72,419	69,624	97,769	57,420	155,189
Year 5 2029	74,145	71,283	100,098	58,788	158,887
Year 6 2030	75,871	72,942	102,428	60,156	162,584
Year 7 2031	77,596	74,601	104,758	61,524	166,282
Year 8 2032	79,322	76,260	107,088	62,893	169,980
Year 9 2033	81,048	77,919	109,417	64,261	173,678
Year 10 2034	82,773	79,578	111,747	65,629	177,376
Ten-Year Increase	17,256	16,590	23,297	13,682	36,979
Projected Expenditure			\$11,648,387	\$6,841,116	\$18,489,503

Growth-Related Expenditure on Municipal Facilities	\$18,489,503
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MAXIMUM SUPPORTABLE MUNICIPAL FACILITIES IMPACT FEE

Figure M4 shows the maximum supportable Municipal Facilities Impact Fee. Impact fees for Municipal Facilities are based on persons per housing unit for residential development and employees per 1,000 square feet for nonresidential development. For residential development, the total cost per person is multiplied by the persons per housing unit to calculate the proposed fee. For nonresidential development, the total cost per job is multiplied by the jobs per 1,000 square feet to calculate the proposed fee. The fees represent the highest amount supportable for each type of development, which represents new growth’s fair share of the cost for capital facilities. The City may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure M4. Maximum Supportable Municipal Facilities Impact Fee

Fee Component	Cost per Person	Cost per Job
Municipal Facilities	\$675.02	\$412.36
Total	\$675.02	\$412.36

Residential Fees per Development Unit					
Unit Size	Development Unit	Persons per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
850 or less	Dwelling	0.75	\$506	\$0	\$506
851 to 1,000	Dwelling	0.97	\$655	\$0	\$655
1,001 to 1,250	Dwelling	1.23	\$830	\$0	\$830
1,251 to 1,500	Dwelling	1.52	\$1,026	\$0	\$1,026
1,501 to 2,000	Dwelling	1.91	\$1,289	\$0	\$1,289
2,001 to 2,500	Dwelling	2.32	\$1,566	\$0	\$1,566
2,501 to 3,000	Dwelling	2.64	\$1,782	\$0	\$1,782
3,001 to 3,500	Dwelling	2.91	\$1,964	\$0	\$1,964
3,501 to 4,000	Dwelling	3.14	\$2,120	\$0	\$2,120
4,001 to 4,500	Dwelling	3.34	\$2,255	\$0	\$2,255
4,501 or more	Dwelling	3.52	\$2,376	\$0	\$2,376

Nonresidential Fees per Development Unit					
Development Type	Development Unit	Jobs per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
Retail/Commercial	1,000 SF	2.12	\$876	\$0	\$876
Convenience Commercial	1,000 SF	9.35	\$3,854	\$0	\$3,854
Office	1,000 SF	3.26	\$1,342	\$0	\$1,342
Institutional/Public	1,000 SF	2.86	\$1,178	\$0	\$1,178
Industrial	1,000 SF	1.16	\$478	\$0	\$478
Warehousing	1,000 SF	0.34	\$140	\$0	\$140
Hotel/Lodging	Room	0.56	\$230	\$0	\$230
RV Park	Pad	0.05	\$21	\$0	\$21

1. See Land Use Assumptions

REVENUE FROM MUNICIPAL FACILITIES IMPACT FEE

Revenue from the Municipal Facilities Impact Fee is estimated in Figure M5. There is projected to be 8,180 new housing units and 6.6 million additional square feet of nonresidential space in Grand Junction by 2034. To determine the revenue from each development type, the fee is multiplied by the growth. Overall, the revenue from the impact fee covers 98 percent of the capital costs generated by projected growth in the City of Grand Junction.

Figure M5. Estimated Revenue from Municipal Facilities Impact Fee

Infrastructure Costs for Municipal Facilities

	Total Cost	Growth Cost
Municipal Facilities	\$18,489,503	\$18,489,503
Total Expenditures	\$18,489,503	\$18,489,503

Projected Development Impact Fee Revenue

		Single-Family	Multi-Family	Retail/Comm.	Office	Inst./Public	Industrial
		\$1,566	\$1,026	\$876	\$1,342	\$1,178	\$478
		per unit	per unit	per 1,000 Sq Ft	per 1,000 Sq Ft	per 1,000 Sq Ft	per 1,000 Sq Ft
Year		Housing Units		KSF	KSF	KSF	KSF
Base	2024	23,347	8,140	10,242	7,639	7,366	7,275
Year 1	2025	23,960	8,345	10,426	7,756	7,584	7,416
Year 2	2026	24,573	8,550	10,610	7,872	7,802	7,557
Year 3	2027	25,186	8,755	10,794	7,988	8,020	7,697
Year 4	2028	25,799	8,960	10,978	8,105	8,239	7,838
Year 5	2029	26,412	9,165	11,162	8,221	8,457	7,979
Year 6	2030	27,025	9,370	11,346	8,337	8,675	8,120
Year 7	2031	27,638	9,575	11,530	8,453	8,893	8,261
Year 8	2032	28,251	9,780	11,714	8,570	9,111	8,401
Year 9	2033	28,864	9,985	11,898	8,686	9,329	8,542
Year 10	2034	29,477	10,190	12,082	8,802	9,548	8,683
Ten-Year Increase		6,130	2,050	1,840	1,163	2,182	1,408
Projected Revenue =>		\$9,599,580	\$2,103,300	\$1,611,953	\$1,560,349	\$2,569,813	\$672,866
						Projected Revenue =>	\$18,117,861
						Total Expenditures =>	\$18,489,503
						General Fund's Share =>	\$371,642

PARKS & RECREATION IMPACT FEE

The Parks and Recreation Impact Fee is based on the incremental expansion methodology, and includes components for park land acquisition, open space land acquisition, and park improvements. By including a land park land component in the impact fee calculation, it is the City's intent to eliminate the current park land dedication requirement. The parks and recreation impact fee is derived from the product of persons per housing unit (by size of home) multiplied by the net cost per person.

SERVICE AREA

Since Grand Junction Parks provide services to the larger population residing outside the City in the 201 Sewer Service Boundary, parks and recreation infrastructure standards are allocated 100 percent to residential development within this area to establish the current level of service.

IMPACT FEE COMPONENTS

The Parks & Recreation Impact Fee is based on an inventory of existing City parks, current values of recreation improvements, and an inventory of current open space. The use of existing standards means there are no existing infrastructure deficiencies. New development is only paying its proportionate share for growth-related infrastructure.

Discussions with City staff indicate the City's park system essentially serves residents who reside within the 201 Sewer Service Boundary. For purposes of determining level of service standards, this population base will be referred to as the "park population," which is larger than the existing population base of the City.

Park Land

Figure PR1 lists the current inventory of City parks included in the impact fee calculations. To calculate the current level of service, the existing park acreage, (545.28 acres) is divided by the current park population (114,329). This results in a level of service standard of 0.0048 acres of park land per person.

To determine the cost per acre for park land, the City of Grand Junction provided data on the value of park land acquired through the City's current dedication requirement. According to the sample data provided, the City acquired 205 acres with a value of \$30,240,255. This equates to a value of \$147,513. When this average cost per acre (\$147,513) is applied to the existing level of service standard of 0.0048 acres of park land per person, the cost per person is \$703.55.

Figure PR1. Park Land Level of Service and Cost Factors

Park Name	Park Type	Acreage
Burkey Park South	Undeveloped Park	9.8
Canyon View Park	Regional Park	115.1
Columbine Park	Community Park	12.4
Darla Jean Park	Small Neighborhood Park	2.2
Dos Rios Park	Community Park	2.98
Duck Pond - Orchard Mesa	Small Neighborhood Park	4.8
Duck Pond - Ridges	Small Neighborhood Park	1.5
Eagle Rim Park	Large Neighborhood Park	11.4
Emerson Park	Community Park	2.5
Flint Ridge Park	Undeveloped Park	3.2
Founder's Colony Park	Small Neighborhood Park	4.4
Hawthorne Park	Small Neighborhood Park	2.7
Honeycomb Park	Small Neighborhood Park	3.6
Horizon Park	Undeveloped Park	12.6
Las Colonias Park	Regional Park	33.6
Lincoln Park	Regional Park	32.9
Matchett Park	Undeveloped Park	207
Paradise Hills Park	Small Neighborhood Park	2.8
Pineridge Park	Community Park	1.9
Riverside Park	Small Neighborhood Park	1.5
Rocket Park	Large Neighborhood Park	2.7
Saccomano Park	Banked Future Park	31.7
Shadow Lake Park	Large Neighborhood Park	5.8
Sherwood Park	Community Park	13.9
Spring Valley I Park	Small Neighborhood Park	3.1
Spring Valley II Park	Small Neighborhood Park	2.5
Washington Park	Small Neighborhood Park	3
Whitman Park	Small Neighborhood Park	2.5
Westlake Park	Large Neighborhood Park	11.2
Total		545.28

Level-of-Service (LOS) Standards

Park Population in 2024 (includes 201 Boundary)	114,329
Residential Share	100%
LOS: Acres per Person	0.0048

Cost Analysis

Cost per Acre	\$147,513
LOS: Acres per Person	0.0048
Cost per Person	\$703.55

Source: City of Grand Junction

Open Space

Figure PR2 lists the current inventory of City open space parcels. To calculate the current level of service, the existing open space acreage, (598.3 acres) is divided by the current park population (114,329). This results in a level of service standard of 0.0052 acres of open space land per person.

To determine the cost per acre for open space, the City of Grand Junction provided data on the value of park land acquired through the City’s current dedication requirement. According to the sample data provided, the City acquired 205 acres with a value of \$30,240,255. This equates to a value of \$147,513. When this average cost per acre (\$147,513) is applied to the existing level of service standard of 0.0052 acres of open space land per person, the cost per person is \$771.96.

Figure PR2. Open Space Level of Service and Cost Factors

Park Name	Acreage
Botanical Gardens Open Space	6.3
Las Colonias Park	32.4
Leach Creek Open Space	0.5
Ridges Open Space	173.9
South Rim Open Space	21.6
Three Sisters Bike Park	294.9
Kindred Reserve	37
Watson Island Open Space	31.7
Total	598.3

Level-of-Service (LOS) Standards

Park Population in 2024 (includes 201 Boundary)	114,329
Residential Share	100%
LOS: Acres per Person	0.0052

Cost Analysis

Cost per Acre	\$147,513
LOS: Acres per Person	0.0052
Cost per Person	\$771.96

Source: City of Grand Junction

Park Improvements

Figure PR3 lists the current inventory of City improvements included in the impact fee calculations. As shown in Figure PR3, the City currently has 694 different park improvements, with a replacement value of \$109.2 million. This equates to an average cost per improvement of \$157,464. To calculate the current level of service, the existing park improvements, (694) is divided by the current park population (114,329). This results in a level of service standard of 0.0061 park improvements per person.

As discussed above, the average cost per improvement is \$157,464. When the average cost per acre (\$157,464) is applied to the existing level of service standard of 0.0061 park improvements per person, the cost per person is \$955.83.

Figure PR3. Park Improvements Level of Service and Cost Factors

Description	Improvements	Unit Cost	Total Cost
Adventure Course	1	\$600,000	\$600,000
Aquatics, Indoor Lap Pool	1	\$6,000,000	\$6,000,000
Aquatics, Outdoor Lap Pool	1	\$15,000,000	\$15,000,000
Aquatics, Spray Pad	2	\$1,050,000	\$2,100,000
Basketball Court, Lit	1	\$210,000	\$210,000
Basketball Court, Unlit	9	\$160,000	\$1,440,000
Basketball, Practice	4	\$127,000	\$508,000
Batting Cage	2	\$32,000	\$64,000
Bike Course	2	\$200,000	\$400,000
Diamond Field, Lit	8	\$880,000	\$7,040,000
Diamond Field, Unlit	2	\$450,000	\$900,000
Diamond Field, Complex	1	\$1,000,000	\$1,000,000
Disc Golf	3	\$110,000	\$330,000
Dog Park	4	\$500,000	\$2,000,000
Event Space	5	\$5,500	\$27,500
Fitness Course	2	\$15,000	\$30,000
Game Court	2	\$26,500	\$53,000
Garden, Display	100	\$10,000	\$1,000,000
Horseshoe Pits	15	\$3,000	\$45,000
Inline Hockey	1	\$250,000	\$250,000
Natural Area	17	\$400,000	\$6,800,000
Open Turf	350	\$42,500	\$14,875,000
Pickleball Court, Lit	20	\$165,000	\$3,300,000
Pickleball Court, Unlit	4	\$115,000	\$460,000
Picnic Ground (Tables & Grills)	12	\$2,600	\$31,200
Playground (Destination)	5	\$550,000	\$2,750,000
Playground (Local)	19	\$300,000	\$5,700,000
Public Art Installations	10	\$100,000	\$1,000,000
Rectangular Field, Complex	1	\$900,000	\$900,000
Rectangular Field, Large	5	\$500,000	\$2,500,000
Rectangular Field, Multiple	1	\$300,000	\$300,000
Rectangular Field, Small	2	\$100,000	\$200,000
Shelter/Pavillion - Large	28	\$130,000	\$3,640,000
Shelter/Pavillion - Small	12	\$60,000	\$720,000
Skate Park - Destination	1	\$3,200,000	\$3,200,000
Skate Park - Local	2	\$750,000	\$1,500,000
Trail, Multi-Use, Concrete	13	\$1,062,000	\$13,806,000
Trailhead	1	\$150,000	\$150,000
Tennis Court, Lit	12	\$300,000	\$3,600,000
Tennis Court, Unlit	6	\$175,000	\$1,050,000
Volleyball Court	4	\$50,000	\$200,000
Water Access, Developed	1	\$1,000,000	\$1,000,000
Water Access, General	2	\$1,300,000	\$2,600,000
Total	694	\$157,464	\$109,279,700

Level-of-Service (LOS) Standards

Existing Improvements	694
Park Population in 2024 (includes 201 Boundary)	114,329
LOS: Park Improvements per Person	0.0061

Cost Analysis

Average Cost per Improvement*	\$157,464
LOS: Improvements per Person	0.0061
Cost per Person	\$955.83

*Source: City of Grand Junction

PROJECTION OF GROWTH-RELATED PARK INFRASTRUCTURE NEEDS

To estimate the 10-year growth needs for park land, the current level of service (0.0048 acres person) is applied to the projected park population growth. The 201 Sewer Service area is projected to increase by 20,526 residents over the next ten years (see Appendix A). As shown in Figure PR4, it is projected that the City will need to purchase 97.9 acres to accommodate the needs generated by new development. By applying the average cost per acre (\$147,513 per acre), the estimated growth-related expenditure is approximately \$14.4 million.

Figure PR4. 10-Year Park Land Infrastructure Needs to Accommodate Growth

Type	Level of Service	Demand Unit	Unit Cost
Park Land	0.0048 Acres	per person	\$147,513

Growth-Related Need for Park Land			
Year		Park Population	Acres
Base	2024	114,329	545.28
Year 1	2025	116,225	554.32
Year 2	2026	118,121	563.36
Year 3	2027	120,016	572.40
Year 4	2028	121,912	581.45
Year 5	2029	123,808	590.49
Year 6	2030	125,704	599.53
Year 7	2031	127,828	609.66
Year 8	2032	130,129	620.63
Year 9	2033	132,471	631.81
Year 10	2034	134,856	643.18
Ten-Year Increase		20,526	97.90

Growth-Related Expenditure for Park Land	\$14,441,277
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To estimate the 10-year growth needs for open space land acquisition, the current level of service (0.0052 acres person) is applied to the projected park population growth. The 201 Sewer Service area is projected to increase by 20,526 residents over the next ten years (see Appendix A). As shown in Figure PR5, it is projected that the City will need to purchase approximately 140 acres of open space land to accommodate the needs generated by new development. By applying the average cost per acre to acquire park land (\$147,513 per acre), the estimated growth-related expenditure is approximately \$15.8 million.

Figure PR5. 10-Year Open Space Infrastructure Needs to Accommodate Growth

Type	Level of Service	Demand Unit	Unit Cost
Open Space	0.0052 Acres	per person	\$147,513

Growth-Related Need for Open Space			
Year		Park Population	Acres
Base	2024	114,329	598.30
Year 1	2025	116,225	608.22
Year 2	2026	118,121	618.14
Year 3	2027	120,016	628.06
Year 4	2028	121,912	637.98
Year 5	2029	123,808	647.90
Year 6	2030	125,704	657.82
Year 7	2031	127,828	668.94
Year 8	2032	130,129	680.98
Year 9	2033	132,471	693.24
Year 10	2034	134,856	705.72
Ten-Year Increase		20,526	107.42

Growth-Related Expenditure for Open Space	\$15,845,467
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To estimate the 10-year growth needs for park improvements, the current level of service (0.0068 acres person) is applied to the projected park population growth. The 201 Sewer Service area is projected to increase by 20,526 residents over the next ten years (see Appendix A). As shown in Figure PR6, it is projected that the City will need to construct approximately 125 improvements on existing or future parks to accommodate the needs generated by new development. By applying the average cost per improvement (\$157,464 per improvement), the estimated growth-related expenditure is approximately \$19.6 million.

Figure PR6. 10-Year Park Improvement Infrastructure Needs to Accommodate Growth

Type	Level of Service	Demand Unit	Unit Cost
Park Improvements	0.0061 Improvements	per person	\$157,464

Growth-Related Need for Park Improvements			
Year		Park Population	Improvements
Base	2024	114,329	694.00
Year 1	2025	116,225	705.51
Year 2	2026	118,121	717.01
Year 3	2027	120,016	728.52
Year 4	2028	121,912	740.03
Year 5	2029	123,808	751.54
Year 6	2030	125,704	763.04
Year 7	2031	127,828	775.94
Year 8	2032	130,129	789.91
Year 9	2033	132,471	804.12
Year 10	2034	134,856	818.60
Ten-Year Increase		20,526	124.60

Growth-Related Expenditure for Park Improvements	\$19,619,829
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MAXIMUM SUPPORTABLE PARKS & RECREATION IMPACT FEE

Figure PR7 shows the cost factors for each component of the City of Grand Junction’s Parks and Recreation Impact Fee. Impact fees for parks and recreation are based on persons per housing unit and are only assessed against residential development. The fees for park improvements are calculated per person, so by multiplying the total cost per person by the housing unit size calculates the maximum supportable fee.

The fees represent the highest amount supportable for each type of housing unit, which represents new growth’s fair share of the cost for capital facilities. The City may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure PR7. Maximum Supportable Park & Recreation Impact Fee

Fee Component	Cost per Person
Park Land	\$703.55
Open Space	\$771.96
Park Improvements	\$955.83
Total	\$2,431.33

Residential Fees per Development Unit					
Unit Size	Development Unit	Persons per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
850 or less	Dwelling	0.75	\$1,824	\$962	\$862
851 to 1,000	Dwelling	0.97	\$2,358	\$962	\$1,396
1,001 to 1,250	Dwelling	1.23	\$2,991	\$962	\$2,029
1,251 to 1,500	Dwelling	1.52	\$3,696	\$1,429	\$2,267
1,501 to 2,000	Dwelling	1.91	\$4,644	\$1,429	\$3,215
2,001 to 2,500	Dwelling	2.32	\$5,641	\$1,429	\$4,212
2,501 to 3,000	Dwelling	2.64	\$6,419	\$1,429	\$4,990
3,001 to 3,500	Dwelling	2.91	\$7,075	\$1,429	\$5,646
3,501 to 4,000	Dwelling	3.14	\$7,634	\$1,429	\$6,205
4,001 to 4,500	Dwelling	3.34	\$8,121	\$1,429	\$6,692
4,501 or more	Dwelling	3.52	\$8,558	\$1,429	\$7,129
RV Park	Pad	4.31	\$10,479	\$0	\$10,479

1. See Land Use Assumptions

REVENUE FROM PARKS & RECREATION IMPACT FEE

Revenue from the City’s Parks & Recreation Impact Fee is estimated in Figure PR8. Demand for park improvements is driven by both City residents and current/future residents within the 201 Sewer Service Boundary. Therefore, it is difficult to estimate impact fee revenue for parks and recreation because it is not known when (and if) the projected housing units in the 201 Sewer Service Boundary will be annexed into the City of Grand Junction prior to their construction (which is the time the impact fee is paid). Therefore, the impact fee revenue projection is based on projected units in the City of Grand Junction over the next ten years. By multiplying the projected residential growth in the City by the impact fee amounts, we estimate projected impact fee revenue of approximately \$46.9 million. Projected expenditures total \$49.9 million.

Figure PR8. Estimated Revenue from Parks & Recreation Impact Fee

Infrastructure Costs for Parks

	Growth Cost
Park Land	\$14,441,277
Open Space	\$15,845,467
Park Improvements	\$19,619,829
Total Expenditures	\$49,906,573

Projected Development Impact Fee Revenue

		Single-Family \$6,419 per unit	Multi-Family \$3,696 per unit
Year		Housing Units	Housing Units
Base	2024	23,347	8,140
Year 1	2025	23,960	8,345
Year 2	2026	24,573	8,550
Year 3	2027	25,186	8,755
Year 4	2028	25,799	8,960
Year 5	2029	26,412	9,165
Year 6	2030	27,025	9,370
Year 7	2031	27,638	9,575
Year 8	2032	28,251	9,780
Year 9	2033	28,864	9,985
Year 10	2034	29,477	10,190
Ten-Year Increase		6,130	2,050
Projected Revenue =>		\$39,346,778	\$7,576,039
		Projected Revenue =>	\$46,922,817
		Total Expenditures =>	\$49,906,573
		General Fund's Share =>	\$2,983,756

POLICE IMPACT FEE

The Police impact fees include components for future station space. The incremental expansion methodology is used for the Police impact fee. The Police Impact Fee is calculated on a per capita basis for residential development and a per vehicle trip basis for nonresidential development.

The residential police impact fees are calculated per housing unit. TischlerBise recommends using nonresidential vehicle trips as the best demand indicator for police facilities. Trip generation rates are used for nonresidential development because vehicle trips are highest for commercial/retail developments, such as shopping centers, and lowest for industrial development. Office and institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for police services and facilities from nonresidential development. Other possible nonresidential demand indicators, such as employment or floor area, will not accurately reflect the demand for service. For example, if employees per thousand square feet were used as the demand indicator, police impact fees would be too high for office and institutional development because offices typically have more employees per 1,000 square feet than retail uses.

SERVICE AREA

The City of Grand Junction provides Police services on a uniform basis throughout the City; therefore, there is a single service area for the Police impact fees.

PROPORTIONATE SHARE FACTORS

Both residential and nonresidential developments increase the demand on police facilities. To calculate the proportional share between residential and nonresidential demand on police facilities, a functional population approach is used. The functional population approach allocates the cost of the facilities to residential and nonresidential development based on the activity of residents and workers in the City through the 24 hours in a day.

Residents that do not work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in Grand Junction are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside Grand Junction are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2021 functional population data (the latest available) for Grand Junction, the cost allocation for residential development is 63 percent while nonresidential development accounts for 37 percent of the demand for police facilities, see Figure P1.

Figure P1. City of Grand Junction Functional Population

Demand Units in 2021				
Residential				
Population	62,544		Demand Hours/Day	Person Hours
Residents Not Working	37,046		20	740,920
Employed Residents	25,498			
Employed in Grand Junction	17,052	14		238,728
Employed outside Grand Junction	8,446	14		118,244
Residential Subtotal				1,097,892
Residential Share				63%
Nonresidential				
Non-working Residents	37,046		4	148,184
Jobs Located in Grand Junction	49,018			
Residents Employed in Grand Junction	17,052	10		170,520
Nonresident Workers (Inflow Commuters)	31,966	10		319,660
Nonresidential Subtotal				638,364
Nonresidential Share				37%
Total				1,736,256

Source: U.S. Census Bureau (population), U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, Version 6.24.1 (employment).

IMPACT FEE COMPONENTS

Police Facilities

The Police impact fee is based on an inventory of existing citywide facilities and replacement costs. The use of existing standards means there are no existing infrastructure deficiencies. The floor area has been provided by the City of Grand Junction staff.

As shown in Figure P2, the City of Grand Junction Police Department is housed in the Public Safety Building. This facility occupies 63,863 square feet. To determine the residential level of service, the current Police space square footage (63,863) is multiplied by the residential proportionate share factor (63%) and divided by the current population (65,517) for a level of service standard of 0.614 square feet per person. The nonresidential level of service standard of 0.108 square feet per nonresidential vehicle trip was determined by multiplying the current facility square footage (63,863) by the nonresidential proportionate share factor (37%) and divided by the current average daily nonresidential vehicle trips (218,420).

As shown in Figure P2, the estimated replacement cost is \$625 per square foot. This cost is based on the estimated cost for construction of a future Police Annex prepared by the Blythe Group. When the residential (0.614 per person) and nonresidential (0.108 per vehicle trip) per square foot level of service standards are multiplied by the cost per square foot (\$625), the resulting cost per demand units are \$383.81 per person and \$67.61 per nonresidential vehicle trip.

Figure P2. Police Station Level of Service and Cost Factors

Facility	Square Feet
Police Station Building	63,863
Total	63,863

Level-of-Service (LOS) Standards

Population in 2024	65,517
Nonresidential Vehicle Trips in 2024	218,420
Residential Share	63%
Nonresidential Share	37%
LOS: Square Feet per Person	0.614
LOS: Square Feet per Vehicle Trip	0.108

Cost Analysis

Cost per Square Foot*	\$625
LOS: Square Feet per Person	0.614
Cost per Person	\$383.81
LOS: Square Feet per Vehicle Trip	0.108
Cost per Vehicle Trip	\$67.61

Source: City of Grand Junction

PROJECTION OF GROWTH-RELATED POLICE FACILITY NEEDS

To estimate the demand for future Police station space, the current level of service (0.614 square feet per person and 0.108 square feet per nonresidential vehicle trip) is applied to the residential and nonresidential growth projected for the City of Grand Junction. As shown in Figure P3, the City is projected to increase by 17,256 residents and 42,895 nonresidential vehicle trips over the next ten years (see Appendix A). As shown in Figure P3, there is projected demand for 15,238 square feet of growth-related Police space to accommodate new development in the City at the present level of service. By applying the average cost per square foot (\$625), the total projected growth-related building space expenditure is approximately \$9.5 million.

Figure P3. 10-Year Police Space Needs to Accommodate Growth

Type of Infrastructure	Level of Service		Demand Unit	Unit Cost
Police Facilities	Residential	0.614	Square Feet	\$625
	Nonresidential	0.108		

Growth-Related Need for Police Facilities						
Year	Population	Nonresidential Vehicle Trips	Residential Square Feet	Nonresidential Square Feet	Total	
Base 2024	65,517	218,420	40,234	23,629	63,863	
Year 1 2025	67,242	222,710	41,293	24,093	65,387	
Year 2 2026	68,968	226,999	42,353	24,557	66,911	
Year 3 2027	70,694	231,289	43,413	25,021	68,434	
Year 4 2028	72,419	235,579	44,473	25,486	69,958	
Year 5 2029	74,145	239,868	45,532	25,950	71,482	
Year 6 2030	75,871	244,158	46,592	26,414	73,006	
Year 7 2031	77,596	248,447	47,652	26,878	74,529	
Year 8 2032	79,322	252,737	48,711	27,342	76,053	
Year 9 2033	81,048	257,026	49,771	27,806	77,577	
Year 10 2034	82,773	261,316	50,831	28,270	79,101	
Ten-Year Increase	17,256	42,895	10,597	4,641	15,238	
Projected Expenditure			\$6,623,191	\$2,900,325	\$9,523,517	
Growth-Related Expenditure on Police Facilities					\$9,523,517	

PRINCIPAL PAYMENT CREDIT

The City of Grand Junction has existing debt obligations for the construction of the present Public Safety Building at a cost of \$27.8 million. This total represents 80 percent of the 2010 Bonds. Figure P5 lists the remaining principal payment schedule for the bonds, which totals \$19.2 million.

The total remaining annual principal payment schedule is distributed to the equivalent residential and nonresidential share, City’s population and vehicle trip ends, to find the debt cost per attributed user. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (5.0%) rate. This results in a credit of \$97.53 per person, and \$17.89 per nonresidential trip end.

Figure P4. Principal Payment Credit

Year	Principal Payment (80% of Bond)	Res. Share 63%	Population	Debt Cost per Capita	Nonres. Share 37%	Nonres. Vehicle Trips	Debt Cost per Trip
2024	\$788,000	\$496,440	65,517	\$7.58	\$291,560	218,420	\$1.33
2025	\$792,000	\$498,960	67,242	\$7.42	\$293,040	222,710	\$1.32
2026	\$832,000	\$524,160	68,968	\$7.60	\$307,840	226,999	\$1.36
2027	\$872,000	\$549,360	70,694	\$7.77	\$322,640	231,289	\$1.39
2028	\$916,000	\$577,080	72,419	\$7.97	\$338,920	235,579	\$1.44
2029	\$960,000	\$604,800	74,145	\$8.16	\$355,200	239,868	\$1.48
2030	\$1,008,000	\$635,040	75,871	\$8.37	\$372,960	244,158	\$1.53
2031	\$1,060,000	\$667,800	77,596	\$8.61	\$392,200	248,447	\$1.58
2032	\$1,112,000	\$700,560	79,322	\$8.83	\$411,440	252,737	\$1.63
2033	\$1,168,000	\$735,840	81,048	\$9.08	\$432,160	257,026	\$1.68
2034	\$1,224,000	\$771,120	82,773	\$9.32	\$452,880	261,316	\$1.73
2035	\$1,288,000	\$811,440	84,499	\$9.60	\$476,560	265,605	\$1.79
2036	\$1,340,000	\$844,200	86,224	\$9.79	\$495,800	269,895	\$1.84
2037	\$1,392,000	\$876,960	87,950	\$9.97	\$515,040	274,184	\$1.88
2038	\$1,448,000	\$912,240	89,676	\$10.17	\$535,760	278,474	\$1.92
2039	\$1,504,000	\$947,520	91,401	\$10.37	\$556,480	282,763	\$1.97
2040	\$1,552,000	\$977,760	93,127	\$10.50	\$574,240	287,053	\$2.00
Total	\$19,256,000	\$12,131,280		\$151.11	\$7,124,720		\$27.87

Discount Rate	5.0%		5.0%
Net Present Value	\$97.53		\$17.89

MAXIMUM SUPPORTABLE POLICE IMPACT FEE

Figure P5 shows the maximum supportable Police Impact Fee. Impact fees for Police are based on persons per housing unit for residential development and vehicle trips per 1,000 square feet for nonresidential development. For residential development, the total cost per person is multiplied by the housing unit size to calculate the proposed fee. For nonresidential development, the total cost per vehicle trip is multiplied by the trips per 1,000 square feet to calculate the proposed fee.

The fees represent the highest amount supportable for each type of development, which represents new growth’s fair share of the cost for capital facilities. The City may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure P5. Maximum Supportable Police Impact Fee

Fee Component	Cost per Person	Cost per Trip
Police Facilities	\$383.81	\$67.61
Principal Payment Credit	(\$97.53)	(\$17.89)
Total	\$286.28	\$49.73

Residential Fees per Development Unit					
Unit Size	Development Unit	Persons per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
850 or less	Dwelling	0.75	\$215	\$227	(\$12)
851 to 1,000	Dwelling	0.97	\$278	\$227	\$51
1,001 to 1,250	Dwelling	1.23	\$352	\$227	\$125
1,251 to 1,500	Dwelling	1.52	\$435	\$346	\$89
1,501 to 2,000	Dwelling	1.91	\$547	\$346	\$201
2,001 to 2,500	Dwelling	2.32	\$664	\$346	\$318
2,501 to 3,000	Dwelling	2.64	\$756	\$346	\$410
3,001 to 3,500	Dwelling	2.91	\$833	\$346	\$487
3,501 to 4,000	Dwelling	3.14	\$899	\$346	\$553
4,001 to 4,500	Dwelling	3.34	\$956	\$346	\$610
4,501 or more	Dwelling	3.52	\$1,008	\$346	\$662

Nonresidential Fees per Development Unit					
Development Type	Development Unit	Vehicle Trips per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
Retail/Commercial	1,000 SF	12.21	\$607	\$234	\$373
Convenience Commercial	1,000 SF	16.81	\$836	\$234	\$602
Office	1,000 SF	5.42	\$270	\$92	\$178
Institutional/Public	1,000 SF	5.39	\$268	\$92	\$176
Industrial	1,000 SF	1.69	\$84	\$32	\$52
Warehousing	1,000 SF	0.86	\$43	\$16	\$27
Hotel/Lodging	Room	4.00	\$199	\$234	(\$35)
RV Park	Pad	1.35	\$67	\$227	(\$160)

1. See Land Use Assumptions

REVENUE FROM POLICE IMPACT FEE

Revenue from the Police Impact Fee is estimated in Figure P6. There is projected to be 8,180 new housing units and approximately 6.6 million square feet of additional nonresidential development in Grand Junction by 2034. To find the revenue from each development type, the fee is multiplied by the growth for each land use. Overall, the projected revenue from the Police impact fee totals approximately \$7.1 million and covers approximately 75% of the total expected expenditures. Impact fee revenue is less than the projected expenditures due to the required debt credit.

Figure P6. Estimated Revenue from Police Impact Fee

Infrastructure Costs for Police Facilities

	Growth Cost
Police Facilities	\$9,523,517
Total Expenditures	\$9,523,517

Projected Development Impact Fee Revenue

		Single-Family \$664 per unit	Multi-Family \$435 per unit	Retail/Comm. \$607 per 1000 Sq Ft	Office \$270 per 1000 Sq Ft	Inst./Public \$268 per 1000 Sq Ft	Industrial \$84 per 1000 Sq Ft	
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF	
Base	2024	23,347	8,140	10,242	7,639	7,366	7,275	
Year 1	2025	23,960	8,345	10,426	7,756	7,584	7,416	
Year 2	2026	24,573	8,550	10,610	7,872	7,802	7,557	
Year 3	2027	25,186	8,755	10,794	7,988	8,020	7,697	
Year 4	2028	25,799	8,960	10,978	8,105	8,239	7,838	
Year 5	2029	26,412	9,165	11,162	8,221	8,457	7,979	
Year 6	2030	27,025	9,370	11,346	8,337	8,675	8,120	
Year 7	2031	27,638	9,575	11,530	8,453	8,893	8,261	
Year 8	2032	28,251	9,780	11,714	8,570	9,111	8,401	
Year 9	2033	28,864	9,985	11,898	8,686	9,329	8,542	
Year 10	2034	29,477	10,190	12,082	8,802	9,548	8,683	
Ten-Year Increase		6,130	2,050	1,840	1,163	2,182	1,408	
Projected Revenue =>		\$4,070,320	\$891,750	\$1,116,958	\$313,930	\$584,643	\$118,244	
							Projected Revenue =>	\$7,095,845
							Total Expenditures =>	\$9,523,517
							General Fund's Share =>	\$2,427,672

TRANSPORTATION IMPACT FEE

The transportation impact fees include components for principal arterials, minor arterials, major collectors, minor collectors, and trails. The incremental expansion methodology is used for the transportation impact fee. The transportation impact fee is calculated on a per person mile traveled (PMT) basis for all development. Costs are allocated to both residential and nonresidential development using trip generation rates, trip adjustment factors, and trip length adjustment factors. Residential trip generation rates are customized to Grand Junction's residential development, as discussed in the following sections. Nonresidential trip generation rates are highest for retail/commercial development and lowest for industrial development, whereas trip rates for office and institutional development fall between the other two categories.

SERVICE AREA

The City of Grand Junction provides a citywide transportation network; therefore, there is a single service area for the transportation impact fees.

PROPORTIONATE SHARE FACTORS

Transportation impact fees should be proportionate to the cost of transportation infrastructure needed to accommodate new development. The transportation impact fees allocate the cost of transportation infrastructure between residential and nonresidential based on trip generation rates, trip adjustment factors, and trip lengths.

VEHICLE TRIPS

Average weekday vehicle trips are used as a measure of demand by land use. Vehicle trips are estimated using average weekday vehicle trip ends from the reference book, *Trip Generation, 11th Edition*, published by the Institute of Transportation Engineers (ITE) in 2021. A vehicle trip end represents a vehicle entering or exiting a development (as if a traffic counter were placed across a driveway). To calculate the impact fees, trip generation rates are adjusted to avoid double counting each trip at both the origin and destination points. The basic trip adjustment factor is 50 percent. As discussed further below, the impact fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Residential Trip Generation Rates

As an alternative to simply using national average trip generation rates for residential development, published by the Institute of Transportation Engineers (ITE), TischlerBise calculates custom trip rates using local demographic data. Key inputs needed for the analysis, including average number of persons and vehicles available per housing unit, are available from American Community Survey (ACS) data.

Vehicle Trip Ends by Bedroom Range

TischlerBise recommends a fee schedule where larger units pay higher impact fees than smaller units. Benefits of the proposed methodology include: 1) proportionate assessment of infrastructure demand using local demographic data, and 2) a progressive fee structure (i.e., smaller units pay less, and larger units pay more).

TischlerBise creates custom tabulations of demographic data by bedroom range from individual survey responses provided by the U.S. Census Bureau in files known as Public Use Microdata Samples (PUMS). PUMS files are only available for areas of at least 100,000 persons, and Grand Junction is in Public Use Microdata Area (PUMA) 2501. Shown in Figure T1, cells with yellow shading indicate the unweighted survey results, which yield the unadjusted number of persons and vehicles available per housing unit. Unadjusted persons per housing unit and vehicles per housing unit are adjusted to control totals in Grand Junction – 2.11 persons per housing unit and 1.68 vehicles per unit. The analysis multiplies adjusted persons per housing unit estimates by the ITE weighted average trip rate per person to estimate trip ends per housing unit based on persons. The analysis multiplies adjusted vehicles per housing unit estimates by the ITE weighted average trip rate per vehicle to estimate trip ends per housing unit based on vehicles. Finally, the analysis calculates average trip ends per housing unit using the average number of trip ends per person and per vehicle. Housing units with 0-1 bedrooms generate 3.61 vehicle trips ends per day and housing units with 5+ bedrooms generate 11.36 vehicle trip ends per day.

Figure T1: Vehicle Trip Ends by Bedroom Range

Bedroom Range	Persons ¹	Housing Units ¹	Vehicles Available ¹	Housing Mix	Unadjusted PPHU	Adjusted PPHU ²	Unadjusted VPHU	Adjusted VPHU ²
0-1	233	193	159	8%	1.21	1.18	0.82	0.73
2	814	496	743	21%	1.64	1.61	1.50	1.33
3	2,647	1,202	2,401	50%	2.20	2.16	2.00	1.78
4	1,089	396	938	17%	2.75	2.70	2.37	2.11
5+	340	96	259	4%	3.54	3.48	2.70	2.40
Total	5,123	2,383	4,500	100%	2.15	2.11	1.89	1.68

National Averages According to ITE

ITE Code	AWVTE per Person	AWVTE per Vehicle	AWVTE per HU	Local Housing Mix
210 SFD	2.65	6.36	9.43	75%
221 Apt	2.28	3.97	4.54	25%
Weighted Avg	2.56	5.75	8.19	100%

Recommended AWVTE per Housing Unit

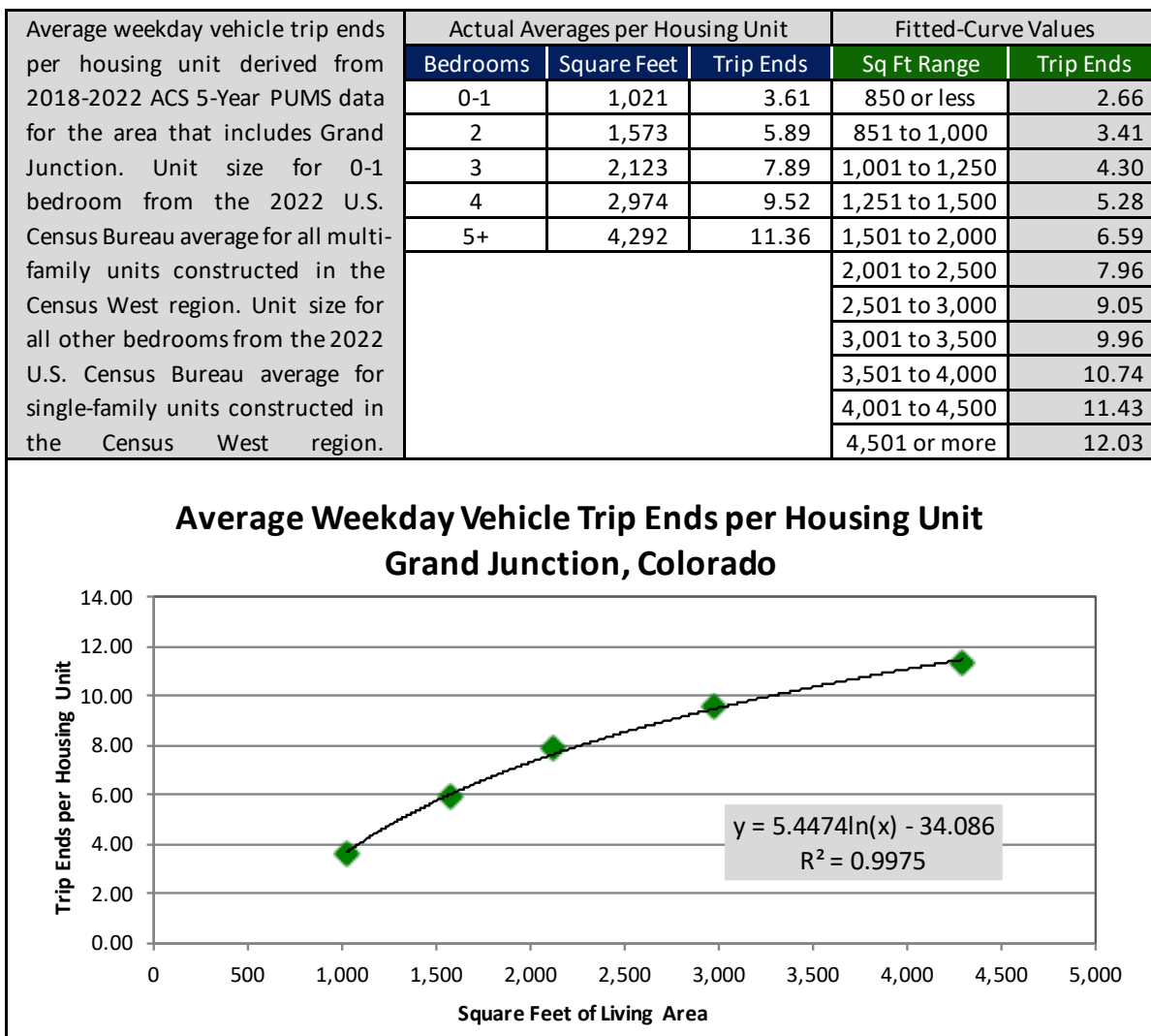
Bedroom Range	AWVTE per HU Based on Persons ³	AWVTE per HU Based on Vehicles ⁴	AWVTE per Housing Unit ⁵	
0-1	3.02	4.20	3.61	1. U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Public Use Microdata Sample (PUMS) for Colorado PUMA 2501. 2. Represents unadjusted PUMS values scaled to control totals for Grand Junction using 2018-2022 ACS 5-Year Estimates. 3. Adjusted persons per housing unit multiplied by ITE weighted average trip rate per person. 4. Adjusted vehicles available per housing unit multiplied by ITE weighted average trip rate per vehicle. 5. Average trip rates based on persons and vehicles per housing unit.
2	4.12	7.65	5.89	
3	5.53	10.24	7.89	
4	6.91	12.13	9.52	
5+	8.91	13.80	11.36	
Average	5.40	9.66	7.53	

Vehicle Trip Ends by Housing Size

To derive average weekday vehicle trip ends by dwelling size, Tischler Bise uses 2022 U.S. Census Bureau data for housing units constructed in the west region. Based on 2022 estimates, living areas range from 1,021 square feet for 0- to 1-bedroom housing units up to 4,292 square feet for 5+ bedroom housing units. Citywide average floor area and weekday vehicle trip ends, by bedroom range, are plotted in Figure T2 with a logarithmic trend line formula to derive trip ends by housing unit size. TischlerBise recommends a minimum size based on 850 square feet or less and a maximum size of 4,501 square feet or larger.

A medium-size unit with 2,501 to 3,000 square feet has a fitted-curve value of 9.05 vehicle trip ends on an average weekday – this is less than the national average of 9.43 vehicle trip ends per single-family unit. A small unit of 850 square feet or less generates 2.66 vehicle trip ends, and this represents 29 percent of demand from a medium-size unit. A large unit of 4,501 square feet or more generates 12.03 vehicle trip ends, and this represents 133 percent of demand from a medium-size unit. With a “one-size-fits-all” approach, small units pay more than their proportionate share while large units pay less than their proportionate share.

Figure T2: Vehicle Trip Ends by Housing Size



Nonresidential Trip Generation Rates

For nonresidential development, TischlerBise uses trip generation rates published in Trip Generation, Institute of Transportation Engineers, 11th Edition (2021). The prototype for industrial development is Industrial Park (ITE 130) which generates 3.37 average weekday vehicle trip ends per 1,000 square feet of floor area. Institutional/public development uses Hospital (ITE 610) and generates 10.77 average weekday vehicle trip ends per 1,000 square feet of floor area. For office & other services development, the proxy is General Office (ITE 710), and it generates 10.84 average weekday vehicle trip ends per 1,000 square feet of floor area. The prototype for commercial development is Shopping Center (ITE 820) which generates 37.01 average weekday vehicle trips per 1,000 square feet of floor area.

Figure T3: Average Weekday Vehicle Trip Ends by Land Use

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit*	Wkdy Trip Ends Per Employee*	Emp Per Dmd Unit	Sq. Ft. Per Emp
110	Light Industrial	1,000 Sq Ft	4.87	3.10	1.57	637
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
310	Hotel	Room	7.99	14.34	0.56	n/a
416	Campground/RV Park**	Campsite	2.70	n/a	0.05	n/a
620	Nursing Home	Bed	3.06	3.31	0.92	n/a
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
710	General Office (avg size)	1,000 Sq Ft	10.84	3.33	3.26	307
720	Medical-Dental Office	1,000 Sq Ft	36.00	8.71	4.13	242
730	Government Office	1,000 Sq Ft	22.59	7.45	3.03	330
840	Auto Sales/Service	1,000 Sq Ft	27.84	11.20	2.49	402
430	Golf Course	Hole	30.38	3.74	1.47	680
444	Movie Theater	1,000 Sq Ft	78.09	53.12	1.47	680
820	Shopping Center (avg size)	1,000 Sq Ft	37.01	17.42	2.12	471
912	Bank	1,000 Sq Ft	100.35	32.73	3.07	326
934	Fast Food	1,000 Sq Ft	50.94	5.45	9.35	107
945	Convenience Store w/Gas Sales	1,000 Sq Ft	624.20	241.21	2.59	386

*Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

**Employees per Demand Unit from National Association of RV Parks & Campgrounds (ARVC), "2023 Outdoor Hospitality Industry Benchmarking Report."

Trip Rate Adjustments

Trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50 percent. As discussed further in this section, the impact fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Commuter Trip Adjustment

Residential development has a larger trip adjustment factor of 55 percent to account for commuters leaving Grand Junction for work. According to the 2009 National Household Travel Survey (see Table 30) weekday work trips are typically 31 percent of production trips (i.e., all out-bound trips, which are 50 percent of all trip ends). As shown in Figure T4, the U.S. Census Bureau’s OnTheMap web application indicates 33 percent of resident workers traveled outside of Grand Junction for work in 2021. In combination, these factors ($0.31 \times 0.50 \times 0.33 = 0.05$) support the additional five percent allocation of trips to residential development.

Figure T4: Commuter Trip Adjustment

Trip Adjustment Factor for Commuters	
Employed Residents	25,498
Residents Living and Working in Grand Junction	17,052
Residents Commuting Outside Grand Junction for Work	8,446
Percent Commuting out of Grand Junction	33%
Additional Production Trips ¹	5%
Standard Trip Rate Adjustment	50%
Residential Trip Adjustment Factor	55%

Source: U.S. Census Bureau, OnTheMap Application (v 6.24.1) and LEHD Origin-Destination Employment Statistics, 2021.

1. According to the National Household Travel Survey (2009)*, published in December 2011 (see Table 30), home-based work trips are typically 30.99 percent of “production” trips, in other words, out-bound trips (which are 50 percent of all trip ends). Also, LED OnTheMap data from 2021 indicate that 33 percent of Grand Junction’s workers travel outside the city for work. In combination, these factors ($0.3099 \times 0.50 \times 0.33 = 0.05$) account for 5 percent of additional production trips. The total adjustment factor for residential includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (5 percent of production trips) for a total of 55 percent. *<http://nhts.ornl.gov/publications.shtml> ; Summary of Travel Trends - Table "Daily Travel Statistics by Weekday vs. Weekend"

Adjustment for Pass-By Trips

For commercial development, the trip adjustment factor is less than 50 percent because this type of development attracts vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For the average shopping center, ITE data indicate 34 percent of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66 percent of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66 percent multiplied by 50 percent, or approximately 33 percent of the trip ends.

Average Weekday Vehicle Trips

Shown below in Figure T5, multiplying average weekday vehicle trip ends and trip adjustment factors (discussed on the previous page) by Grand Junction’s existing development units provides the average weekday vehicle trips generated by existing development. As shown below, existing development generates 359,836 vehicle trips on an average weekday.

Figure T5: Average Weekday Vehicle Trips by Land Use

Development Type	Dev Unit	ITE Code	Avg Wkday VTE	Trip Adjustment	2024 Dev Units	2024 Trips
Single Family	HU	210	9.43	55%	23,347	121,090
Multi-Family	HU	221	4.54	55%	8,140	20,326
Retail/Commercial	KSF	820	37.01	33%	10,242	125,090
Office	KSF	710	10.84	50%	7,639	41,406
Institutional/Public	KSF	610	10.77	50%	7,366	39,666
Industrial	KSF	130	3.37	50%	7,275	12,259
Total						359,836

PERSON TRIPS

Grand Junction is a unique community with residents and workers using varying modes of travel. In general, an impact fee study calculates future development’s impact on infrastructure. In suburban, greenfield communities that concentrate on roadway expansion to accommodate additional vehicles, a development’s impact is best estimated by calculating the additional vehicle trips or vehicle miles traveled (VMT) generated by the development. However, based on the urban environment and residents’ travel behaviors, a multimodal approach is necessary for the City of Grand Junction. This is also consistent with the capital improvements identified in Grand Junction’s Capital Improvement Plan and Grand Junction’s desire to serve all modes of travel. As such, the multimodal approach calculates person trips generated by the varying development types in the study.

Person Trip Methodology

According to the Institute of Transportation Engineers (ITE), there are several elements necessary to calculate person trips. The following equation is provided in the ITE’s Trip Generation Handbook (2021):

$$\text{Person trips} = [(\text{vehicle occupancy}) \times (\text{vehicle trips})] + \text{transit trips} + \text{walk trips} + \text{bike trips}$$

To create a more streamlined approach, this study uses “walk / bike / scooter” as the sum of walk and bike trips. The Trip Generation Handbook outlines the general approach to calculating person trips:

1. **Estimate vehicle trip ends generated by development type.** This study uses the vehicle trip rates found in Figure T2 for residential development and Figure T3 for nonresidential development.
2. **Determine mode share and vehicle occupancy.** This study uses mode share and vehicle occupancy data for Mesa County provided by Grand Valley Metropolitan Planning Organization (GVMPO) as part of the 2024 Colorado Department of Transportation (CDOT) travel survey.
3. **Convert vehicle trips to person trips.** This conversion calculates the total person trips by combining the vehicle trip mode share and vehicle occupancy.

Mode Share and Vehicle Occupancy

Vehicle trip estimates, by mode, from the CDOT travel survey provide mode share and vehicle occupancy data used in this analysis. According to preliminary results for Mesa County, the vehicle mode share is 86.3 percent for residential trips, 94.7 percent for nonresidential commercial/retail trips, and 89.2 percent for other nonresidential trips. Additionally, the vehicle trips had an average vehicle occupancy of 1.21 passengers per residential trip, 1.25 passengers per nonresidential commercial/retail trip, and 1.20 passengers per other nonresidential trip.

Figure T6: Mode Share

Mode	Residential		Commercial/Retail		Other Nonresidential	
	Trips	Share	Trips	Share	Trips	Share
Vehicle	1,220	86.3%	412	94.7%	181	89.2%
Transit	12	0.9%	0	0.0%	10	4.9%
Walk/Bike/Scooter	181	12.8%	23	5.3%	12	5.9%
Total	1,413	100.0%	435	100.0%	203	100.0%

Figure T7: Vehicle Occupancy

	Residential	Commercial/Retail	Other Nonresidential
Vehicle Occupants	1,474	515	217
Vehicle Trips	1,220	412	181
Vehicle Occupancy	1.21	1.25	1.20

Source: CDOT Travel Survey, Mesa County, 2024 (Preliminary Data)

Calculation of Person Trip Ends

The total person trip end rate for each land use can be calculated using the vehicle trip end rate, vehicle occupancy rate, and vehicle mode share. The following formula to calculate vehicle trip ends is provided in the ITE’s Trip Generation Handbook (2021):

$$\text{Vehicle trip ends} = [(\text{person trip ends}) \times (\text{vehicle mode share})] / (\text{vehicle occupancy})$$

To calculate average weekday person trip ends for each land use, the analysis inputs vehicle trip ends, vehicle occupancy, and vehicle mode share factors found in earlier sections. For example, a 2,700-square-foot housing unit generates 9.05 average weekday vehicle trip ends, has a vehicle occupancy rate is 1.21, and the vehicle mode share is 86.3 percent. Based on these factors, a 2,700-square-foot housing unit generates 12.69 average weekday person trip ends $[(9.05 \text{ vehicle trip ends} \times 1.21 \text{ occupancy rate}) / 86.3 \text{ percent vehicle mode share}]$. Figure T8 includes average weekday person trip ends for each land use.

Figure T8: Average Weekday Person Trip Ends by Land Use

Residential per Development Unit					
Unit Size	Development Unit	Vehicle Trip Ends per Unit ¹	Vehicle Occupancy ²	Vehicle Mode Share ²	Person Trip Ends per Unit
850 or less	Dwelling	2.66	1.21	86.3%	3.73
851 to 1,000	Dwelling	3.41	1.21	86.3%	4.78
1,001 to 1,250	Dwelling	4.30	1.21	86.3%	6.03
1,251 to 1,500	Dwelling	5.28	1.21	86.3%	7.40
1,501 to 2,000	Dwelling	6.59	1.21	86.3%	9.24
2,001 to 2,500	Dwelling	7.96	1.21	86.3%	11.16
2,501 to 3,000	Dwelling	9.05	1.21	86.3%	12.69
3,001 to 3,500	Dwelling	9.96	1.21	86.3%	13.96
3,501 to 4,000	Dwelling	10.74	1.21	86.3%	15.06
4,001 to 4,500	Dwelling	11.43	1.21	86.3%	16.03
4,501 or more	Dwelling	12.03	1.21	86.3%	16.87

Nonresidential per Development Unit					
Development Type	Development Unit	Vehicle Trip Ends per Unit ¹	Vehicle Occupancy ²	Vehicle Mode Share ²	Person Trip Ends per Unit
Retail/Commercial	1,000 Sq Ft	37.01	1.25	94.7%	48.85
Convenience Commercial	1,000 Sq Ft	50.94	1.25	94.7%	67.24
Office	1,000 Sq Ft	10.84	1.20	89.2%	14.58
Institutional/Public	1,000 Sq Ft	10.77	1.20	89.2%	14.49
Industrial	1,000 Sq Ft	3.37	1.20	89.2%	4.53
Warehousing	1,000 Sq Ft	1.71	1.20	89.2%	2.30
Hotel/Lodging	Room	7.99	1.20	89.2%	10.75
RV Park	Pad	2.70	1.20	89.2%	3.63

1. See Land Use Assumptions
2. CDOT Travel Survey, Mesa County, 2024 (Preliminary Data)

Average Weekday Person Trips

Shown below, multiplying average weekday person trip ends and trip adjustment factors by existing development units provides the average weekday person trips generated by existing development. As shown below, existing development generates 488,921 person trips on an average weekday.

Figure T9: Average Weekday Person Trips by Land Use

Development Type	Dev Unit	ITE Code	Avg Wkday PTE	Trip Adjustment	2024 Dev Units	2024 Person Trips
Single Family	HU	Custom	13.22	55%	23,347	169,757
Multi-Family	HU	Custom	6.37	55%	8,140	28,518
Retail/Commercial	KSF	820	48.85	33%	10,242	165,108
Office	KSF	710	14.58	50%	7,639	55,692
Institutional/Public	KSF	610	14.49	50%	7,366	53,367
Industrial	KSF	130	4.53	50%	7,275	16,478
Total						488,921

PERSON MILES TRAVELED (PMT)

The transportation impact fee is calculated on a per person mile traveled (PMT) basis for all development. Costs are allocated to both residential and nonresidential development using trip generation rates, trip adjustment factors, and trip length adjustment factors.

Trip Length Weighting Factor

The transportation impact fee methodology includes a percentage adjustment, or weighting factor, to account for trip length variation by type of land use. As documented in Table 3-1, Table 3-2, and Table 3-3 of the 2022 National Household Travel Survey, person trips from residential development are approximately 124 percent of the average trip length. The residential trip length adjustment factor includes data on home-based work trips, social, and recreational purposes. Conversely, shopping trips associated with commercial development are roughly 46 percent of the average trip length while other nonresidential development typically accounts for trips that are 61 percent of the average for all trips.

Local Trip Lengths

According to recent estimates, Grand Junction provides approximately 223.1 lane miles of arterials and collectors citywide. Using the capacity standards shown below, Grand Junction’s existing network provides 1,759,670 vehicle miles of capacity – the weighted average is 7,887 vehicles per lane.

Figure T10: Existing Arterial and Collector Network

Description	Lane Miles	Lane Cap	VMC
Principal Arterial	74.9	9,000	674,100
Minor Arterial	66.6	8,000	532,400
Major Collector	63.2	7,000	442,050
Minor Collector	18.5	6,000	111,120
Total	223.1	7,887	1,759,670

Source: City of Grand Junction

To derive the average utilization (i.e., average trip length expressed in miles) of the major streets, divide vehicle miles of capacity by person trips attracted to development in Grand Junction. As shown in Figure T9, citywide development currently attracts 488,921 average weekday person trips. Dividing 1,759,670 vehicle miles of capacity by existing average weekday person trips yields an unweighted-average trip length of approximately 3.599 miles. The calibration of average trip length includes the same adjustment factors used in the impact fee calculations (i.e., commuter trip adjustment, pass-by trip adjustment, and average trip length adjustment). With these refinements, the weighted-average trip length is 4.417 miles.

Local Person Miles Traveled

Shown below are the demand indicators for residential and nonresidential land uses related to person miles traveled (VMT).

Figure T11: Average Weekday PMT by Land Use

Residential Development						
Unit Size	Development Unit	Person Trip Ends per Unit	Trip Rate Adjustment ¹	Average Trip Length (miles) ²	Trip Length Adjustment ³	PMT per Unit ¹
850 or less	Dwelling	3.73	55%	4.417	124%	11.24
851 to 1,000	Dwelling	4.78	55%	4.417	124%	14.40
1,001 to 1,250	Dwelling	6.03	55%	4.417	124%	18.16
1,251 to 1,500	Dwelling	7.40	55%	4.417	124%	22.29
1,501 to 2,000	Dwelling	9.24	55%	4.417	124%	27.83
2,001 to 2,500	Dwelling	11.16	55%	4.417	124%	33.62
2,501 to 3,000	Dwelling	12.69	55%	4.417	124%	38.23
3,001 to 3,500	Dwelling	13.96	55%	4.417	124%	42.05
3,501 to 4,000	Dwelling	15.06	55%	4.417	124%	45.37
4,001 to 4,500	Dwelling	16.03	55%	4.417	124%	48.29
4,501 or more	Dwelling	16.87	55%	4.417	124%	50.82

Nonresidential Development						
Development Type	Development Unit	Person Trip Ends per Unit	Trip Rate Adjustment ¹	Average Trip Length (miles) ²	Trip Length Adjustment ³	PMT per Unit ¹
Retail/Commercial	1,000 Sq Ft	48.85	33%	4.417	46%	32.75
Convenience Commercial	1,000 Sq Ft	67.24	33%	4.417	46%	45.08
Office	1,000 Sq Ft	14.58	50%	4.417	61%	19.64
Institutional/Public	1,000 Sq Ft	14.49	50%	4.417	61%	19.52
Industrial	1,000 Sq Ft	4.53	50%	4.417	61%	6.10
Warehousing	1,000 Sq Ft	2.30	50%	4.417	61%	3.10
Hotel/Lodging	Room	10.75	50%	4.417	61%	14.48
RV Park	Pad	3.63	50%	4.417	61%	4.89

1. See Land Use Assumptions
2. TischlerBise calculation
3. National Household Travel Survey data, 2022; TischlerBise analysis

IMPACT FEE COMPONENTS

The transportation impact fee is based on Grand Junction’s existing inventory of arterials, collectors, and trails. The use of existing standards means there are no existing infrastructure deficiencies. New development is only paying its proportionate share for growth-related infrastructure.

Principal Arterial

Grand Junction currently provides approximately 74.9 lane miles of principal arterials to existing development, and Grand Junction plans to construct additional principal arterials to serve future development. Grand Junction’s existing level of service is 0.4256 lane miles per 10,000 PMT (74.9 lane miles / (1,759,685 PMT / 10,000)), and the analysis uses the incremental expansion methodology to maintain the existing level of service for principal arterials.

Based on Engineering & Transportation Department estimates, the construction cost for principal arterials is \$2,235,034 per lane mile. The analysis uses this cost as a proxy for future growth-related principal arterial costs, and Grand Junction may use impact fees to construct principal arterials to serve future development. For principal arterials, the cost is \$95.13 per PMT (74.9 lane miles / 1,759,685 PMT X \$2,235,034 per lane mile).

Figure T12: Principal Arterial Level of Service and Cost Factors

Cost Factors	
Principal Arterial Cost per Mile	\$13,410,205
Lanes	6.0
Principal Arterial Cost per Lane Mile	\$2,235,034

Level-of-Service (LOS) Standards	
Existing Lane Miles	74.9
2024 PMT	1,759,685
Lane Miles per 10,000 PMT	0.4256
Cost per PMT	\$95.13

Source: Grand Junction Engineering & Transportation Department

Minor Arterial

Grand Junction currently provides approximately 66.6 lane miles of minor arterials to existing development, and Grand Junction plans to construct additional minor arterials to serve future development. Grand Junction’s existing level of service is 0.3782 lane miles per 10,000 PMT (66.6 lane miles / (1,759,685 PMT / 10,000)), and the analysis uses the incremental expansion methodology to maintain the existing level of service for minor arterials.

Based on Engineering & Transportation Department estimates, the construction cost for minor arterials is \$2,289,558 per lane mile. The analysis uses this cost as a proxy for future growth-related minor arterial costs, and Grand Junction may use impact fees to construct minor arterials to serve future development. For minor arterials, the cost is \$86.59 per PMT (66.6 lane miles / 1,759,685 PMT X \$2,289,558 per lane mile).

Figure T13: Minor Arterial Level of Service and Cost Factors

Cost Factors	
Minor Arterial Cost per Mile	\$11,447,791
Lanes	5.0
Minor Arterial Cost per Lane Mile	\$2,289,558

Level-of-Service (LOS) Standards	
Existing Lane Miles	66.6
2024 PMT	1,759,685
Lane Miles per 10,000 PMT	0.3782
Cost per PMT	\$86.59

Source: Grand Junction Engineering & Transportation Department

Major Collector

Grand Junction currently provides approximately 63.2 lane miles of major collectors to existing development, and Grand Junction plans to construct additional major collectors to serve future development. Grand Junction’s existing level of service is 0.3589 lane miles per 10,000 PMT (63.2 lane miles / (1,759,685 PMT / 10,000)), and the analysis uses the incremental expansion methodology to maintain the existing level of service for major collectors.

Based on Engineering & Transportation Department estimates, the construction cost for major collectors is \$2,731,175 per lane mile. The analysis uses this cost as a proxy for future growth-related major collector costs, and Grand Junction may use impact fees to construct major collectors to serve future development. For major collectors, the cost is \$98.01 per PMT (63.2 lane miles / 1,759,685 PMT X \$2,731,175 per lane mile).

Figure T14: Major Collector Level of Service and Cost Factors

Cost Factors	
Major Collector Cost per Mile	\$8,193,526
Lanes	3.0
Major Collector Cost per Lane Mile	\$2,731,175

Level-of-Service (LOS) Standards	
Existing Lane Miles	63.2
2024 PMT	1,759,685
Lane Miles per 10,000 PMT	0.3589
Cost per PMT	\$98.01

Source: Grand Junction Engineering & Transportation Department

Minor Collector

Grand Junction currently provides approximately 18.5 lane miles of minor collectors to existing development, and Grand Junction plans to construct additional minor collectors to serve future development. Grand Junction’s existing level of service is 0.1052 lane miles per 10,000 PMT (18.5 lane miles / (1,759,685 PMT / 10,000)), and the analysis uses the incremental expansion methodology to maintain the existing level of service for minor collectors.

Based on Engineering & Transportation Department estimates, the construction cost for minor collectors is \$2,695,254 per lane mile. The analysis uses this cost as a proxy for future growth-related minor collector costs, and Grand Junction may use impact fees to construct minor collectors to serve future development. For minor collectors, the cost is \$28.37 per PMT (18.5 lane miles / 1,759,685 PMT X \$2,695,254 per lane mile).

Figure T15: Minor Collector Level of Service and Cost Factors

Cost Factors	
Minor Collector Cost per Mile	\$5,390,508
Lanes	2.0
Minor Collector Cost per Lane Mile	\$2,695,254

Level-of-Service (LOS) Standards	
Existing Lane Miles	18.5
2024 PMT	1,759,685
Lane Miles per 10,000 PMT	0.1052
Cost per PMT	\$28.37

Source: Grand Junction Engineering & Transportation Department

Trail

Grand Junction currently provides approximately 28.26 miles of trails, also known as off-network active transportation corridors, to existing development, and Grand Junction plans to construct additional trails to serve future development. The total value of Grand Junction’s existing trails is \$67,230,152, and the analysis uses the weighted average of \$2,378,589 per mile (\$67,230,152 total value / 28.26 miles of existing trails) as a proxy for future growth-related trail costs.

Figure T16: Trail Cost Factors

Constructed Off-Network ATCs	Miles	Est. Construction Investment	Estimated ROW Value	Total Value
Riverfront Trail	13.77	\$14,537,861	\$14,537,861	\$29,075,722
Monument Trail	3.67	\$3,874,685	\$3,874,685	\$7,749,369
Audubon Trail	3.35	\$3,537,522	\$3,537,522	\$7,075,044
Leach Creek Trail	2.41	\$7,543,270	\$2,543,270	\$10,086,541
Eagle Rim Park	1.04	\$2,198,651	\$1,098,651	\$3,297,302
Price Ditch Trail	0.97	\$1,027,622	\$1,027,622	\$2,055,244
Highway 50 Trail	0.75	\$793,828	\$793,828	\$1,587,656
Colorado Mesa University	0.53	\$554,517	\$554,517	\$1,109,034
Independent Ranchman’s Trail	0.35	\$368,277	\$368,277	\$736,554
Main Street Bridge	0.30	\$1,600,000	\$314,931	\$1,914,931
Ridges Blvd Trail	0.28	\$449,195	\$299,195	\$748,391
GV Canal Trail	0.27	\$280,369	\$280,369	\$560,738
Ridge Dr Trail	0.20	\$212,577	\$212,577	\$425,154
Westlake Park Trail	0.16	\$171,981	\$171,981	\$343,962
Levi Ct to Horizon Drive	0.10	\$103,338	\$103,338	\$206,676
Little Bookcliff	0.04	\$46,460	\$46,460	\$92,920
Lincoln Park	0.08	\$82,456	\$82,456	\$164,913
Total	28.26	\$37,382,610	\$29,847,541	\$67,230,152

Source: Grand Junction Engineering & Transportation Department

Grand Junction’s existing level of service is 0.1606 miles per 10,000 PMT (28.26 miles / (1,759,685 PMT / 10,000)), and the analysis uses the incremental expansion methodology to maintain the existing level of service. The analysis uses the weighted average of \$2,378,589 per mile as a proxy for future growth-related costs. The trail cost is \$38.21 per PMT (28.26 miles / 1,759,685 PMT X \$2,378,589 per mile).

Figure T17: Trail Level of Service and Cost Factors

Cost Factors	
Total Value	\$67,230,152
Existing Miles	28.3
Trail Cost per Mile	\$2,378,589

Level-of-Service (LOS) Standards	
Existing Miles	28.26
2024 PMT	1,759,685
Miles per 10,000 PMT	0.1606
Cost per PMT	\$38.21

Source: Grand Junction Engineering & Transportation Department

PROJECTION OF GROWTH-RELATED TRANSPORTATION NEEDS

As shown in the *Land Use Assumptions* document, projected development includes an additional 8,180 housing units and 6,592,000 square feet of nonresidential floor area over the next 10 years. Based on the trip generation factors discussed in this section, projected development generates an additional 417,742 PMT over the next 10 years. Shown below in Figure T18, Grand Junction needs to construct approximately 17.8 lane miles of principal arterials at a cost of \$39,741,374 (17.8 lane miles X \$2,235,034 per lane mile), 15.8 lane miles of minor arterials at a cost of \$36,172,343 (15.8 lane miles X \$2,289,558 per lane mile), 15.0 lane miles of major collectors at a cost of \$40,944,901 (15.0 lane miles X \$2,731,175 per lane mile), 4.4 lane miles of minor collectors at a cost of \$11,849,979 (4.4 lane miles X \$2,695,254 per lane mile), and 6.7 miles of trails at a cost of \$15,960,159 (6.7 miles X \$2,378,589 per mile) over the next 10 years to maintain the existing levels of service.

Figure T18: 10-Year Transportation Infrastructure Needs to Accommodate Growth

Development Type	Dev Unit	Avg Wkday PTE	Trip Adjustment	Trip Length Adjustment	2024 Dev Units	2024 PMT
Single Family	HU	13.22	55%	124%	23,347	929,775
Multi-Family	HU	6.37	55%	124%	8,140	156,198
Retail/Commercial	KSF	48.85	33%	46%	10,242	335,469
Office	KSF	14.58	50%	61%	7,639	150,054
Institutional/Public	KSF	14.49	50%	61%	7,366	143,790
Industrial	KSF	4.53	50%	61%	7,275	44,398
Total						1,759,685

Average Trip Length (miles)	4.417
Average Lane Capacity	7,887

Grand Junction, Colorado	Base	1	2	3	4	5	10	10-Year Increase
	2024	2025	2026	2027	2028	2029	2034	
Single Family Units	23,347	23,960	24,573	25,186	25,799	26,412	29,477	6,130
Mobile Home Units	8,140	8,345	8,550	8,755	8,960	9,165	10,190	2,050
Retail/Commercial KSF	10,242	10,426	10,610	10,794	10,978	11,162	12,082	1,840
Office KSF	7,639	7,756	7,872	7,988	8,105	8,221	8,802	1,163
Institutional/Public KSF	7,366	7,584	7,802	8,020	8,239	8,457	9,548	2,182
Industrial KSF	7,275	7,416	7,557	7,697	7,838	7,979	8,683	1,408
Single-Family Trips	169,757	174,215	178,672	183,129	187,586	192,043	214,329	44,571
Mobile Home Trips	28,518	29,237	29,955	30,673	31,391	32,110	35,701	7,182
Residential Trips	198,276	203,451	208,627	213,802	218,977	224,153	250,029	51,753
Retail/Commercial Trips	165,108	168,074	171,041	174,007	176,973	179,940	194,772	29,664
Office Trips	55,692	56,539	57,387	58,235	59,082	59,930	64,168	8,476
Institutional/Public Trips	53,367	54,947	56,528	58,108	59,689	61,269	69,172	15,805
Industrial Trips	16,478	16,797	17,116	17,435	17,754	18,072	19,667	3,188
Nonresidential Trips	290,645	296,358	302,071	307,785	313,498	319,211	347,778	57,133
Total Person Trips	488,921	499,809	510,698	521,587	532,475	543,364	597,807	108,887
Total PMT	1,759,685	1,801,459	1,843,234	1,885,008	1,926,782	1,968,556	2,177,427	417,742
Principal Arterial Lane Miles	74.9	76.7	78.5	80.2	82.0	83.8	92.7	17.8
Minor Arterial Lane Miles	66.6	68.1	69.7	71.3	72.9	74.4	82.3	15.8
Major Collector Lane Miles	63.2	64.6	66.1	67.6	69.1	70.6	78.1	15.0
Minor Collector Lane Miles	18.5	19.0	19.4	19.8	20.3	20.7	22.9	4.4
Trail Miles	28.3	28.9	29.6	30.3	30.9	31.6	35.0	6.7

PRINCIPAL PAYMENT CREDIT

The City of Grand Junction has outstanding debt obligations of \$48,860,000 related to the construction of existing arterial and collector improvements. A credit is necessary since new development will pay the impact fee and will also contribute to future principal payments on the remaining debt through taxes. A credit is not necessary for future interest payments because the analysis excludes interest costs from the impact fee calculation. The analysis divides annual principal payments by projected PMT to determine the annual cost of principal payments per PMT. To account for the time value of money, the analysis calculates the net present value of future principal payments per PMT using the Series 2020B discount rate of 4.00 percent. The net present value of future principal payments related to existing debt is \$12.66 per PMT.

Figure T19: Principal Payment Credit

Year	2020A Principal	2020B Principal	Total Principal	PMT	Payment per PMT
2024	\$2,040,000	\$0	\$2,040,000	1,759,685	\$1.16
2025	\$1,180,000	\$0	\$1,180,000	1,801,459	\$0.66
2026	\$1,200,000	\$0	\$1,200,000	1,843,234	\$0.65
2027	\$1,225,000	\$0	\$1,225,000	1,885,008	\$0.65
2028	\$535,000	\$725,000	\$1,260,000	1,926,782	\$0.65
2029	\$0	\$1,411,000	\$1,411,000	1,968,556	\$0.72
2030	\$0	\$1,411,000	\$1,411,000	2,010,330	\$0.70
2031	\$0	\$1,411,000	\$1,411,000	2,052,105	\$0.69
2032	\$0	\$1,411,000	\$1,411,000	2,093,879	\$0.67
2033	\$0	\$1,411,000	\$1,411,000	2,135,653	\$0.66
2034	\$0	\$1,724,000	\$1,724,000	2,177,427	\$0.79
2035	\$0	\$1,724,000	\$1,724,000	2,219,201	\$0.78
2036	\$0	\$1,724,000	\$1,724,000	2,260,976	\$0.76
2037	\$0	\$1,724,000	\$1,724,000	2,302,750	\$0.75
2038	\$0	\$1,724,000	\$1,724,000	2,344,524	\$0.74
2039	\$0	\$2,105,000	\$2,105,000	2,386,298	\$0.88
2040	\$0	\$2,105,000	\$2,105,000	2,428,072	\$0.87
2041	\$0	\$2,105,000	\$2,105,000	2,469,847	\$0.85
2042	\$0	\$2,105,000	\$2,105,000	2,511,621	\$0.84
2043	\$0	\$2,105,000	\$2,105,000	2,553,395	\$0.82
2044	\$0	\$2,572,000	\$2,572,000	2,591,409	\$0.99
2045	\$0	\$2,572,000	\$2,572,000	2,629,422	\$0.98
2046	\$0	\$2,572,000	\$2,572,000	2,667,436	\$0.96
2047	\$0	\$2,572,000	\$2,572,000	2,705,450	\$0.95
2048	\$0	\$2,572,000	\$2,572,000	2,743,464	\$0.94
2049	\$0	\$2,895,000	\$2,895,000	2,781,477	\$1.04
Total	\$6,180,000	\$42,680,000	\$48,860,000		\$21.15
				Interest Rate ¹	4.00%
				Credit per PMT	\$12.66

1. Transportation 2020B

Source: Grand Junction Engineering & Transportation Department

MAXIMUM SUPPORTABLE TRANSPORTATION IMPACT FEE

Infrastructure components and cost factors for transportation impact fees are summarized in the upper portion of Figure T20. The cost per service unit is \$333.65 per PMT. Transportation impact fees for residential development are calculated per housing unit, based on unit size, and vary proportionately according to the number of PMT per housing unit. The fee of \$11,217 for a residential unit with 2,200 square feet is calculated using a cost per service unit of \$333.65 per PMT multiplied by 33.62 PMT per unit. Nonresidential impact fees are calculated per development unit and vary proportionately according to the number of PMT per development unit. The industrial fee of \$2,035 per development unit is calculated using a cost per service unit of \$333.65 per PMT multiplied by 6.10 PMT per development unit.

Figure T20: Maximum Supportable Transportation Impact Fee

Fee Component	Cost per PMT
Principal Arterial	\$95.13
Minor Arterial	\$86.59
Major Collector	\$98.01
Minor Collector	\$28.37
Trail	\$38.21
Debt Credit	(\$12.66)
Total	\$333.65

Residential Fees per Development Unit					
Unit Size	Development Unit	PMT per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
850 or less	Dwelling	11.24	\$3,750	\$3,075	\$675
851 to 1,000	Dwelling	14.40	\$4,805	\$3,075	\$1,730
1,001 to 1,250	Dwelling	18.16	\$6,059	\$3,075	\$2,984
1,251 to 1,500	Dwelling	22.29	\$7,437	\$3,285	\$4,152
1,501 to 2,000	Dwelling	27.83	\$9,285	\$5,028	\$4,257
2,001 to 2,500	Dwelling	33.62	\$11,217	\$5,738	\$5,479
2,501 to 3,000	Dwelling	38.23	\$12,755	\$7,515	\$5,240
3,001 to 3,500	Dwelling	42.05	\$14,030	\$7,515	\$6,515
3,501 to 4,000	Dwelling	45.37	\$15,138	\$7,515	\$7,623
4,001 to 4,500	Dwelling	48.29	\$16,112	\$7,515	\$8,597
4,501 or more	Dwelling	50.82	\$16,956	\$7,515	\$9,441

Nonresidential Fees per Development Unit					
Development Type	Development Unit	PMT per Unit ¹	Maximum Supportable	Current Fees	Increase / (Decrease)
Retail/Commercial	1,000 SF	32.75	\$10,927	\$7,713	\$3,214
Convenience Commercial	1,000 SF	45.08	\$15,041	\$16,396	(\$1,355)
Office	1,000 SF	19.64	\$6,553	\$6,189	\$364
Institutional/Public	1,000 SF	19.52	\$6,513	\$1,522	\$4,991
Industrial	1,000 SF	6.10	\$2,035	\$2,161	(\$126)
Warehousing	1,000 SF	3.10	\$1,034	\$983	\$51
Hotel/Lodging	Room	14.48	\$4,831	\$4,239	\$592
RV Park	Pad	4.89	\$1,632	\$3,411	(\$1,779)

1. See Land Use Assumptions

REVENUE FROM TRANSPORTATION IMPACT FEES

Projected fee revenue shown in Figure T21 is based on the development projections in the *Land Use Assumptions* document and the maximum supportable transportation impact fees. If development occurs faster than projected, the demand for infrastructure will increase along with impact fee revenue. If development occurs slower than projected, the demand for infrastructure will decrease and impact fee revenue will decrease at a similar rate. Projected impact fee revenue equals \$133,694,557 and projected expenditures equal \$144,668,755. Impact fee revenue is less than the projected expenditures due to the required debt credit.

Figure T21: Estimated Revenue from Transportation Impact Fees

Fee Component	Growth Share	Existing Share	Total
Principal Arterial	\$39,741,374	\$0	\$39,741,374
Minor Arterial	\$36,172,343	\$0	\$36,172,343
Major Collector	\$40,944,901	\$0	\$40,944,901
Minor Collector	\$11,849,979	\$0	\$11,849,979
Trail	\$15,960,159	\$0	\$15,960,159
Total	\$144,668,755	\$0	\$144,668,755

		Single-Family \$11,217 per unit	Multi-Family \$7,437 per unit	Retail/Comm. \$10,927 per 1,000 sq ft	Office \$6,553 per 1,000 sq ft	Inst./Public \$6,513 per 1,000 sq ft	Industrial \$2,035 per 1,000 sq ft
Year		Hsg Unit	Hsg Unit	KSF	KSF	KSF	KSF
Base	2024	23,347	8,140	10,242	7,639	7,366	7,275
Year 1	2025	23,960	8,345	10,426	7,756	7,584	7,416
Year 2	2026	24,573	8,550	10,610	7,872	7,802	7,557
Year 3	2027	25,186	8,755	10,794	7,988	8,020	7,697
Year 4	2028	25,799	8,960	10,978	8,105	8,239	7,838
Year 5	2029	26,412	9,165	11,162	8,221	8,457	7,979
Year 6	2030	27,025	9,370	11,346	8,337	8,675	8,120
Year 7	2031	27,638	9,575	11,530	8,453	8,893	8,261
Year 8	2032	28,251	9,780	11,714	8,570	9,111	8,401
Year 9	2033	28,864	9,985	11,898	8,686	9,329	8,542
Year 10	2034	29,477	10,190	12,082	8,802	9,548	8,683
10-Year Increase		6,130	2,050	1,840	1,163	2,182	1,408
Projected Revenue		\$71,371,236	\$15,824,462	\$20,870,099	\$7,908,164	\$14,746,909	\$2,973,688

Projected Fee Revenue | \$133,694,557

IMPLEMENTATION AND ADMINISTRATION

Impact fees should be periodically evaluated and updated to reflect recent data. City of Grand Junction will continue to adjust for inflation. If cost estimates or demand indicators change significantly, Grand Junction should update the fee calculations.

Colorado’s enabling legislation allows local governments to “waive an impact fee or other similar development charge on the development of low- or moderate-income housing, or affordable employee housing, as defined by the local government.”

CREDITS AND REIMBURSEMENTS

A general requirement that is common to development impact fee methodologies is the evaluation of credits. A revenue credit may be necessary to avoid potential double payment situations arising from one-time development impact fees plus on-going payment of other revenues that may also fund growth-related capital improvements. The determination of revenue credits is dependent upon the development impact fee methodology used in the cost analysis and local government policies.

Policies and procedures related to site-specific credits should be addressed in the resolution or ordinance that establishes the development impact fees. Project-level improvements, required as part of the development approval process, are not eligible for credits against development impact fees. If a developer constructs a system improvement included in the fee calculations, it will be necessary to either reimburse the developer or provide a credit against the fees due from that particular development.

SERVICE AREA

A development impact fee service area is a region in which a defined set of improvements provide benefit to an identifiable amount of new development. Within a service area, all new development types (single-family, commercial, etc.) are assessed at the same development impact fee rate. Land use assumptions and development impact fees are each defined in terms of this geography, so that capital facility demand, projects needed to meet that demand, and capital facility cost are all quantified in the same terms. Development impact fee revenue collected within a service area is required to be spent within that service area.

Implementation of a large number of small service areas is problematic. Administration is complicated and, because funds collected within the service area must be spent within that area multiple service areas may make it impossible to accumulate sufficient revenue to fund any projects within the time allowed.

As part of our analysis of the City and the type of facilities and improvements included in the development impact fee calculation, TischlerBise has determined that a citywide service area is appropriate for the City of Grand Junction for all impact fees with the exception of parks and recreation, which includes the 201 Service Area Boundary.

APPENDIX A: LAND USE ASSUMPTIONS

OVERVIEW

The City of Grand Junction, Colorado, retained TischlerBise to analyze the impacts of development on its capital facilities and to calculate impact fees based on that analysis. The population, housing unit, and job

projections contained in this document provide the foundation for the impact fee study. To evaluate demand for growth-related infrastructure from various types of development, TischlerBise prepared documentation on demand indicators by type of housing unit, jobs and floor area by type of nonresidential development. These metrics (explained further below) are the demand indicators to be used in the impact fee study.

Impact fees are based on the need for growth-related capital improvements, and they must be proportionate to the type of land use. The demographic data and development projections are used to demonstrate proportionality and to anticipate the need for future infrastructure. Demographic data reported by the U.S. Census Bureau, and data provided by Grand Junction and Mesa County Regional Transportation Planning Organization (RTPO) staff, are used to calculate base year estimates and annual projections for a 10-year horizon. Impact fee studies typically look out five to ten years, with the expectation that fees will be updated every three to five years.

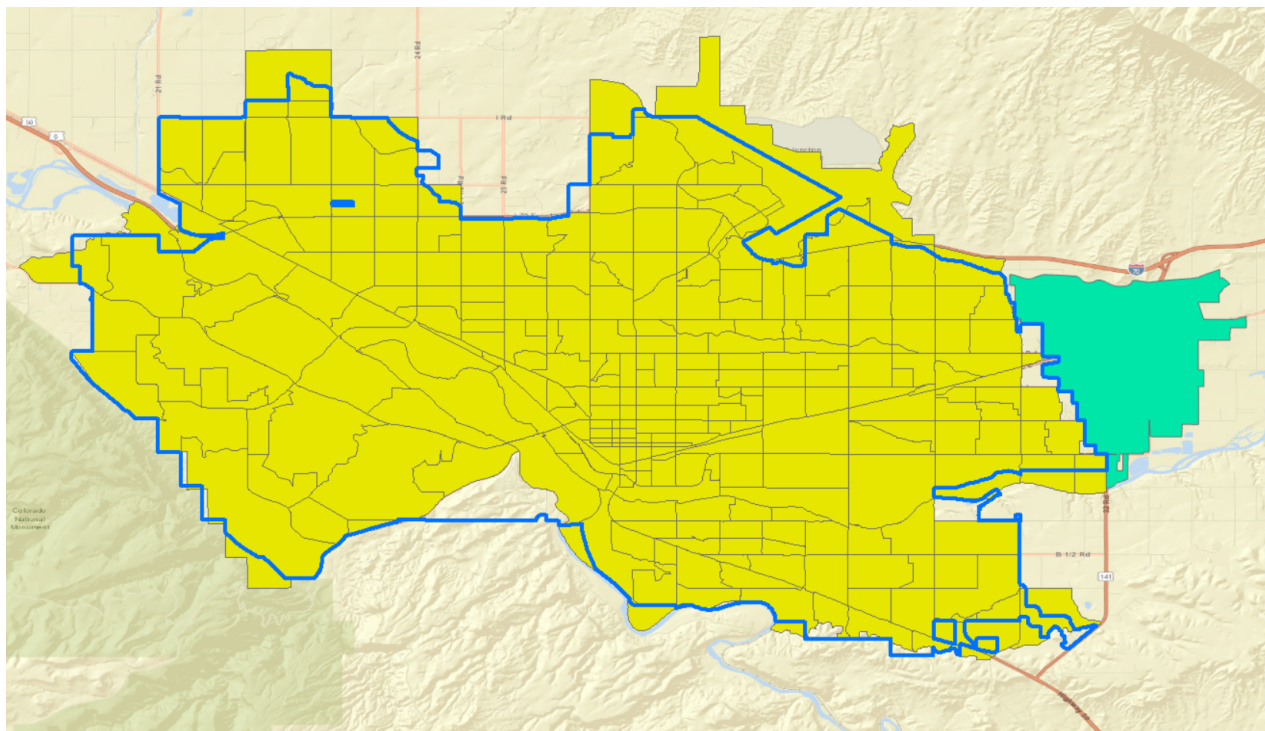
SUMMARY OF GROWTH INDICATORS

Key development projections for Grand Junction’s impact fee study are housing units and nonresidential floor area. These projections are used to estimate impact fee revenue and to indicate the anticipated need for growth-related infrastructure. The goal is to have reasonable projections without being overly concerned with precision, because impact fees methodologies are designed to reduce sensitivity to development projections in the determination of the proportionate-share fee amounts. If actual development is slower than projected, impact fee revenue will decline, but so will the need for growth-related infrastructure. In contrast, if development is faster than anticipated, Grand Junction will receive more impact fee revenue, but it will also need to accelerate infrastructure improvements to keep pace with the actual rate of development. Based on the assumptions outlined in the following sections, projected citywide development over the next ten years includes an average of 818 residential units per year and approximately 759,900 square feet of nonresidential floor area per year.

RESIDENTIAL DEVELOPMENT

Current estimates and future projections of residential development are detailed in this section, including population and housing units by type (e.g., single-family versus multi-family units). Due to differing development patterns both in and outside of City limits, TischlerBise reviewed base year population and housing unit estimates for the City of Grand Junction and specific TAZ boundaries from the Transportation Master Plan which are also associated with the 201 Sewer Service Area Boundary. The task at hand is to provide baseline population and housing unit estimates for those areas of the 201 Sewer Service Area Boundary which can reasonably be expected to be annexed into the City of Grand Junction over the next ten years. Figure A1 depicts the 201 Sewer Service Area Boundary (light blue line) and TAZ areas (yellow) incorporated into the study population and housing estimates.

Figure A1: Map of 201 Sewer Service Boundary and TAZ Areas



Occupancy by Housing Type

In 2010 the U.S. Census Bureau transitioned from the traditional long-form questionnaire to the American Community Survey (ACS), which is less detailed and has smaller sample sizes. As a result, Census data now has more limitations than before. For example, data on detached housing units are now combined with attached single units (commonly known as townhouses). For impact fees in Grand Junction, “single-family” residential includes detached units and townhouses that share a common sidewall but are constructed on an individual parcel of land. The second residential category includes all multi-family structures with two or more units on an individual parcel of land.

According to the Census Bureau, a household is a housing unit that is occupied by year-round residents. Impact fees often use per capita standards and persons per housing unit, or persons per household, to derive proportionate-share fee amounts. When persons per housing unit are used in the fee calculations, infrastructure standards are derived using year-round population. When persons per household are used in the fee calculations, the impact fee methodology assumes all housing units will be occupied, this requiring seasonal or peak population to be used when deriving infrastructure standards.

To estimate population and employment for future years, the analysis applies growth assumptions derived from *Grand Valley Metropolitan Planning Organization Mesa County TAZ Estimates*, City GIS parcel data, and standards from the Institute of Transportation Engineers, 11th edition. For the impact fee calculations, TischlerBise will rely on the above referenced as well as a variety of local and regional data sources including the 2018-2022 ACS 5-Year Estimates shown in Figure A2. Collectively, this information is used to indicate the relative number of persons per housing unit, by units in a residential structure, (2.28 PPHU Single-Family, 1.60 PPHU Multi-Family) and the housing mix (75% Single-Family, 25% Multi-Family) in Grand Junction. Because of the minimal seasonal population residing in the City, TischlerBise recommends Grand Junction impose impact fees for residential development according to the number of persons per housing unit.

Figure A2: Occupancy by Housing Type

Housing Type	Persons	Households	Persons per Household	Housing Units	Persons per Housing Unit	Housing Mix	Vacancy Rate
Single-Family Units ¹	50,729	21,230	2.39	22,266	2.28	74.60%	4.70%
Multi-Family Units ²	12,095	6,850	1.77	7,572	1.60	25.40%	9.50%
RV Park	56	13	4.31	13	4.31	0.04%	0.00%
Total	62,880	28,093	2.24	29,851	2.11	100.00%	5.90%

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates

1. Includes detached, attached (i.e. townhouses), and mobile home units.
2. Includes dwellings in structures with two or more units.

Occupancy by Bedroom Range

Impact fees must be proportionate to the demand for infrastructure. Averages per housing unit have a strong, positive correlation to the number of bedrooms, so TischlerBise recommends a fee schedule where larger units pay proportionately higher impact fees. Benefits of the proposed methodology include 1) a proportionate assessment of infrastructure demand using local demographic data and 2) a progressive fee structure (i.e., smaller units pay less, and larger units pay more).

TischlerBise creates custom tabulations of demographic data by bedroom range using individual survey responses provided by the U.S. Census Bureau in files known as Public Use Microdata Samples (PUMS). PUMS files are only available for areas of at least 100,000 persons, and Grand Junction is in Public Use Microdata Area (PUMA) 2501.

Shown below in Figure A3, cells with yellow shading indicate the unweighted PUMS data used to calculate the unadjusted estimate of 2.15 persons per housing unit for PUMA 2501. Unadjusted persons per housing unit estimates are adjusted to match the control total of 2.11 persons per housing unit for Grand Junction shown in Figure A2. Adjusted persons per housing unit estimates range from 1.18 persons per housing unit for units with zero to one bedroom up to 3.48 persons per housing unit for units with five or more bedrooms.

Figure A3: Occupancy by Bedroom Range

Bedroom Range	Persons ¹	Housing Units ¹	Housing Mix	Unadjusted PPHU	Adjusted PPHU ²
0-1	233	193	8%	1.21	1.18
2	814	496	21%	1.64	1.61
3	2,647	1,202	50%	2.20	2.16
4	1,089	396	17%	2.75	2.70
5+	340	96	4%	3.54	3.48
Total	5,123	2,383	100%	2.15	2.11

1. U.S. Census Bureau, 2018-2022 American Community Survey (ACS) 5-Year Estimates, Public Use Microdata Sample (PUMS) for Colorado PUMA 2501.

2. Represents unadjusted PUMS values scaled to control totals for Grand Junction using 2018-2022 American Community Survey (ACS) 5-Year Estimates.

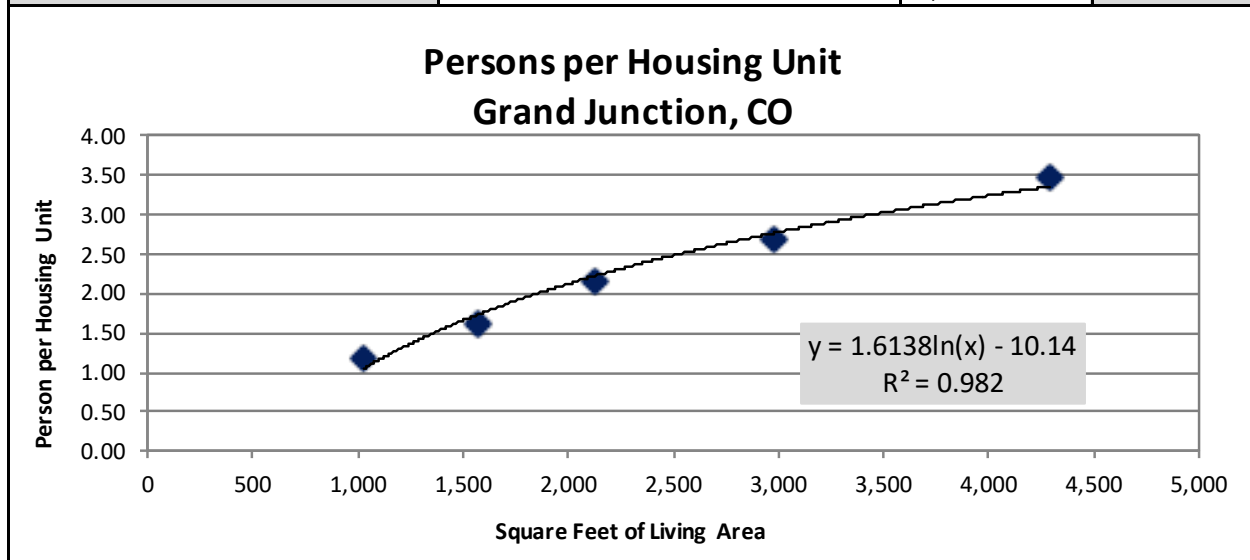
Occupancy by Housing Unit Size

To estimate square feet of living area by bedroom range, TischlerBise uses 2022 U.S. Census Bureau data for housing units constructed in the west region. Based on 2022 estimates, average square feet of living area ranges from 1,021 square feet for housing units with zero to one bedroom up to 4,292 square feet for housing units with five or more bedrooms.

Average square feet of living area and persons per housing unit by bedroom range are plotted in Figure A4 with a logarithmic trend line derived from U.S. Census Bureau estimates discussed in the previous paragraph and adjusted persons per housing unit estimates shown in Figure A3. Using the trend line formula shown in Figure A4, TischlerBise calculates the number of persons per housing unit by square feet of living area. TischlerBise recommends a minimum size range of 850 square feet or less and a maximum size range of 4,501 square feet or more. Using these size ranges, occupancy in the minimum size range is 21 percent of the maximum size range (0.75 PPHU / 3.52 PPHU), 47 percent of the multi-family average shown in Figure A2 (0.75 PPHU / 1.60 PPHU), and 33 percent of the single-family average shown in Figure A2 (0.75 PPHU / 2.28 PPHU).

Figure A4: Occupancy by Housing Unit Size

Average persons per housing unit derived from 2018-2022 ACS PUMS data from Grand Junction. Unit size for 0-1 bedroom from the 2022 U.S. Census Bureau average for all multi-family units constructed in the Census West region. Unit size for all other bedrooms from the 2022 U.S. Census Bureau average for single-family units constructed in the Census West region.	Actual Averages per Housing Unit			Fitted-Curve Values	
	Bedrooms	Square Feet	Persons	Sq Ft Range	Persons
	0-1	1,021	1.18	850 or less	0.75
	2	1,573	1.61	851 to 1,000	0.97
	3	2,123	2.16	1,001 to 1,250	1.23
	4	2,974	2.70	1,251 to 1,500	1.52
	5+	4,292	3.48	1,501 to 2,000	1.91
				2,001 to 2,500	2.32
				2,501 to 3,000	2.64
				3,001 to 3,500	2.91
				3,501 to 4,000	3.14
				4,001 to 4,500	3.34
			4,501 or more	3.52	



Recent Residential Construction

The City of Grand Junction provided TischlerBise with recent City residential building permit activity, shown in Figure A5. Although not used to calculate the projections, it is worth noting a total of 2,341 single-family permits and 1,748 multi-family permits were issued in the City from 2019 through 2023. Permit distribution over this period was 57 percent single family and 43 percent multi-family. This ratio differs from the existing housing unit mix of 75 percent single-family units and 25 percent multi-family units shown in Figure A2.

Figure A5: Recent Grand Junction Residential Permit Activity

Year	Single Family	%	Multifamily	%	Total
2019-2023	2,341	57.3%	1,748	42.7%	4,089

Source: City of Grand Junction, CO Building Permit Data

Current Population and Housing

Population and housing unit estimates for the 201 Sewer Service Area Boundary were compiled from data provided by MPO. TischlerBise applied the population, housing unit estimates found within the *Grand Valley 2040 Transportation Master Plan* in each TAZ to derive the number of existing housing units in the service area but outside of the City limits. The resulting estimates, shown in Figure A6, suggest approximately 15,250 housing units (46,737 units within the service area - 31,487 units within the City limits of Grand Junction) exist in the 201 Sewer Service Area Boundary, outside of the City limits for which *impact fees will not be collected*. Deducting the estimated 2024 Grand Junction population from the 201 Sewer Service Area Boundary TAZ area (114,329 - 65,517) results in an estimated population of 48,812 currently residing in the 201 Sewer Service Area, outside of City limits.

Figure A6: 2024 Population and Housing Units

2024 Residential Development			
Residential	City Limits	201 Service Area	Total
Population	65,517	48,812	114,329
Housing Units	31,487	15,250	46,737

Projected Population and Housing Units

Figure A7 summarizes housing unit projections from 2024 to 2034 for the City of Grand Junction, as well as the 201 Sewer Service Area Boundary. Growth in residential units is based on the past five-year average of 818 additional units annually. A total of 55,777 housing units, (9,040 net new units) are projected in the area (City and 201 Sewer Service Area Boundary) by 2034. Given historic housing dispersion throughout the 201 Sewer Service Area Boundary and observed residential unit composition for the area, housing estimates were broken down between existing City limits and areas currently outside but within the 201 Sewer Service Area Boundary. Approximately 75 percent of Grand Junction’s housing units are single-family units. City housing unit growth projections have mirrored this ratio, resulting in an additional 6,130 single-family units and 2,050 multi-family units by 2034. For areas outside current City limits but within the 201 Sewer Service Area Boundary, 100 percent the growth of 860 new housing units have been attributed to single-family development reflecting the rural composition of the area. All totals shown in Figure A7 represent estimates as of January 1st of each year.

Figure A7: Grand Junction Residential Development Projections

	2024	2025	2026	2027	2028	2029	2034	10-Year Increase
	Base Year	1	2	3	4	5	10	
POPULATION								
Grand Junction	65,517	67,242	68,968	70,694	72,419	74,145	82,773	17,256
201 /Outside City	48,812	48,982	49,153	49,323	49,493	49,663	52,082	3,270
Total	114,329	116,225	118,121	120,016	121,912	123,808	134,856	20,526
HOUSING UNITS								
GJ Single-Family	23,347	23,960	24,573	25,186	25,799	26,412	29,477	6,130
GJ Multi-Family	8,140	8,345	8,550	8,755	8,960	9,165	10,190	2,050
Grand Junction Total	31,487	32,305	33,123	33,941	34,759	35,577	39,667	8,180
201 Bdry Single-Family	15,250	15,326	15,403	15,480	15,557	15,635	16,110	860
Total Housing Units	46,737	47,631	48,526	49,421	50,316	51,212	55,777	9,040

NONRESIDENTIAL DEVELOPMENT

In addition to data on residential development, the calculation of impact fees requires data on nonresidential development. All land use assumptions and projected growth rates are consistent with socioeconomic data from the Grand Valley 2040 Regional Transportation Plan and the 2024 ESRI Business Summary Report for Grand Junction. TischlerBise uses the term “jobs” to refer to employment by place of work. In Figure A8, the nonresidential development prototypes were used by TischlerBise to derive nonresidential floor area and average weekday vehicle trips ends are shown.

Employment Density Factors and Trip Generation Factors

The prototype for future projections of commercial / retail development is an average-size Shopping Center (ITE 820). Commercial / retail development (i.e. retail and eating / drinking places) is assumed to average 471 square feet per job. For future industrial development, Industrial Park (ITE 130) is a reasonable proxy with an average of 864 square feet per job. For office / other service development, General Office (ITE 710) is the prototype for future office development, with an average of 307 square

feet per job. And finally, Hospital (ITE 610) is the prototype for future institutional development, with an average of 350 square feet per job.

Figure A8: Nonresidential Demand Indicators

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit*	Wkdy Trip Ends Per Employee*	Emp Per Dmd Unit	Sq. Ft. Per Emp
110	Light Industrial	1,000 Sq Ft	4.87	3.10	1.57	637
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	864
140	Manufacturing	1,000 Sq Ft	4.75	2.51	1.89	528
150	Warehousing	1,000 Sq Ft	1.71	5.05	0.34	2,953
310	Hotel	Room	7.99	14.34	0.56	n/a
416	Campground/RV Park**	Campsite	2.70	n/a	0.05	n/a
620	Nursing Home	Bed	3.06	3.31	0.92	n/a
610	Hospital	1,000 Sq Ft	10.77	3.77	2.86	350
710	General Office (avg size)	1,000 Sq Ft	10.84	3.33	3.26	307
720	Medical-Dental Office	1,000 Sq Ft	36.00	8.71	4.13	242
730	Government Office	1,000 Sq Ft	22.59	7.45	3.03	330
840	Auto Sales/Service	1,000 Sq Ft	27.84	11.20	2.49	402
430	Golf Course	Hole	30.38	3.74	1.47	680
444	Movie Theater	1,000 Sq Ft	78.09	53.12	1.47	680
820	Shopping Center (avg size)	1,000 Sq Ft	37.01	17.42	2.12	471
912	Bank	1,000 Sq Ft	100.35	32.73	3.07	326
934	Fast Food	1,000 Sq Ft	50.94	5.45	9.35	107
945	Convenience Store w/Gas Sales	1,000 Sq Ft	624.20	241.21	2.59	386

*Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

**Employees per Demand Unit from National Association of RV Parks & Campgrounds (ARVC), "2023 Outdoor Hospitality Industry Benchmarking Report."

Nonresidential Floor Area

To determine future employment growth TischlerBise utilized different data sources to forecast future nonresidential development in the study area. To project future employment, our analysis relies on the 2024 ratio of 0.96 jobs per person observed in the MPO’s employment data (96 jobs per 100 residents). TischlerBise utilized the ESRI employment estimate of 64,412 jobs for Grand Junction to derive a 2024 base, with jobs allocated to one of four nonresidential categories: Retail/Commercial, Office, Institutional/Public, or Industrial. Utilizing GIS parcel data from the MPO, TischlerBise was able to determine that base year nonresidential square footage totals approximately 32.5 million square feet. Retail/Commercial development occupies 10.2 million square feet, Office development occupies 7.6 million square feet, Institutional development occupies 7.3 million square feet, and Industrial development occupies 7.2 million square feet.

Figure A9: Grand Junction Nonresidential Floor Area and Employment Estimates 2024

Industry Sector	2024 Jobs ¹	Share of Total Jobs	2024 Estimated Floor Area ²
Retail/Commercial	14,843	24%	10,242,103
Office	14,370	23%	7,639,464
Institutional/Public	23,661	38%	7,366,028
Industrial	10,114	16%	7,275,135
Total	62,988	100%	32,522,730

1. Esri Business Analyst Online, Business Summary, 2024
2. Grand Valley Metropolitan Planning Organization

Projected Nonresidential Floor Area

Once the 2024 employment data was derived for the City, employment growth projections were distributed according to observed 2024 MPO employment sector percentages for the City of Grand Junction (23% Commercial/Retail, 38% Office, 24% Institutional, and 16% Industrial/Flex) (Figure A9). The resulting analysis results in an increase of 16,965 jobs. To calculate growth of nonresidential floor area, TischlerBise applied ITE square feet per employee estimates shown in Figure A8 by estimated sector employment to derive net new annual growth. Projected nonresidential growth over the next ten years results in an increase of 6.59 million square feet. Totals shown below represent estimates as of January 1st of each year.

Figure A10: Nonresidential Development Projections

	5 year increment >>							10-Year Increase
	2024 Base Year	2025 1	2026 2	2027 3	2028 4	2029 5	2034 10	
EMPLOYMENT BY TYPE								
GJ Retail/Commercial	14,843	15,234	15,625	16,016	16,407	16,798	18,752	3,909
GJ Office	14,370	14,748	15,127	15,505	15,884	16,262	18,155	3,785
GJ Institutional/Public	23,661	24,284	24,907	25,531	26,154	26,777	29,893	6,232
GJ Industrial	10,114	10,380	10,647	10,913	11,180	11,446	12,778	2,664
Grand Junction Total	62,988	64,647	66,306	67,965	69,624	71,283	79,578	16,590
NONRES. FLOOR AREA (X 1,000 SF)								
GJ Retail/Commercial	10,242	10,426	10,610	10,794	10,978	11,162	12,082	1,840
GJ Office	7,639	7,756	7,872	7,988	8,105	8,221	8,802	1,163
GJ Institutional/Public	7,366	7,584	7,802	8,020	8,239	8,457	9,548	2,182
GJ Industrial	7,275	7,416	7,557	7,697	7,838	7,979	8,683	1,408
Grand Junction Total	32,523	33,182	33,841	34,500	35,160	35,819	39,115	6,592

DEVELOPMENT PROJECTIONS

Error! Not a valid bookmark self-reference. includes a summary of cumulative development projections used in the impact fee study. Base year estimates for 2024 are used in the impact fee calculations and *reflect the entirety of the City and Sewer Service 201 growth boundary*. Development projections are used to illustrate a possible future pace of demand for service units and cash flows resulting from revenues and expenditures associated with those demands. All totals represent estimates as of January 1st of each year.

Figure A11: Development Projections Summary

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10-Year Increase
	Base Year	1	2	3	4	5	6	7	8	9	10	
POPULATION												
Grand Junction	65,517	67,242	68,968	70,694	72,419	74,145	75,871	77,596	79,322	81,048	82,773	17,256
201 /Outside City	48,812	48,982	49,153	49,323	49,493	49,663	49,833	50,232	50,807	51,424	52,082	3,270
Total	114,329	116,225	118,121	120,016	121,912	123,808	125,704	127,828	130,129	132,471	134,856	20,526
HOUSING UNITS												
GJ Single-Family	23,347	23,960	24,573	25,186	25,799	26,412	27,025	27,638	28,251	28,864	29,477	6,130
GJ Multi-Family	8,140	8,345	8,550	8,755	8,960	9,165	9,370	9,575	9,780	9,985	10,190	2,050
Grand Junction Total	31,487	32,305	33,123	33,941	34,759	35,577	36,395	37,213	38,031	38,849	39,667	8,180
201 Bdry Single-Family	15,250	15,326	15,403	15,480	15,557	15,635	15,729	15,823	15,918	16,013	16,110	860
Total Housing Units	46,737	47,631	48,526	49,421	50,316	51,212	52,124	53,036	53,949	54,863	55,777	9,040
EMPLOYMENT BY TYPE												
GJ Retail/Commercial	14,843	15,234	15,625	16,016	16,407	16,798	17,189	17,580	17,971	18,362	18,752	3,909
GJ Office	14,370	14,748	15,127	15,505	15,884	16,262	16,641	17,019	17,398	17,776	18,155	3,785
GJ Institutional/Public	23,661	24,284	24,907	25,531	26,154	26,777	27,400	28,023	28,647	29,270	29,893	6,232
GJ Industrial	10,114	10,380	10,647	10,913	11,180	11,446	11,712	11,979	12,245	12,512	12,778	2,664
Grand Junction Total	62,988	64,647	66,306	67,965	69,624	71,283	72,942	74,601	76,260	77,919	79,578	16,590
NONRES. FLOOR AREA (X 1,000 SF)												
GJ Retail/Commercial	10,242	10,426	10,610	10,794	10,978	11,162	11,346	11,530	11,714	11,898	12,082	1,840
GJ Office	7,639	7,756	7,872	7,988	8,105	8,221	8,337	8,453	8,570	8,686	8,802	1,163
GJ Institutional/Public	7,366	7,584	7,802	8,020	8,239	8,457	8,675	8,893	9,111	9,329	9,548	2,182
GJ Industrial	7,275	7,416	7,557	7,697	7,838	7,979	8,120	8,261	8,401	8,542	8,683	1,408
Grand Junction Total	32,523	33,182	33,841	34,500	35,160	35,819	36,478	37,137	37,796	38,456	39,115	6,592

APPENDIX B: LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Grand Junction will collect development fees from all new residential units. One-time development fees are determined by site capacity (i.e. number of residential units). This category also contains mobile homes and recreational vehicles

Single-Family: Single-Family detached is a one-unit structure detached from any other house, that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides. Also included in the definition is Single family attached (townhouse), which is a one-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.

202 Multi-Family: 2+ units (duplexes and apartments) are units in structures containing two or more housing units, further categorized as units in structures with “2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more apartments.”

RV Park: RV parks typically do not have large buildings, they may feature a park office, restrooms, showers, pools, fishing ponds, walking trails, laundry facilities, and sometimes small retail shops or a restaurant. The park is made up of individual sites for RVs, each with enough space for parking, a small outdoor area, and the necessary hookups. RV parks are typically located near highways, tourist areas, or natural attractions. Short-term stays or overnight visits generally result in more frequent turnover and higher trip generation. Long-term stays or seasonal residents might generate fewer trips on a daily basis, though the overall traffic may still be significant during the peak tourist season.

NONRESIDENTIAL DEVELOPMENT

The proposed general nonresidential development categories (defined below using 2017 ITE Land Use Code) can be used for all new construction within Grand Junction. Nonresidential development categories represent general groups of land uses that share similar average weekday vehicle trip generation rates and employment densities (i.e., jobs per thousand square feet of floor area).

Land Use: 820 Shopping Center Description. A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center’s composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands.

Land Use: 934 Fast-Food Restaurant with Drive-Through Window. This type of land use is characterized by a fast-food restaurant with large drive-through surrounded by a small surface parking lot with access to one or more commercial roads. Establishments have large carry-out clientele, long hours of service (including 24-hour service). The restaurant does not provide table service, and a patron typically orders from a menu board and pays before receiving the meal. A typical stay is less than 30 minutes.

Land Use: 710 General Office Building Description. A general office building has a floor area of 5,000 square feet or greater and houses multiple tenants; it is a location where business affairs, commercial or industrial organizations, or professional persons or firms are conducted. An office building or buildings may contain a mixture of tenants including professional services, insurance companies, investment brokers, and tenant services, such as a bank or savings and loan institution, a restaurant, or cafeteria and service retail facilities.

Land Use: 730 Government Office Building Description. A government office building is an individual office building containing either the entire function or simply one agency of a city, state, federal, or other government unit. Government office buildings do not contain retail, manufacturing, or residential uses and can vary in size from a single story to several stories. They tend to have a large number of office workers, administrative staff, and may also accommodate meetings and public services.

Land Use: 130 Industrial Park. This type of land use involves areas dedicated to industrial activities, where multiple businesses or industrial tenants operate within a designated space. Industrial parks are typically characterized by large, often single-story buildings with high ceilings to accommodate manufacturing equipment, storage, and loading docks, located in areas where there is significant transportation access, such as near highways, railroads, or ports. Buildings may vary in size, and the park may include multiple separate buildings or be comprised of a few larger structures designed for specific industrial activities. The primary activities in these parks generally include manufacturing, assembly, processing, and warehousing. Unlike Light Industrial Parks (Land Use 110), Industrial Parks may accommodate a wider range of industries, including those with moderate to heavy manufacturing or production operations.

Land Use: 150 Warehousing Description. A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Land Use: 310 Hotel. Hotels usually consist of multiple floors of guest rooms, common areas, service facilities, and amenities. The design and size can vary from small boutique hotels with a few rooms to large, multi-story hotels with hundreds of rooms and expansive meeting and recreational spaces. The property may also have parking garages, loading docks, and amenities designed to serve both business and leisure travelers. Hotels are often located near highways, business districts, tourist attractions, or transportation hubs, such as airports or train stations, to accommodate the travel needs of guests. Some hotels may be part of larger commercial complexes, while others are standalone properties.