City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Meeting Agenda

Tax Increment Reinvestment Zone Number One Board

Wednesday, January 28, 2026 | **12:00 PM** | **CANCELED**

*****CANCELLATION NOTICE*****
PLEASE NOTE - THIS MEETING WAS CANCELLED ON JANUARY 27, 2026 AND WILL NOT TAKE PLACE.

After determining that a quorum is present, the Tax Increment Reinvestment Zone Number One Board of the City of Denton, Texas, will convene in a Regular Meeting on Wednesday, January 28, 2026, at 12:00 p.m. in the Development Service Center Training Rooms at 401 N. Elm Street, Denton, Texas at which the following items will be considered:

1. PRESENTATIONS FROM MEMBERS OF THE PUBLIC

Citizens may complete one Request to Speak "Public Comment" card per night for the "Presentations from Members of the Public" portion of the meeting and submit it to City Staff. Presentations from Members of the Public time is reserved for citizen comments regarding item not listed on the agenda. No official action can be taken on these items. Presentation from Members of the Public is limited to five speakers per meeting with each speaker allowed a maximum of three (3) minutes.

2. ITEMS FOR CONSIDERATION

A. TIF26-001 Consider approval of the meeting minutes for September 24, 2025.

B. TIF26-002 Consider approval of the 2026 Meeting Schedule for the Tax Increment Reinvestment Zone Number One Board.

C. TIF26-003 Receive a report, hold a discussion, and make a recommendation to City Council regarding a Downtown Reinvestment Grant Program Fire Suppression application for 115 - 116 N. Elm Street, Fine Arts Theater of Denton, LLC. The Downtown Economic Development Committee recommends approval (7-0).

D. TIF26-004 Receive a report, hold a discussion, and make a recommendation to City Council regarding a Downtown Reinvestment Grant Program application for 114 W. Oak Street, West Oak Coffee Bar. The Downtown Economic Development Committee recommends approval of up to $50,000 (7-0).

E. TIF26-005 Receive a report, hold a discussion, and make a recommendation to City Council regarding a Downtown Reinvestment Grant Program Fire Suppression application for 114 W. Oak Street, West Oak Coffee Bar. The Downtown Economic Development Committee recommends approval (7-0).

3. WORK SESSION

A. TIF26-006 Receive a report and hold a discussion regarding the Downtown Reinvestment Grant

Policy.

B. TIF26-007 Receive a report and hold a discussion regarding Section 2.83(c) of the City Code which governs boards, commissions, and committees specifically related to the attendance policy.

C. TIF26-008 Staff Reports:

1. Future Agenda Items - Brittany Sotelo

4. CONCLUDING ITEMS

A. Under Section 551.042 of the Texas Open Meetings Act, respond to inquiries from the Tax Increment Reinvestment Zone Number One Board or the public with specific factual information or recitation of policy, or accept a proposal to place the matter on the agenda for an upcoming meeting AND Under Section 551.0415 of the Texas Open Meetings Act, provide reports about items of community interest regarding which no action will be taken, to include: expressions of thanks, congratulations, or condolence; information regarding holiday schedules; an honorary or salutary recognition of a public official, public employee, or other citizen; a reminder about an upcoming event organized or sponsored by the governing body; information regarding a social, ceremonial, or community event organized or sponsored by an entity other than the governing body that was attended or is scheduled to be attended by a member of the governing body or an official or employee of the municipality; or an announcement involving an imminent threat to the public health and safety of people in the municipality that has arisen after the posting of the agenda.

NOTE: The Tax Increment Reinvestment Zone Number One Board reserves the right to adjourn into a Closed Meeting on any item on its open meeting agenda consistent with Chapter 551 of the Texas Government Code, as amended, or as otherwise allowed by law.

CERTIFICATE

I certify that the above notice of meeting was posted on the official website (https://tx-denton.civicplus.com/242/Public-Meetings-Agendas) and bulletin board at City Hall, 215 E. McKinney Street, Denton, Texas, on January 22, 2026, in advance of the three (3) business day posting deadline, as applicable, and in accordance with Chapter 551 of the Texas Government Code.

_____

OFFICE OF THE CITY SECRETARY

NOTE: THE CITY OF DENTON'S DESIGNATED PUBLIC MEETING FACILITIES ARE ACCESSIBLE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY WILL PROVIDE ACCOMMODATION, SUCH AS SIGN LANGUAGE INTERPRETERS FOR THE HEARING IMPAIRED, IF REQUESTED AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE OF THE SCHEDULED MEETING. PLEASE CALL THE CITY SECRETARY'S OFFICE AT 940-349-8309 OR USE TELECOMMUNICATIONS DEVICES FOR THE DEAF (TDD) BY CALLING 1-800-RELAY-TX SO THAT REASONABLE ACCOMMODATION CAN BE ARRANGED.

MINUTES
CITY OF DENTON
TAX INCREMENT REINVESTMENT ZONE NUMBER ONE BOARD
September 24, 2025

After determining that a quorum was present, the Tax Increment Financing Reinvestment Zone Number One Board of the City of Denton, Texas, convened in a Regular Meeting on Wednesday, September 24, 2025, at 12:02 p.m. in the Development Service Center, Training Rooms 1 and 2 at 401 N. Elm Street, Denton, Texas at which the following items were considered:

PRESENT: Daniel Abasolo (Vice-Chair), Brian Beck, Taylor Brakefield, Vicki Byrd, Marybeth Reinke Doyle, and Tim Stoltzfus

ABSENT: Suzanne Johnson (Chair)

STAFF: Scott Bray, Clay Parker, Kristen Pulido, Brittany Sotelo, Erica Sullivan, and Matilda Weeden

1. **PRESENTATIONS FROM MEMBERS OF THE PUBLIC**
   Citizens may complete one Request to Speak "Public Comment" card per night for the "Presentations from Members of the Public" portion of the meeting and submit it to City Staff. Presentations from Members of the Public time is reserved for citizen comments regarding item not listed on the agenda. No official action can be taken on these items. Presentation from Members of the Public is limited to five speakers per meeting with each speaker allowed a maximum of three (3) minutes.

   No presentations from members of the public.

2. **ITEMS FOR CONSIDERATION**

   Staff notified the board that Work Session Item TIF25-013 was moved to Items for Consideration as a vote was needed.

A. <u>TIF25-012</u> Consider approval of the meeting minutes for May 28, 2025.

Byrd made a motion to approve the minutes of May 28, 2025. Stoltzfus seconded the motion. Motion carried (6-0).

AYES (6): Abasolo, Beck, Brakefield, Byrd, Reinke Doyle, and Stoltzfus
NAYS (0): None

B. <u>TIF25-013</u> Receive a report, hold a discussion, and make a recommendation to City Council regarding an amendment to the Downtown Reinvestment Grant Program Policy.

Brakefield made a motion to recommend approval of an amendment to the Downtown Reinvestment Grant Program Policy. Reinke Doyle seconded the motion. Motion carried (6-0).

AYES (6): Abasolo, Beck, Brakefield, Byrd, Reinke Doyle, and Stoltzfus
NAYS (0): None

3. WORK SESSION

A. <u>TIF25-014</u> Receive a report and hold a discussion regarding Legislative updates from the recently completed 2025 Texas Legislative session.

Staff presented the item and discussion followed. No action was taken.

B. <u>TIF25-015</u> Receive a report and hold a discussion regarding the Tax Increment Reinvestment Zone Number One budget.

Staff presented the item and discussion followed. No action was taken.

C. <u>TIF25-016</u> Receive a report and hold a discussion regarding future agenda items and topics.

Staff presented the item and discussion followed. No action was taken.

4. CONCLUDING ITEMS

With no further business, the meeting adjourned at 12:46 p.m.

Suzanne Johnson, Chair	**Vanessa Esparza, Board Secretary**
Tax Increment Reinvestment Zone Number One	**Administrative Assistant**

Minutes Approved On: _____

City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: **Economic Development**

ACM: **Christine Taylor**

DATE: **January 28, 2026**

SUBJECT

Consider approval of the 2026 Meeting Schedule for the Tax Increment Reinvestment Zone Number One Board.

BACKGROUND

During the January 28, 2020 City Council meeting, the City's Code of Ordinances Section 2-29 (City Council Rules of Procedure) Subsection (h) (creation of committees, boards, and commissions) was amended. The amended rules of procedure require boards, commissions, and committees to establish a regular meeting schedule, which is to be adopted annually.

The Tax Increment Reinvestment Zone (TIRZ) Number One Board typically meets on the fourth Wednesday of every other month, unless the TIRZ Number One Board schedules a special called meeting. A draft 2026 meeting calendar is presented for the Board's consideration with an initial 2026 meeting date.

EXHIBITS

Exhibit 1 – Agenda Information Sheet
Exhibit 2 – 2026 Meeting Schedule

Respectfully submitted:
Vanessa Esparza
Administrative Assistant

TAX INCREMENT
REINVESTMENT ZONE NUMBER ONE BOARD
2026 MEETING SCHEDULE

Unless notified otherwise, all meetings will be held at 12:00 p.m., on the fourth Wednesday of every other month at Development Service Center, 401 N Elm Street, Denton, Texas 76201.

2026 Regular Meeting Dates

March 25, 2026

May 27, 2026

July 22, 2026

September 23, 2026

November 18, 2026 *1 week early due to Thanksgiving

2027 Initial Meeting Date

January 27, 2027

*Meetings will be cancelled if no voting items are on the agenda.

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AGENDA INFORMATION SHEET

DEPARTMENT: **Economic Development**

ACM: **Christine Taylor**

DATE: **January 28, 2026**

SUBJECT

Receive a report, hold a discussion, and make a recommendation to City Council regarding a Downtown Reinvestment Grant Program Fire Suppression application for 115 – 116 N. Elm Street, Fine Arts Theater of Denton, LLC. The Downtown Economic Development Committee recommends approval (7-0).

BACKGROUND

The Fine Arts Theater was built in 1934 and has been the centerpiece of the Denton Square for over 80 years. However, its entertainment roots date back further to the Graham Opera House, established in 1877. By 1935, after the opera house's era ended, the building was transformed into the Texas Theatre, joining the vibrant "Theatre Row" of Denton alongside names like the Majestic and the Dreamland. The theater landscape evolved, and by 1957, the Texas Theatre was renamed The Fine Arts Theater. Although it faced challenges, including a closure in 1981 and a fire in 1982, its legacy has persisted as an icon and landmark of the Downtown Denton Square.

The Theater was purchased by Fine Arts Theater of Denton, LLC in 2018. Since acquiring the property, the owners have made strides in the predevelopment and planning phases:

- Engaged Architexas, a Dallas-based historic preservation architectural firm, to assist in the development of renovation plans.
- Remediate asbestos and mold, ensuring the structure meets health and safety standards.
- Completed demolition of the interior in readiness for a renovation and expansion.
- Completed construction of a new roof.
- Partnership with local contractor Tim Beaty Builders to value-engineer and formulate a comprehensive renovation budget.
- Completed renovation plans and specifications and received a city permit.
- Parts 1 and 2 of the historic tax credit applications are approved by the National Park Service and Texas Historical Commission. Part 3 will be completed and the final award of the tax credits is done at the completion of the project.

Project
The Fine Arts Texas Theatre renovation is a significant undertaking, representing a capital investment of $9,119,623. Once completed, the theater will offer a variety of spaces tailored to diverse audience sizes and needs:

- A 200-seat main theater
- A 30-seat VIP Mezzanine
- A 50-seat private theater

In addition to the viewing areas, the theater will house a concession and bar area. The theater's functionality extends beyond just film screenings. It is envisioned as a multi-use venue, capable of hosting film festivals, concerts, live performances, and private event rentals. This improvement will support the increase in property value for the Tax Increment Reinvestment Zone Number One and provide improvements to health and safety.

Projected Improvements include: Fire Suppression System
Project Submitted Expenses: $118,447.13
Grant Request: $50,000.00
Applicable Policy Limits:

- *Fire Suppression Systems:* Installation of a new fire suppression system or necessary updates to an existing fire suppression system in accordance with the International Fire Code (IFC) and International Building Code Chapter 9, currently followed by the City of Denton. Grant limits: Fire Suppression System grants are limited to a 50% match with a cap of $50,000 per grant.

PRIOR ACTION/REVIEW
On April 2, 2024, City Council approved Ordinance 24-415 approving an Economic Development agreement under Chapter 380 of the Local Government Code to promote economic development, increase foot traffic, stimulate business activity and economic growth of the City of Denton between the City of Denton and Fine Arts Theater of Denton, LLC for an amount not to exceed $1,620,869 of Tax Increment Reinvestment Zone Number One funds.

On December 4, 2025, the Downtown Economic Development Committee (DEDC) reviewed the Fine Arts Theater, LLC application for Fire Suppression. Fire Suppression system applications automatically receive the maximum score of 40 points which equals a grant recommendation of up to $50,000.

EXHIBITS
Exhibit 1 – Agenda Information Sheet
Exhibit 2 – Grant Application
Exhibit 3 – Presentation

Respectfully submitted:
Kristen Pulido
Main Street Program Manager
Office of Economic Development

From: Smartsheet Automation
To: Pulido, Kristen
Subject: Fine Arts Theater of Denton, LLC has completed the Downtown Reinvestment Grant form
Date: Friday, September 26, 2025 9:49:40 AM

This message has originated from an **External Source**. Please be cautious regarding links and attachments.



<!--[if !mso]--> <!--[endif]-->

Fine Arts Theater of Denton, LLC has completed the Downtown Reinvestment Grant form

Fine Arts Theater of Denton, LLC has completed the Downtown Reinvestment Grant form:

• Address: 115-116 N Elm St, Denton, TX 76201

• Type of work: Fire Suppression System

• Planned Improvements: Fire suppression system - design, mobilization, material, labor. Included contractor estimate, preliminary drawings, survey (meets and bounds), W-9 and photos. Will email a couple additional photos to Kristen Pulido as there is an attachment limit.

• Total Cost:

• Total Grant Request:

Additional Notes:
• The prospect's submitted total cost is not equal to the sum of individual costs reported in the form.
• The prospect's submitted total grant request is not equal to the sum of individual grants reported in the form.


DRG App Data

Details

Changes since 9/26/25, 9:47 AM

1 row added

9 attachments added

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1 row added or updated (shown in yellow)

Row 3

Business name	Fine Arts Theater of Denton, LLC
Created date	09/26/25, 9:47 AM
Applicant name	Brad Andrus
Applicant mailing address	212 S Elm St, Denton, TX 76201
Phone number	[redacted]
Email	[redacted]
Building owner different from applicant?	No
Building owner (if different from applicant)	
Building owner phone	
Building owner email	
Building name	Texas Fine Arts Theatre
Project site/address	115-116 N Elm St, Denton, TX 76201
Type of work	Fire Suppression System
Planned Improvements Details	Fire suppression system - design, mobilization, material, labor. Included contractor estimate, preliminary drawings, survey (meets and bounds), W-9 and photos. Will email a couple additional photos to Kristen Pulido as there is an attachment limit.
Downtown benefit	Preserving and protecting a historic landmark, helping to revitalize downtown
General or fire suppression	Fire suppression system

application	
Facade/building rehab cost	
Facade/building rehab requested grant	
Awnings cost	
Awnings requested grant	
Signs cost	
Signs requested grant	
Impact fees cost	
Impact fees requested grant	
Utility upgrades cost	
Utility upgrades requested grant	
Interior/code improvements cost	
Interior/code improvements requested grant	
Fire suppression system cost	118447.13
Fire suppression system requested grant	50000
Total cost (submission)	
Total cost	

(Smartsheet)	118447.13
Total grant request (submission)	
Total grant request (Smartsheet)	50000
Message Details	• The prospect's submitted total cost is not equal to the sum of individual costs reported in the form. • The prospect's submitted total grant request is not equal to the sum of individual grants reported in the form.

Changes made by web-form@smartsheet.com

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9 attachments added

- WIN_20250908_10_01_51_Pro.jpg (3M) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- Denton Fine Arts Theater - Fire Sprinkler System Installtion.pdf (399k) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- WIN_20250908_10_01_43_Pro.jpg (3M) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- W-9.pdf (557k) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- WIN_20250908_10_02_37_Pro.jpg (2M) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- WIN_20250908_10_05_19_Pro.jpg (3M) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- Survey 2.19.25.pdf (287k) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- FP-02.pdf (4M) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC
- FP-01.pdf (5M) added by web-form@smartsheet.com on Row 3: Fine Arts Theater of Denton, LLC

You are receiving this email because you are subscribed to a workflow "New application notification" (ID# 6133402949707652) on sheet DRG App Data
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DOWNTOWN REINVESTMENT GRANT AGREEMENT FORM

Please complete and return with the Downtown Reinvestment Grant Application to the Economic Development office, 401 N. Elm St., Denton, Texas. If you have any questions, please contact the Economic Development Department at 940- 349-7776.

I have met with a representative from the Economic Development Department, and I have read and fully understand the Downtown Reinvestment Grant procedures established by the Denton City Council. I intend to use this grant program for the aforementioned renovation projects to advance the efforts of revitalization and historic preservation of Denton's historic downtown. *I have not received, nor will I receive insurance monies for this revitalization project.*

I understand that if I am awarded a Downtown Reinvestment Grant by the City of Denton, any deviation from the approved project may result in the partial or total withdrawal of the grant. (If I am awarded a reinvestment grant for facade, awning or sign work and the facade, sign or awning is altered for any reason within **one (1) year** from construction, I may be required to reimburse the City of Denton immediately for the full amount of the grant.)

FINE ARTS THEATER OF DENTON, LLC

Business/Organization Name

	BRAD ANDRUS	9/16/25
Applicant's Signature	*Printed Name*	*Date*

Building Owner's Signature (if different from applicant)	*Printed Name*	*Date*

This section is to be completed by Economic Development staff.

Date considered by DEDC	*Recommendation*	*Staff Signature*
Date considered by TIRZ #1 Board	*Recommendation*	*Staff Signature*
Date considered by City Council	*Approval*	*Staff Signature*

TRINITY
FIRE SUPPRESSION

Office: 817.591.1647

PO Box 162533
Fort Worth, TX 76161
SCR-G-2886876

Date: July 21, 2025

Job Name: Denton Fine Arts Theater

Job Location: 115 Elm Street Denton, Texas 76201

Scope of Work:

-The scope of work for this project is to provide all labor, materials, and project management to complete the installation of a new wet fire protection system for the above location. This will include all permits, fees, safety to complete the above scope of work per NFPA 13 and the city of Denton fire Prevention code.

Pricing: GOOD FOR 30 DAYS

BASE BID (tax excluded) …….…….. **$118,447.13**

NOTE: This quote is subject to change based on quantities of materials needed. If additional materials are needed other than provided in the project specification and contract drawings, a change order shall be submitted to the General Contractor and accepted prior to any work being performed.

Your signature below authorizes Trinity Fire Suppression LLC to schedule work as identified above to be completed and invoiced for payment.

_____	_____
Printed Signature Trinity Fire Suppression LLC	Printed Signature
_____	_____
Authorized Signature Trinity Fire Suppression LLC	Authorized Signature
_____	_____
Date	Date

TRINITY
FIRE SUPPRESSION

Office: 817.591.1647

PO Box 162533
Fort Worth, TX 76161
SCR-G-2886876

Clarifications and exclusions:

1. Allow a minimum of **6** weeks from receipt of CAD files to use as backgrounds for Shop Drawings and Submittal Delivery.
2. Adequate city water supply is to be provided at the base of the riser. This proposal does not include a fire pump or water storage tank in our pricing.
3. NO fire alarm work or electrical work is included in this proposal.
4. Any changes by fire marshal above and beyond what is required by NFPA 13.
5. NO painting of pipe or protection from painting is included in this proposal.
6. The proposal **limits** the scope of work in this building to fire sprinkler system only. This proposal specifically excludes any work associated with fire alarm systems, and any other portable or fixed fire protection systems outside the scope of work specified.
7. Overtime pay scales for scope labor are **not** included. Installation shall be performed during normal working hours.
8. All underground utilities including 5ft out from building.
9. Owner/Contractor shall provide the following at no cost: **120V power for tools, trash disposal.**
10. This proposal **excludes** engineering, engineer review, and/or study. System calculations will be performed using Hydracad or AutoSprink. All design and installation practices will be performed within the criteria outlined by the manufacturers, which includes the standards set forth by NFPA 13, and Underwriters Laboratories and Factory Mutual.
11. Fire extinguishers are **not** included.
12. Crane(s), hoist(s), or other lifting device(s) for Trinity Fire Suppression LLC material only, as required by the contract documents, are included. The buyer shall provide a clear, level, solid, and unobstructed area to set up such lifting device(s), as well as a clear, level, solid, and unobstructed access to such lifting device(s).
13. Complete AutoCAD backgrounds of the project are to be **provided** by the **Buyer** at no cost to Trinity Fire Suppression LLC.
14. Customer has indicated certified payroll **not** required. If certified payroll is required, additional charges shall apply.
15. Applicable use and/or sales taxes **are** included.
16. Any CCIP or OCIP credit is **not** included.
17. OCIP/CCIP value is **not** factored into selling price or cost if an optional project selling price adjustment.
18. Bid Bonds are **NOT** included.
19. Payment & Performance bonds are **NOT** included.
20. This proposal is based on providing a complete and operational system per the proposed scope of work. Any additional labor or materials required due to schedule revisions, work stoppages, owner, insurance underwriter or AHJ review comments, delays caused by others or circumstances beyond Trinity Fire Suppression LLC control may result in additional charges.

Standard Terms and Conditions

(1) This proposal is expressly conditioned upon the Terms and Conditions contained or referred to herein, including those set forth on the reverse side and those contained in any attachments hereto.

TRINITY
FIRE SUPPRESSION

Office: 817.591.1647

PO Box 162533
Fort Worth, TX 76161
SCR-G-2886876

(2) Trinity Fire Suppression LLC(hereafter "TFS")'s liability on any claim for loss or damage arising out of this contract or from the performance or breach thereof or connected with the supplying of any labor, equipment, goods or material hereunder, or their sale, resale, operation or use, whether based on contract, warranty, tort (including negligence) or other grounds, shall not exceed the price paid to TFS for such labor, equipment, goods or material, or part thereof involved in the claim. TFS shall not, under any circumstances, be liable for any labor charges without the prior written consent of TFS. TFS shall not be liable, whether as a result of breach of contract, warranty, tort (including negligence), or other grounds, for special, consequential, incidental or punitive damages, including, but not limited to, loss of profits, revenues, loss of the product or any associated product, cost of capital, cost of substitute products, facilities or services, downtime costs or claims. If TFS furnishes Customer with advice or other assistance which concerns any labor, equipment, goods, or material furnished hereunder, or any system or equipment in which of such equipment, goods or material may be installed, and which is not pursuant to this contract, the furnishing of such advice or assistance will not subject TFS to any liability, whether based on contract, warranty, tort (including negligence) or any other grounds.

(3) This Agreement constitutes the entire agreement between the parties, supersedes any previous understanding or agreement of the parties, and may be changed only by written instrument, signed by all parties. There are no representations, oral or written, other than those set forth herein and this Agreement cannot be cancelled except by mutual written agreement of all parties. In case any one or more of the provisions contained in this Agreement are determined to be invalid, illegal, or unenforceable in any respect, such provision shall be modified to the minimum extent necessary for enforceability. To the extent it cannot be so modified, the Agreement shall be construed as if such provision(s) had never been contained herein.

(4) All work to be performed by TFS will be performed during normal working hours (8:00am to 5:00 pm local time) Monday through Friday (excluding holidays), unless additional times are specifically described in a special provision to this Agreement.

(5) TFS shall not be responsible for failure to render services due to causes beyond its control including by not limited to work stoppages, fires, civil disobedience, riots, acts of God, or any other cause beyond the control of TFS.

(6) In the event Customer requires TFS to delay service or completion of the work under this proposal, payment pursuant to this proposal shall not be withheld or delayed on such account. TFS shall have the right to deliver any portion of the equipment, goods, material, or service to be furnished hereunder and to bill Customer therefore, and Customer agrees to pay for the same in accordance with terms of the payment hereof upon notification that such shipment is ready for delivery, notwithstanding the fact that Customer may be unable to receive or provide suitable storage space for any such partial delivery. In such an event, TFS may store such portion of the equipment, goods or material ready for shipment at Customer's risk and expense.

(7) The amount of any past, present or future occupation, sales, use, service, excise or other similar tax which TFS shall be liable for, either on its own behalf or on behalf of Customer, or otherwise, with respect to any equipment, goods, material or service covered by this proposal, shall be in addition to the prices set forth herein and shall be paid by Customer.

(8) The Customer agrees to provide access to the covered systems to be serviced; provide ladders, lifts, and any other equipment necessary for TFS to access the covered systems to be serviced; supply suitable electrical service; provide a safe work environment; to make payments as provided in this Agreement

(9) Disputes. **Any dispute between Contractor and Owner arising out of or relating to this Agreement or the breach thereof, shall first be subject to mediation. In the event mediation is unsuccessful, said dispute shall be decided by arbitration**. If not otherwise agreed, arbitration shall be conducted by the American Arbitration Association under its commercial construction rules. Owner waives its right to participate in any class action suits or claims against Contractor. Should Contractor prevail in any affirmative claim, or successfully defend against Owner's claims, Contractor shall be entitled to its attorney's fees and all other costs incurred therein. The arbitrator's award shall be final, and judgment may be entered upon it in any Court having jurisdiction thereof.

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(10) This Agreement will begin on the Agreement Date indicated on the front page and continue for an initial term of one (1) year, and continue thereafter from year to year unless terminated. The Customer or TFS may terminate this Agreement at the end of any service year by giving thirty (30) days written notice to the other party.

(11) Customer agrees to pay TFS all the sums due under this proposal in accordance with the terms specified. Customer hereby grants a security interest to TFS in all equipment, goods and material described on the reverse side of this Agreement as security for the indebtedness created hereunder and any other indebtedness due TFS by Customer. On default of any payment by Customer to TFS, and at TFS's option, the entire balance shall become immediately due and payable and TFS shall have the right to foreclose and resell the said equipment, goods and material in accordance with the Provisions of the Texas Business and Commerce Code (Uniform Commercial Code) at public or private sale.

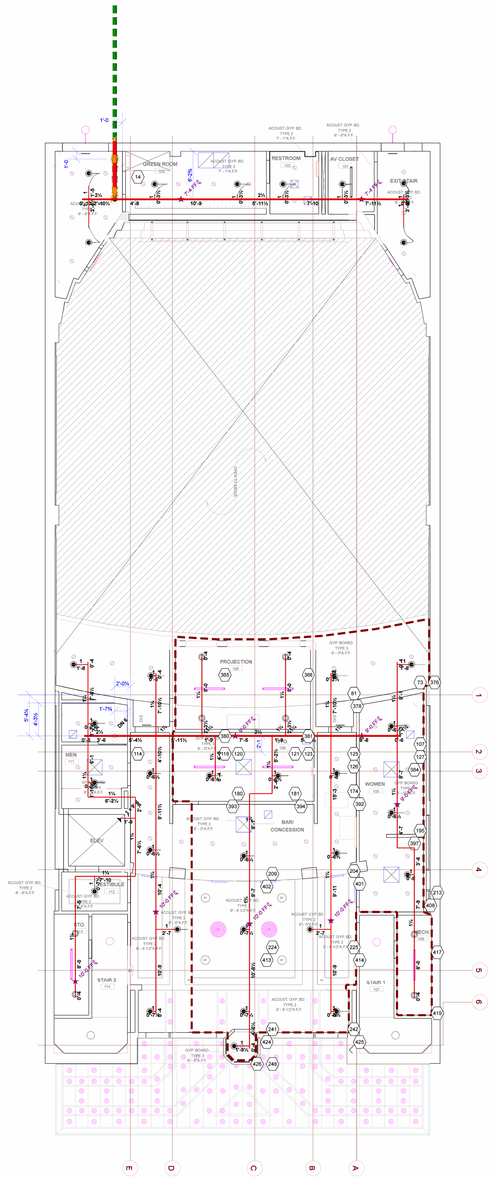
(12) Changed Scope. Owner is entitled to order changes to the work consisting of alterations in, additions to, or omissions from the agreed-upon scope, and Owner authorizes Contractor to adjust the Contract price accordingly. Contractor reserves the right to perform any changed or additional work with Owner's verbal instruction, but shall not be required to perform any such work without written authorization.

(13) Pricing is valid for only 30 days from the date of the attached quote. Please call for a revised quote if older than 30 days.

(14) All Terms are NET 30 days unless otherwise stated. Payable in US dollars. MasterCard and Visa credit payments are taken.

(15) **Warning**; Despite frequent testing, and due to, but not limited to, any or all of the following; criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. TFS does not represent that the product or system will prevent any personal injury or property loss by burglary, robbery, fire, or otherwise and does not guarantee that these events will not occur. Consequently, TFS shall have no liability for any personal injury, property damage, or other loss based on a claim that the product or the serviced systems failed to give warning. Therefore the customers should take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and or damage.

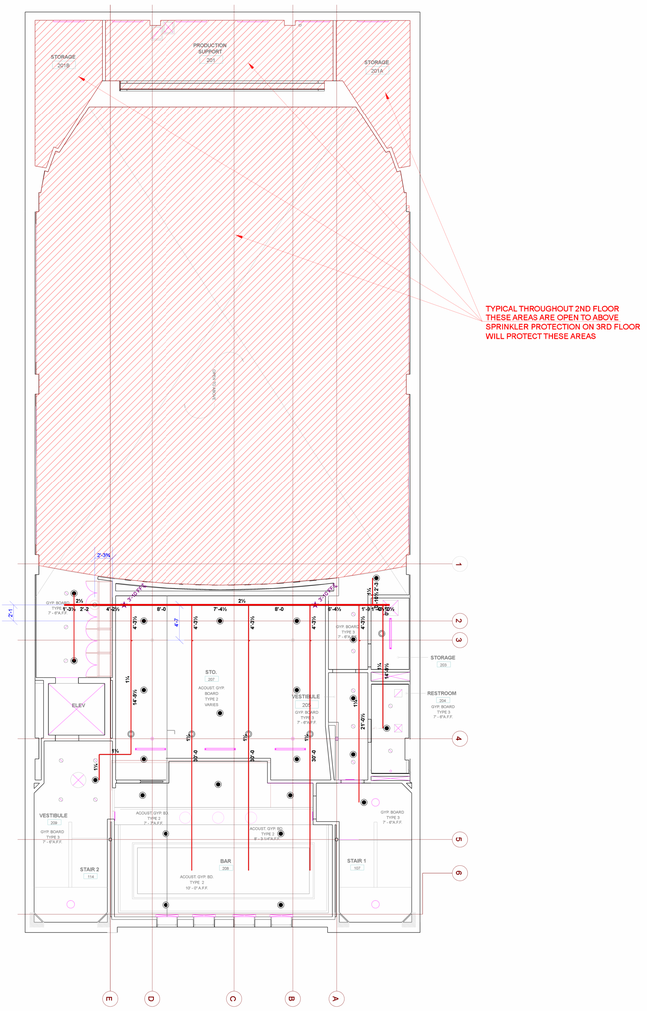
Terms and conditions of the purchase order or contract shall be subject to review. Final agreement to terms shall be by written agreement between the purchaser/contractor and TFS and be based on a contract in like nature to a standard AIA subcontract document and shall reference this proposal.



Hydraulic Information	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.10 for 1500.00ft² (Actual 1556.51ft²)
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	21
K-FACTOR	5.6
TOTAL WATER REQUIRED	513.55
TOTAL PRESSURE REQUIRED	44.151
BASE of RISER (gpm)	513.55
BASE of RISER (psi)	44.151
SAFETY MARGIN (psi)	+23.829 (35.1%)

01 LEVEL 01 - FIRE PLAN 0'-0" AFF

SCALE: 1/8" = 1'-0"



TYPICAL THROUGHOUT 2ND FLOOR
THESE AREAS ARE OPEN TO ABOVE
SPRINKLER PROTECTION ON 3RD FLOOR
WILL PROTECT THESE AREAS

02 LEVEL 02 - FIRE PLAN 10'-8" AFF

SCALE: 1/8" = 1'-0"

N

W E

S

SPRINKLER HEAD LEGEND

0 2 4 6 8 10

MANUF.	MODEL	STYLE	NPT	K	ORIFICE	TEMP (F)	RESPONSE	ESCUTCHEON/ FINISH	NOTES	SYMBOL	QTY.
RELIABLE	F1FR 56	PENDENT	1/2"	5.6	1/2"	155	QR	CHROME	SIN: RA1414	●	00
RELIABLE	F1FR 56	UPRIGHT	1/2"	5.6	1/2"	200	QR	BRASS	SIN: RA1425	○	00
RELIABLE	F1FR 56	SIDEWALL	1/2"	5.6	1/2"	200	QR	BRASS		▶	00
										TOTAL:	00

TRINITY FIRE SUPPRESSION
PO Box 162533 Fort Worth, TX 76161
Office (817) 591-1647 dpenny@trinityfs.co
Steven Sumblin Williams RME-G-1661581

I have reviewed these plans and certify that they comply with the adopted NFPA standards.

RME Signature: _____

Printed RME Name: _____

RME#:_____ Exp: _____

New ☐ Addition ☐ Alteration ☐

REV #	DATE	DESCRIPTION

PERMIT SET - 08.23.2019

DRAWN DATE: 09.25.2025

PERMIT NO.:

DENTON FINE ARTS

EXTERIOR & INTERIOR REHABILITATION

115 N. ELM ST.
DENTON, TX 76201

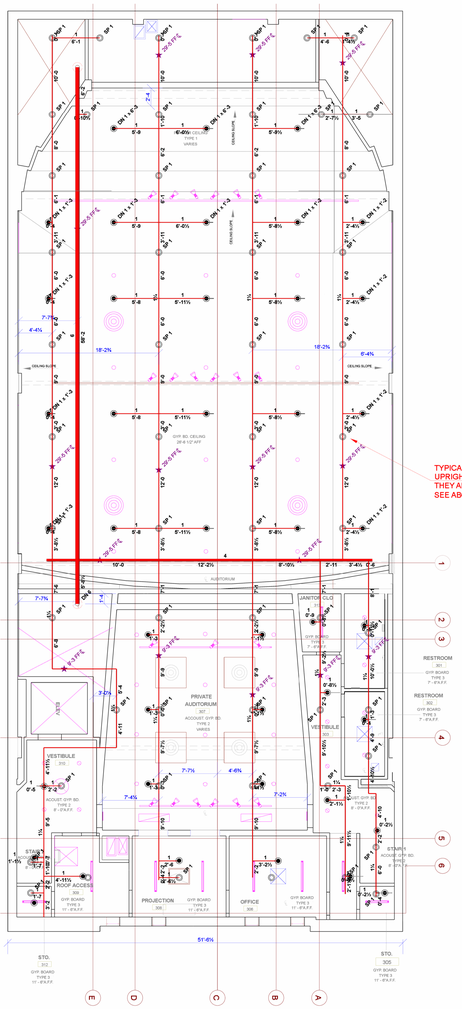
DRAWING NAME:
FIRE SPRINKLER PLAN LVL 01 & LVL 02

SCALE: 1/8" = 1'-0

DRAWN BY: C.V.

DATE: 09.25.2025

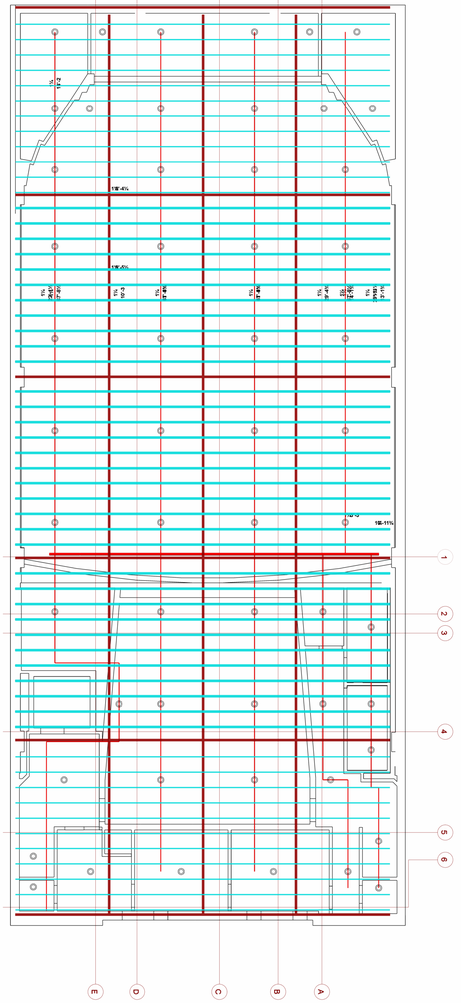
DRAWING: FP-01



03 LEVEL 03 - BELOW CEILING FIRE PLAN

SCALE: 1/8" = 1'-0"

20'-2" AFF



03 LEVEL 03 - ABOVE CEILING FIRE PLAN

SCALE: 1/8" = 1'-0"

20'-2" AFF

N

W E

S

SPRINKLER HEAD LEGEND

0 2 4 6 8 10

MANUF.	MODEL	STYLE	NPT	K	ORIFICE	TEMP (F)	RESPONSE	ESCUTCHEON/ FINISH	NOTES	SYMBOL	QTY.
RELIABLE	F1FR 56	PENDENT	1/2"	5.6	1/2"	155	QR	CHROME	SIN: RA1414	●	00
RELIABLE	F1FR 56	UPRIGHT	1/2"	5.6	1/2"	200	QR	BRASS	SIN: RA1425	○	00
RELIABLE	F1FR 56	SIDEWALL	1/2"	5.6	1/2"	200	QR	BRASS		▶	00
										TOTAL:	00

TRINITY FIRE SUPPRESSION

PO Box 162533 Fort Worth, TX 76161

Office (817) 591-1647 dpenny@trinityfs.co

Steven Sumblin Williams RME-G-1661581

I have reviewed these plans and certify that they comply with the adopted NFPA standards.

RME Signature: _____

Printed RME Name: _____

RME#:_____ Exp: _____

New ☐ Addition ☐ Alteration ☐

REV #	DATE	DESCRIPTION
PERMIT SET - 08.23.2019		
DRAWN DATE: 09.25.2025		
PERMIT NO.:		

DENTON FINE ARTS

EXTERIOR & INTERIOR REHABILITATION

115 N. ELM ST.
DENTON, TX 76201

DRAWING NAME:
FIRE SPRINKLER PLAN LVL 03

SCALE: 1/8" = 1'-0

DRAWN BY: C.V.

DATE: 09.25.2025

DRAWING: FP-02

115-116 N. Elm
Fine Arts Theater Denton, LLC
Fire Suppression
Downtown Reinvestment Grant





115-116 N. Elm
Fine Arts Theater Denton, LLC
Fire Suppression
Downtown Reinvestment Grant





January 28, 2026

FINE ARTS THEATER OF DENTON, LLC.

115 – 116 N. Elm St.

Kristen Pulido
Main Street Program Manager
Office of Economic Development

FY 25/26 Downtown Reinvestment Grant Budget Status

FY 25/26 Downtown Reinvestment Grant Pipeline Stage		
Status	**Total**	**Est. Amount Awarded**
Application Review	4	$160,000
Awaiting Application	12	$472,500
Leads	4	$225,000
TOTAL		**$857,500**

Projected 25/26 Tax Increment Reinvestment Zone Number One Grants		
Owner/Business	**Address**	**Requested Amount**
Fine Arts Theater of Denton, LLC	115-116 N. Elm St.	$50,000
West Oak Coffee Bar	114 W. Oak St.	$50,000
West Oak Coffee Bar	114 W. Oak St.	$50,000
	TOTAL	**$150,000**
	FY 25/26 Grant Budget	***$200,000***
	Est. Fund Balance	***$50,000***

ALIGNMENT WITH CITY PLANS

- **City's Strategic Plan**
  - Key Focus Area 3: Foster Economic Opportunity and Affordability
    - Grow Denton's Economic Vitality
  - Key Focus Area 4: Strengthen Community and Quality of Life
    - Preserve Community Character and Identity
    - Strengthen Community Amenities

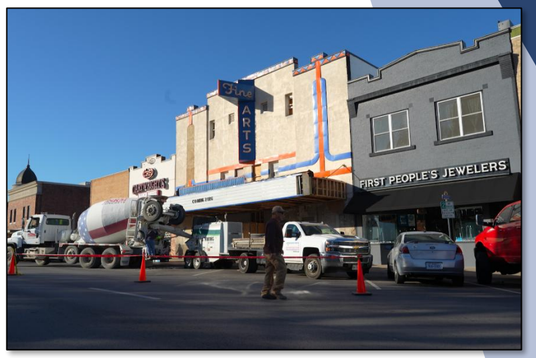
- **Economic Development Strategic Plan**
  - 2D.2 Downtown Development

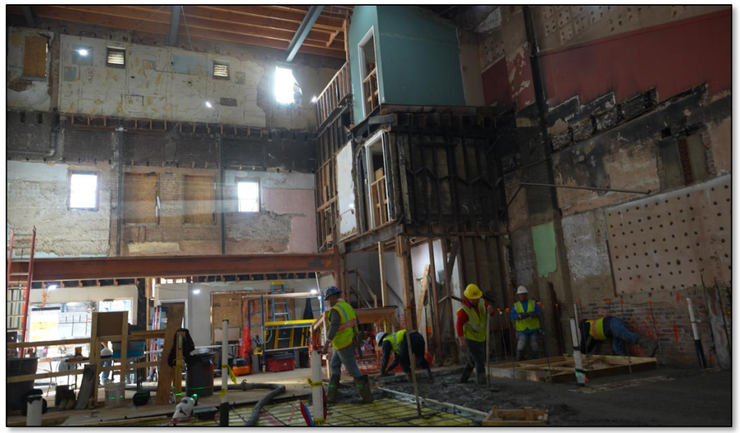
- **Design Downtown Plan**
  - 3E Explore Opportunities for Transformative Projects
    - Music and Art Venues
  - 4 Promote Nightlife, Music, Events, History, and Art

BACKGROUND

- Built in 1934
- Within the Historic Denton Square District
- Suffered a fire in 1982
- 2018 - Fine Arts Theater of Denton, LLC purchased the building
  - Engaged Architexas, to assist in the development and renovation plans.
  - Remediated asbestos and mold
  - Completed construction of new roof.
  - Partnered with local contractor to value-engineer and formulate a comprehensive renovation budget
  - Completed renovation plans and specifications and received a city permit.
  - Parts 1 and 2 of the historic tax credit applications are approved by the National Park Service and the Texas Historical Commission.







ABOUT THE PROJECT

- **Capital Investment of $9,119,623**
- Multi-Use Theater: Live performances, movies, special events, film festivals, concerts, and private rentals
  - A 200-seat main theater
  - A 30-seat VIP Mezzanine
  - A 50-seat private theater
  - One of the few theaters in TX to have the capability to screen 70mm film prints.





FIRE SUPPRESSION

Projected Project Cost: $118,447.13

Fire Suppression System applications automatically receive the maximum score of 40 points = grant recommendation up to $50,000.

Fine Arts Theater of Denton, LLC - Grant Application		
Project Category	**Estimated Cost**	**Grant Limit**
Fire Suppression	$118,447.13	50% up to $50,000
Total Project Cost	**$118,447.13**	**$59,223.50**
Total Grant Request:	***$50,000***	

PRIOR ACTION

On December 4, 2025, the Downtown Economic Development Committee (DEDC) reviewed the Fire Arts Theater, LLC application for Fire Suppression. Fire Suppression System applications automatically receive the maximum score of 40 points which equals a grant recommendation up to $50,000. The Downtown Economic Development Committee recommends approval (7-0).

NEXT STEPS:

Recommend approval of grant amount by the DEDC to City Council.

Questions?

Brad Andrus
Co-Owner, Fine Arts Theater, LLC

City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: **Economic Development**

ACM: **Christine Taylor**

DATE: **January 28, 2026**

SUBJECT

Receive a report, hold a discussion, and make a recommendation to City Council regarding a Downtown Reinvestment Grant Program application for 114 W. Oak Street, West Oak Coffee Bar. The Downtown Economic Development Committee recommends approval of up to $50,000 (7-0).

BACKGROUND

Matt Fisher and Clay Rozell opened West Oak Coffee in Downtown Denton in 2014 with the vision of creating a warm, inviting space where Dentonites could gather and enjoy high-quality coffee. Although Clay Rozell is no longer an owner or partner in West Oak Coffee Bar, the original vision helped lay the foundation for what would become the Voltage Coffee Project, an organization that connects coffee lovers both locally and globally. Voltage Coffee Project also serves as a distributor for several local coffee shops and organizations, including Eagle Cawffee, Marty B's Coffee, and the University of North Texas, among others.

The building at 114 W. Oak is part of the Historic Denton Square District. The buildings along W. Oak Street, along the northern edge of the district, are all two-story commercial buildings dating primarily from the late nineteenth and early twentieth centuries.

Project

After more than a decade of successful operation, the West Oak team is planning to expand their business to the building's second floor, which has remained vacant for over fifty years. These improvements will support the increase in property value and sales tax for the Tax Increment Reinvestment Zone Number One.

The business owners have coordinated with Cameron Robertson, Historic Preservation Officer, during the preliminary design process to obtain a Certificate of Design Consistency, confirming that the proposed work preserves and enhances the building's historic character. On November 4, 2025, the Historic Preservation Officer issued a Letter of Approval verifying that the updates to the façade and windows meet all applicable design standards.

Projected Improvements include: Façade & Building Renovation, Impact Fees, Utility Upgrades, Interior/Code Improvements
Project Submitted Expenses: $362,132
Grant Request: $50,000.00
Applicable Policy Limits:

- *Façade Rehabilitation:* Facade rehabilitation and building grants are limited to a 50% match of the eligible project's costs, with a cap of $50,000 per grant for facade, roof and foundation work. Roof and foundation repair may constitute no more than half of the request and shall only be considered for funding if included as a portion of a larger project.
- *Impact Fees:* Impact Fee grants are limited to a 50% match with a cap of $50,000 per grant.
- *Utility Upgrades:* Utility Upgrade grants are limited to a 50% match with a cap of $50,000 per grant.
- *Interior Code Improvements:* Interior/Code Improvement grants are limited to a 50% match with a cap of $50,000 per grant.

PRIOR ACTION/REVIEW

The building at 114 W. Oak St. previously received a $25,000 Downtown Reinvestment Grant in 2014, which at the time was funded through mixed beverage tax revenue. In 2018, the funding source for this grant program was changed to the Tax Increment Reinvestment Zone Number One.

On December 4, 2025, the Downtown Economic Development Committee (DEDC) reviewed and scored the grant application. The application received an average score of 33.4 points, making it eligible for a recommendation of up to $50,000. These scores support the recommendation to approve the application as requested. The grant application request and DEDC recommendation are up to $50,000.

OPTIONS

1. Recommend approval of grant amount recommended by the DEDC to City Council.
2. Recommend a lesser amount than recommended by the DEDC to City Council.
3. Do not recommend approval of grant application.

EXHIBITS

Exhibit 1 – Agenda Information Sheet
Exhibit 2 – Grant Application
Exhibit 3 – Presentation

Respectfully submitted:
Kristen Pulido
Main Street Program Manager
Office of Economic Development

From: Smartsheet Automation
To: Pulido, Kristen
Subject: West Oak Coffee Bar has completed the Downtown Reinvestment Grant form
Date: Saturday, September 6, 2025 11:52:05 AM

This message has originated from an **External Source**. Please be cautious regarding links and attachments.



<!--[if !mso]--> <!--[endif]-->

West Oak Coffee Bar has completed the Downtown Reinvestment Grant form

West Oak Coffee Bar has completed the Downtown Reinvestment Grant form:

• Address: 114 West Oak Street

• Type of work: Utility Upgrades, Facade & Building Renovation, Impact Fees, Interior/Code Improvements

• Planned Improvements: The space has been vacant for over the past 50 years so we will be bringing the building completely up to code, restoring as much of the original details as possible and finishing the space in an elegant finish out.

All new:
electric
plumbing
HVAC
decor
lighting

• Total Cost: 362132

• Total Grant Request: 50000

Additional Notes:

 DRG App Data

Details Changes since 9/6/25, 11:49 AM

1 row added

---

1 row added or updated (shown in yellow)

Row 1

Business name	West Oak Coffee Bar
Created date	09/06/25, 11:49 AM
Applicant name	Matthew Fisher
Applicant mailing address	114 West Oak Street
Phone number	+1 [redacted]
Email	[redacted]
Building owner different from applicant?	Yes
Building owner (if different from applicant)	Melinda McBride
Building owner phone	[redacted]
Building owner email	[redacted]
Building name	West Oak Coffee Bar
Project site/address	114 West Oak Street
Type of work	Utility Upgrades Facade & Building Renovation Impact Fees Interior/Code Improvements
Planned Improvements Details	The space has been vacant for over the past 50 years so we will be bringing the building completely up to code, restoring as much of the original details as possible and finishing the space in an elegant finish out. All new: electric plumbing HVAC decor lighting
Downtown	West Oak has been serving Denton for over the past 10 years. In that

benefit	time we have grown deep roots in the community. We provide space for all aspects of life to happen, from business meetings, celebrations, dates, job interviews...anything that brings people together and this project will allow us to expand our service to the people of Denton. We also hope invite a large number of guests in as well with the hope they will explore the rest of the Denton square
General or fire suppression application	General grant categories
Facade/building rehab cost	10200
Facade/building rehab requested grant	1408
Awnings cost	0
Awnings requested grant	0
Signs cost	0
Signs requested grant	0
Impact fees cost	18300
Impact fees requested grant	2527
Utility upgrades cost	158130
Utility upgrades requested grant	21833
Interior/code improvements cost	175502
Interior/code improvements requested grant	24232
Fire suppression system cost	

Fire suppression system requested grant	
Total cost (submission)	362132
Total cost (Smartsheet)	362132
Total grant request (submission)	50000
Total grant request (Smartsheet)	50000
Message Details	

Changes made by web-form@smartsheet.com

You are receiving this email because you are subscribed to a workflow "New application notification" (ID# 6133402949707652) on sheet DRG App Data
Exclude your changes from all notifications | Unsubscribe
Powered by Smartsheet Inc. | Privacy Policy | Report Abuse/Spam

DOWNTOWN REINVESTMENT GRANT AGREEMENT FORM

Please complete and return with the Downtown Reinvestment Grant Application to the Economic Development office, 401 N. Elm St., Denton, Texas. If you have any questions, please contact the Economic Development Department at 940- 349-7776.

I have met with a representative from the Economic Development Department, and I have read and fully understand the Downtown Reinvestment Grant procedures established by the Denton City Council. I intend to use this grant program for the aforementioned renovation projects to advance the efforts of revitalization and historic preservation of Denton's historic downtown. *I have not received, nor will I receive insurance monies for this revitalization project.*

I understand that if I am awarded a Downtown Reinvestment Grant by the City of Denton, any deviation from the approved project may result in the partial or total withdrawal of the grant. (If I am awarded a reinvestment grant for facade, awning or sign work and the facade, sign or awning is altered for any reason within **one (1) year** from construction, I may be required to reimburse the City of Denton immediately for the full amount of the grant.)

West Oak Coffee Bar

Business/Organization Name

Matthew Fisher 9/4/25

Applicant's Signature *Printed Name* *Date*

Melinda McBride 9/5/25

Building Owner's Signature (if different from applicant) *Printed Name* *Date*

This section is to be completed by Economic Development staff.

Date considered by DEDC *Recommendation* *Staff Signature*

Date considered by TIRZ #1 Board *Recommendation* *Staff Signature*

Date considered by City Council *Approval* *Staff Signature*

Planning Division | Development Services
401 N Elm St., Denton, TX 76201 • (940) 349-8532

November 4, 2025

Mattea Minor
West Oak Coffee Bar
114 W Oak Street
Denton, TX 76201

RE: 114 W Oak Street –Restoring Original Window Openings

Dear Ms. Minor:

Pursuant to Section 4.10.7 of the Denton Development Code,

Historic Preservation Standards

1. *Existing window openings must remain and must not be filled in or covered over.*

Per staff's review of the material provided, and per Section 4.10.7 above, a Certificate of Design Consistency (DCC) is approved for the restoration of the original window openings at 114 W Oak Street. The scope of work is further shown in **Exhibit A**. Please note that any work that deviates from the work proposed in **Exhibit A** will require a new DDC.

Please use this approval letter as a record of staff's review. If you have any questions or require additional information, please contact me at (940) 349-8532 or via email at cameron.robertson@cityofdenton.com.

Sincerely,

Cameron Robertson

Cameron Robertson, AICP
Historic Preservation Officer

Exhibit A

Existing Conditions



Proposed

- Place Pella Impervia Fixed Frame (Picture) Windows in the presently enclosed, boarded up window openings.
- Will provide a stationary view and let in natural light into the second-story without being operable.
- Note: Window specs available upon request

Product Selection Guide
- Size and Performance Data F-FFDS-2
- Features and Options F-FFDS-3

Glazing Performance
- Dual-Pane F-FFDS-4
- Dual-Pane Laminated for Sound F-FFDS-17
- Dual-Pane Impact-Resistant Laminated F-FFDS-19
- Triple-Pane F-FFDS-21

Grille Types F-FFDS-25
Special Size Charts F-FFDS-26
Composite Configurations F-FFDS-27
Impact-Resistant Certifications and Approvals F-FFDS-28
Detailed Product Descriptions F-FFDS-29
Unit Sections
- Dual-Pane Single Units F-FFDS-31
- Dual-Pane Composites F-FFDS-32
- Triple-Pane Single Units F-FFDS-33
- Triple-Pane Composites F-FFDS-34
- Impact-Resistant Laminated Glass Single Units F-FFDS-35

Document Navigation Tips:

Items listed in the table of contents above are active links that will take you to the corresponding page.

The Pella logo on each page is a link back to this table of contents.

Bookmarks are also included in this PDF document and are available as an additional navigation option.

Supporting documents for this product:

Test Reports:
https://media.pella.com/professional/adm/CertificationReports/Test_Reports_IMP.pdf?utm_source=pdfdoc

CSI Specs (readable using Microsft Word or other text editing application):
https://media.pella.com/professional/adm/Fiberglass-CSI_Specs/08572_FF.rtf?utm_source=pdfdoc

AIA Masterspec (readable using Microsft Word or other text editing application):
https://media.pella.com/professional/adm/Fiberglass-CSI_Specs/085413_fl.doc?utm_source=pdfdoc

Detailed Product Description (readable using Microsft Word or other text editing application):
https://media.pella.com/professional/adm/Fiberglass/F2-FFDS.rtf?utm_source=pdfdoc

CAD cross sections (requires appropriate CAD software to read and use):
https://media.pella.com/professional/adm/Fiberglass/IMP-FF-Detail_D.dwg?utm_source=pdfdoc

3D & BIM (requires appropriate software to read and use):
https://media.pella.com/professional/adm/RevitFiles/Imp-Revit/Window-Fixed-Pella-Impervia-Block_Frame.zip?utm_source=pdfdoc

Sketchup (requires appropriate software to read and use):
https://media.pella.com/professional/adm/Fiberglass/PellaSKP_Impervia_Fixed_Frame.zip?utm_source=pdfdoc

Combination Recommendations:
https://media.pella.com/professional/adm/Fiberglass/F2_Combinations.pdf?utm_source=pdfdoc

Installation Details:
https://media.pella.com/professional/adm/Fiberglass/Pella-Impervia_InstallationDetails.pdf?utm_source=pdfdoc

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The information published in this document is believed to be accurate at the time of publication. However, because we are constantly working to improve our products, specifications are subject to change without notice. Consult your local Pella representative for up-to-date product information.

Size and Performance Data

	Standard
Sizes	
Special Sizes	●
Performance[1]	
Meets or Exceeds AAMA/WDMA Ratings	FW - CW +50 / -55 Hallmark Certified
Air Infiltration (cfm/ft² of frame @ 1.57 psf wind pressure)	0.05
Water Resistance	7.5 psf
Design Pressure	30 - 50 psf
Products with Impact-Resistant Laminated Glass	FW - LC +50 / -55 Missle C, Windzone 2 Hallmark Certified
Other Performance Criteria	
Forced Entry Resistance Level (Minimum Security Grade)[2]	40

Sound Transmission Class and Outdoor-Indoor Transmission Class

Frame Size Tested[3]	Glazing System				STC Rating	OITC Rating
	Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness	Third Pane Thickness		
Fixed Frame Direct Set						
47-1/2" x 59-1/2"	1"	3mm	3mm	—	28	23
47-1/2" x 59-1/2"	1"	4mm	4mm	—	30	24
47-1/2" x 59-1/2"	1"	5mm	5mm	—	31	25
47-1/2" x 59-1/2"	1"	6mm	6mm	—	32	27
47-1/2" x 59-1/2"	1"	5mm	3mm	—	31	27
47-1/2" x 59-1/2"	1"	4mm	6mm	—	33	28
47-1/2" x 59-1/2"	1"	4mm	7mm Laminated	—	33	28
47-1/2" x 59-1/2"	1"	5mm	10mm Laminated	—	36	31
47-1/2" x 59-1/2"	1-1/4"	3mm	3mm	3mm	28	22
47-1/2" x 59-1/2"	1-1/4"	4mm	4mm	4mm	30	25
47-1/2" x 59-1/2"	1-1/4"	5mm	5mm	5mm	31	26
47-1/2" x 59-1/2"	1-1/4"	6mm	6mm	6mm	34	28

S = Standard; O = Optional

(1) See Design Data pages in this section for specific product performance class and grade values.

(2) The higher the level, the greater the product's ability to resist forced entry.

(3) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.

All sizes and glass types are tested for air/water/structural and impact-resistance.

	Block Frame
Glazing	
Glazing Type	
Dual-pane Insulating Glass	S
Triple-pane Insulating Glass	O
Insulated Glass Options / Low-E Types	
Clear Insulating Glass (no Low-E coating)	S
Advanced Low-E Insulating Glass	O
SunDefense™ Low-E Insulating Glass	O
SunDefense+ Low-E Insulating Glass	O
AdvancedComfort Low-E Insulating Glass	O
NaturalSun Low-E Insulating Glass	O
NaturalSun+ Low-E Insulating Glass	O
Additional Glass Options	
Annealed Glass	S
Tempered Glass	O
Impact-Resistant Laminated Glass	O
Noise reduction glass (5/3mm, 4/6mm combinations)	O
Noise reduction laminated glass (4/7mm, 5/10mm non-impact)	O
Tinted glass (Bronze, Gray, Green) Advanced Low-E	O
Obscure Glass[1]	O
Spandrel Glass	O
Gas Fill / High Altitude	
Argon	S
High Altitude	O
High Altitude with argon	O
Exterior / Interior Factory Pre-finish Colors	
Powder-Coat White	S
Powder-Coat Brown, Black, Tan or Morning Sky Gray	O
Powder-Coat Dual-color (Brown, Black, Tan or Morning Sky Gray exterior with White interior)	O
Grilles	
Grilles-Between-the-Glass	
Traditional, Prairie, Top Row	O
Applied Grilles	
Equally Divided, Unequally Divided and Top Row	O

S = Standard; O = Optional

(1) Contact your local Pella sales representative for current offering.

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed										N	NC	SC	S		CA
1"	Clear IG	PEL-N-257-00001-00001	3	3	air	0.46	0.68	0.72	45						
	with grilles-between-the-glass	PEL-N-257-00001-00002				0.46	0.61	0.64	45						
	with applied grilles	PEL-N-257-00001-00005				0.46	0.55	0.57	45						
1"	Clear IG	PEL-N-257-00003-00001	4	4	air	0.45	0.66	0.71	45						
	with grilles-between-the-glass	PEL-N-257-00003-00002				0.45	0.60	0.64	45						
	with applied grilles	PEL-N-257-00003-00005				0.45	0.53	0.57	45						
1"	Clear IG	PEL-N-257-00005-00001	5	5	air	0.45	0.65	0.71	45						
	with grilles-between-the-glass	PEL-N-257-00005-00002				0.45	0.59	0.63	45						
	with applied grilles	PEL-N-257-00005-00005				0.45	0.53	0.56	45						
1"	Clear IG	PEL-N-257-00007-00001	6	6	air	0.45	0.63	0.70	44						
	with grilles-between-the-glass	PEL-N-257-00007-00002				0.45	0.57	0.62	44						
	with applied grilles	PEL-N-257-00007-00005				0.45	0.51	0.56	44						
1"	Advanced Low-E IG	PEL-N-257-00014-00001	3	3	argon	0.27	0.32	0.61	58						
	with grilles-between-the-glass	PEL-N-257-00014-00002				0.27	0.29	0.55	58						
	with applied grilles	PEL-N-257-00014-00005				0.27	0.26	0.49	58						
1"	Advanced Low-E IG	PEL-N-257-00016-00001	4	4	argon	0.27	0.32	0.60	60						
	with grilles-between-the-glass	PEL-N-257-00016-00002				0.27	0.29	0.54	60						
	with applied grilles	PEL-N-257-00016-00005				0.27	0.26	0.48	60						
1"	Advanced Low-E IG	PEL-N-257-00018-00001	5	5	argon	0.27	0.31	0.60	60						
	with grilles-between-the-glass	PEL-N-257-00018-00002				0.27	0.29	0.54	60						
	with applied grilles	PEL-N-257-00018-00005				0.27	0.26	0.48	60						
1"	Advanced Low-E IG	PEL-N-257-00020-00001	6	6	argon	0.26	0.31	0.59	59						
	with grilles-between-the-glass	PEL-N-257-00020-00002				0.26	0.28	0.53	59						
	with applied grilles	PEL-N-257-00020-00005				0.26	0.26	0.47	59						
1"	SunDefense™ IG	PEL-N-257-00044-00001	3	3	argon	0.27	0.24	0.56	59						
	with grilles-between-the-glass	PEL-N-257-00044-00002				0.27	0.22	0.51	59			SC	S		
	with applied grilles	PEL-N-257-00044-00005				0.27	0.20	0.45	59			SC	S		
1"	SunDefense™ IG	PEL-N-257-00046-00001	4	4	argon	0.26	0.24	0.56	61						
	with grilles-between-the-glass	PEL-N-257-00046-00002				0.26	0.22	0.50	61			SC	S		
	with applied grilles	PEL-N-257-00046-00005				0.26	0.20	0.45	61			SC	S		
1"	SunDefense™ IG	PEL-N-257-00048-00001	5	5	argon	0.26	0.24	0.55	60						
	with grilles-between-the-glass	PEL-N-257-00048-00002				0.26	0.22	0.50	60			SC	S		
	with applied grilles	PEL-N-257-00048-00005				0.26	0.20	0.44	60			SC	S		
1"	SunDefense™ IG	PEL-N-257-00050-00001	6	6	argon	0.26	0.24	0.55	59						
	with grilles-between-the-glass	PEL-N-257-00050-00002				0.26	0.22	0.49	59			SC	S		
	with applied grilles	PEL-N-257-00050-00005				0.26	0.20	0.44	59			SC	S		
1"	SunDefense+ IG	PEL-N-257-02456-00001	3	3	argon	0.22	0.23	0.55	50	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02457-00001				0.22	0.21	0.49	50	N	NC	SC	S		
	with applied grilles	PEL-N-257-02458-00001				0.22	0.19	0.44	50	N	NC	SC	S		
1"	SunDefense+ IG	PEL-N-257-02462-00001	4	4	argon	0.22	0.23	0.55	49	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02463-00001				0.22	0.21	0.49	49	N	NC	SC	S		
	with applied grilles	PEL-N-257-02464-00001				0.22	0.19	0.44	49	N	NC	SC	S		
1"	SunDefense+ IG	PEL-N-257-02480-00001	5	5	argon	0.22	0.23	0.54	49	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02481-00001				0.22	0.21	0.49	49	N	NC	SC	S		
	with applied grilles	PEL-N-257-02482-00001				0.22	0.19	0.43	49	N	NC	SC	S		
1"	SunDefense+ IG	PEL-N-257-02486-00001	6	6	argon	0.22	0.23	0.53	48	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02487-00001				0.22	0.21	0.48	48	N	NC	SC	S		
	with applied grilles	PEL-N-257-02488-00001				0.22	0.19	0.43	48	N	NC	SC	S		

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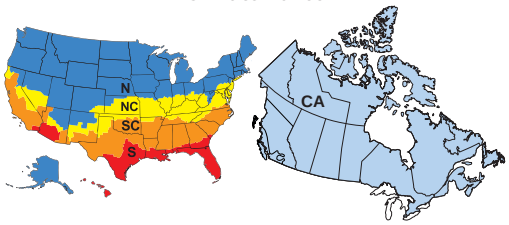
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Climate Zones



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed										N	NC	SC	S		CA
1"	AdvancedComfort Low-E IG	PEL-N-257-00068-00001	3	3	argon	0.22	0.32	0.60	49	N	NC				
	with grilles-between-the-glass	PEL-N-257-00068-00002				0.22	0.29	0.54	49	N	NC				
	with applied grilles	PEL-N-257-00068-00005				0.22	0.26	0.48	49	N	NC				
1"	AdvancedComfort Low-E IG	PEL-N-257-00070-00001	4	4	argon	0.22	0.31	0.59	48	N	NC				
	with grilles-between-the-glass	PEL-N-257-00070-00002				0.22	0.28	0.53	48	N	NC				
	with applied grilles	PEL-N-257-00070-00005				0.22	0.25	0.47	48	N	NC				
1"	AdvancedComfort Low-E IG	PEL-N-257-00072-00001	5	5	argon	0.22	0.31	0.58	48	N	NC				
	with grilles-between-the-glass	PEL-N-257-00072-00002				0.22	0.28	0.52	48	N	NC				
	with applied grilles	PEL-N-257-00072-00005				0.22	0.25	0.47	48	N	NC				
1"	AdvancedComfort Low-E IG	PEL-N-257-00074-00001	6	6	argon	0.22	0.30	0.58	47	N	NC				
	with grilles-between-the-glass	PEL-N-257-00074-00002				0.22	0.28	0.52	47	N	NC				
	with applied grilles	PEL-N-257-00074-00005				0.22	0.25	0.46	47	N	NC				
1"	NaturalSun Low-E IG	PEL-N-257-00056-00001	3	3	argon	0.28	0.60	0.69	58					40	CA
	with grilles-between-the-glass	PEL-N-257-00056-00002				0.28	0.54	0.62	58					36	CA
	with applied grilles	PEL-N-257-00056-00005				0.28	0.49	0.55	58						
1"	NaturalSun Low-E IG	PEL-N-257-00058-00001	4	4	argon	0.28	0.59	0.69	60					39	CA
	with grilles-between-the-glass	PEL-N-257-00058-00002				0.28	0.53	0.61	60					36	CA
	with applied grilles	PEL-N-257-00058-00005				0.28	0.47	0.55	60						
1"	NaturalSun Low-E IG	PEL-N-257-00060-00001	5	5	argon	0.28	0.58	0.68	59					38	CA
	with grilles-between-the-glass	PEL-N-257-00060-00002				0.28	0.52	0.61	59					35	CA
	with applied grilles	PEL-N-257-00060-00005				0.28	0.47	0.54	59						
1"	NaturalSun Low-E IG	PEL-N-257-00062-00001	6	6	argon	0.27	0.56	0.67	59					39	CA
	with grilles-between-the-glass	PEL-N-257-00062-00002				0.27	0.51	0.60	59					36	CA
	with applied grilles	PEL-N-257-00062-00005				0.27	0.45	0.54	59						
1"	NaturalSun+ Low-E IG	PEL-N-257-02420-00001	3	3	argon	0.23	0.55	0.67	48	N				43	CA
	with grilles-between-the-glass	PEL-N-257-02421-00001				0.23	0.49	0.61	48	N				39	CA
	with applied grilles	PEL-N-257-02422-00001				0.23	0.44	0.54	48	N				37	CA
1"	NaturalSun+ Low-E IG	PEL-N-257-02426-00001	4	4	argon	0.23	0.53	0.67	48	N				42	CA
	with grilles-between-the-glass	PEL-N-257-02427-00001				0.23	0.48	0.60	48	N				39	CA
	with applied grilles	PEL-N-257-02428-00001				0.23	0.43	0.54	48	N				36	CA
1"	NaturalSun+ Low-E IG	PEL-N-257-02444-00001	5	5	argon	0.23	0.52	0.66	47	N				41	CA
	with grilles-between-the-glass	PEL-N-257-02445-00001				0.23	0.47	0.59	47	N				38	CA
	with applied grilles	PEL-N-257-02446-00001				0.23	0.43	0.53	47	N				36	CA
1"	NaturalSun+ Low-E IG	PEL-N-257-02450-00001	6	6	argon	0.23	0.51	0.65	47	N				41	CA
	with grilles-between-the-glass	PEL-N-257-02451-00001				0.23	0.46	0.59	47	N				38	CA
	with applied grilles	PEL-N-257-02452-00001				0.23	0.41	0.52	47	N				35	CA

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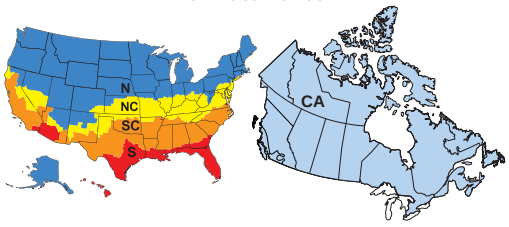
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — with Foam Insulation										N	NC	SC	S		CA
1"	Advanced Low-E IG	PEL-N-257-00206-00001	3	3	argon	0.27	0.32	0.61	59						
	with grilles-between-the-glass	PEL-N-257-00206-00002				0.27	0.29	0.55	59						
	with applied grilles	PEL-N-257-00206-00005				0.27	0.26	0.49	59						
1"	Advanced Low-E IG	PEL-N-257-00208-00001	4	4	argon	0.26	0.32	0.60	61						
	with grilles-between-the-glass	PEL-N-257-00208-00002				0.26	0.29	0.54	61						
	with applied grilles	PEL-N-257-00208-00005				0.26	0.26	0.48	61						
1"	Advanced Low-E IG	PEL-N-257-00210-00001	5	5	argon	0.26	0.31	0.60	60						
	with grilles-between-the-glass	PEL-N-257-00210-00002				0.26	0.29	0.54	60						
	with applied grilles	PEL-N-257-00210-00005				0.26	0.26	0.48	60						
1"	Advanced Low-E IG	PEL-N-257-00212-00001	6	6	argon	0.26	0.31	0.59	59						
	with grilles-between-the-glass	PEL-N-257-00212-00002				0.26	0.28	0.53	59						
	with applied grilles	PEL-N-257-00212-00005				0.26	0.26	0.47	59						
1"	SunDefense IG	PEL-N-257-00236-00001	3	3	argon	0.26	0.24	0.56	59						
	with grilles-between-the-glass	PEL-N-257-00236-00002				0.26	0.22	0.51	59			SC	S		
	with applied grilles	PEL-N-257-00236-00005				0.26	0.20	0.45	59			SC	S		
1"	SunDefense IG	PEL-N-257-00238-00001	4	4	argon	0.26	0.24	0.56	61						
	with grilles-between-the-glass	PEL-N-257-00238-00002				0.26	0.22	0.50	61			SC	S		
	with applied grilles	PEL-N-257-00238-00005				0.26	0.20	0.45	61			SC	S		
1"	SunDefense IG	PEL-N-257-00240-00001	5	5	argon	0.25	0.24	0.55	60		NC				
	with grilles-between-the-glass	PEL-N-257-00240-00002				0.25	0.22	0.50	60		NC	SC	S		
	with applied grilles	PEL-N-257-00240-00005				0.25	0.20	0.44	60		NC	SC	S		
1"	SunDefense IG	PEL-N-257-00242-00001	6	6	argon	0.25	0.24	0.55	60		NC				
	with grilles-between-the-glass	PEL-N-257-00242-00002				0.25	0.22	0.49	60		NC	SC	S		
	with applied grilles	PEL-N-257-00242-00005				0.25	0.20	0.44	60		NC	SC	S		
1"	SunDefense+ IG	PEL-N-257-02564-00001	3	3	argon	0.21	0.23	0.55	50	N	NC	SC	S	27	CA
	with grilles-between-the-glass	PEL-N-257-02565-00001				0.21	0.21	0.49	50	N	NC	SC	S	26	CA
	with applied grilles	PEL-N-257-02566-00001				0.21	0.19	0.44	50	N	NC	SC	S	25	CA
1"	SunDefense+ IG	PEL-N-257-02570-00001	4	4	argon	0.21	0.23	0.55	50	N	NC	SC	S	27	CA
	with grilles-between-the-glass	PEL-N-257-02571-00001				0.21	0.21	0.49	50	N	NC	SC	S	26	CA
	with applied grilles	PEL-N-257-02572-00001				0.21	0.19	0.44	50	N	NC	SC	S	25	CA
1"	SunDefense+ IG	PEL-N-257-02588-00001	5	5	argon	0.21	0.23	0.54	49	N	NC	SC	S	27	CA
	with grilles-between-the-glass	PEL-N-257-02589-00001				0.21	0.21	0.49	49	N	NC	SC	S	26	CA
	with applied grilles	PEL-N-257-02590-00001				0.21	0.19	0.43	49	N	NC	SC	S	25	CA
1"	SunDefense+ IG	PEL-N-257-02594-00001	6	6	argon	0.21	0.23	0.53	48	N	NC	SC	S	27	CA
	with grilles-between-the-glass	PEL-N-257-02595-00001				0.21	0.21	0.48	48	N	NC	SC	S	26	CA
	with applied grilles	PEL-N-257-02596-00001				0.21	0.19	0.43	48	N	NC	SC	S	25	CA
1"	AdvancedComfort Low-E IG	PEL-N-257-00260-00001	3	3	argon	0.22	0.32	0.60	49	N	NC				
	with grilles-between-the-glass	PEL-N-257-00260-00002				0.22	0.29	0.54	49	N	NC				
	with applied grilles	PEL-N-257-00260-00005				0.22	0.26	0.48	49	N	NC				
1"	AdvancedComfort Low-E IG	PEL-N-257-00262-00001	4	4	argon	0.22	0.31	0.59	49	N	NC				
	with grilles-between-the-glass	PEL-N-257-00262-00002				0.22	0.28	0.53	49	N	NC				
	with applied grilles	PEL-N-257-00262-00005				0.22	0.25	0.47	49	N	NC				
1"	AdvancedComfort Low-E IG	PEL-N-257-00264-00001	5	5	argon	0.21	0.31	0.58	48	N	NC			32	CA
	with grilles-between-the-glass	PEL-N-257-00264-00002				0.21	0.28	0.52	48	N	NC			30	CA
	with applied grilles	PEL-N-257-00264-00005				0.21	0.25	0.47	48	N	NC			28	CA
1"	AdvancedComfort Low-E IG	PEL-N-257-00266-00001	6	6	argon	0.21	0.30	0.58	47	N	NC			31	CA
	with grilles-between-the-glass	PEL-N-257-00266-00002				0.21	0.28	0.52	47	N	NC			30	CA
	with applied grilles	PEL-N-257-00266-00005				0.21	0.25	0.46	47	N	NC			28	CA

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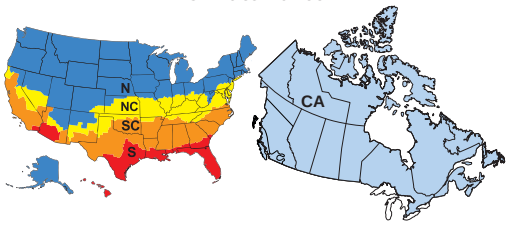
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Climate Zones



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — with Foam Insulation										N	NC	SC	S		CA
1"	NaturalSun Low-E IG	PEL-N-257-00248-00001	3	3	argon	0.28	0.60	0.69	58					40	CA
	with grilles-between-the-glass	PEL-N-257-00248-00002				0.28	0.54	0.62	58					36	CA
	with applied grilles	PEL-N-257-00248-00005				0.28	0.49	0.55	58						
1"	NaturalSun Low-E IG	PEL-N-257-00250-00001	4	4	argon	0.27	0.59	0.69	60					40	CA
	with grilles-between-the-glass	PEL-N-257-00250-00002				0.27	0.53	0.61	60					37	CA
	with applied grilles	PEL-N-257-00250-00005				0.27	0.47	0.55	60						
1"	NaturalSun Low-E IG	PEL-N-257-00252-00001	5	5	argon	0.27	0.58	0.68	59					40	CA
	with grilles-between-the-glass	PEL-N-257-00252-00002				0.27	0.52	0.61	59					36	CA
	with applied grilles	PEL-N-257-00252-00005				0.27	0.47	0.54	59						
1"	NaturalSun Low-E IG	PEL-N-257-00254-00001	6	6	argon	0.27	0.56	0.67	59					39	CA
	with grilles-between-the-glass	PEL-N-257-00254-00002				0.27	0.51	0.60	59					36	CA
	with applied grilles	PEL-N-257-00254-00005				0.27	0.45	0.54	59						
1"	NaturalSun+ Low-E IG	PEL-N-257-02528-00001	3	3	argon	0.23	0.55	0.67	49	N				43	CA
	with grilles-between-the-glass	PEL-N-257-02529-00001				0.23	0.49	0.61	49	N				39	CA
	with applied grilles	PEL-N-257-02530-00001				0.23	0.44	0.54	49	N				37	CA
1"	NaturalSun+ Low-E IG	PEL-N-257-02534-00001	4	4	argon	0.22	0.53	0.67	48	N				43	CA
	with grilles-between-the-glass	PEL-N-257-02535-00001				0.22	0.48	0.60	48	N				40	CA
	with applied grilles	PEL-N-257-02536-00001				0.22	0.43	0.54	48	N				37	CA
1"	NaturalSun+ Low-E IG	PEL-N-257-02552-00001	5	5	argon	0.22	0.52	0.66	48	N				42	CA
	with grilles-between-the-glass	PEL-N-257-02553-00001				0.22	0.47	0.59	48	N				40	CA
	with applied grilles	PEL-N-257-02554-00001				0.22	0.43	0.53	48	N				37	CA
1"	NaturalSun+ Low-E IG	PEL-N-257-02558-00001	6	6	argon	0.22	0.51	0.65	47	N				42	CA
	with grilles-between-the-glass	PEL-N-257-02559-00001				0.22	0.46	0.59	47	N				39	CA
	with applied grilles	PEL-N-257-02560-00001				0.22	0.41	0.52	47	N				36	CA

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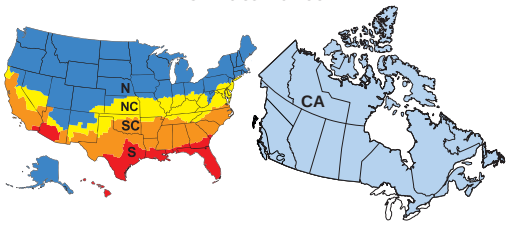
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — with High Altitude Glazing										N	NC	SC	S		CA
1"	(HA) Advanced Low-E IG	PEL-N-257-00013-00001	3	3	air	0.31	0.32	0.61	57						
	with grilles-between-the-glass	PEL-N-257-00013-00002				0.31	0.29	0.55	57						
	with applied grilles	PEL-N-257-00013-00005				0.31	0.27	0.49	57						
1"	(HA) Advanced Low-E IG	PEL-N-257-00015-00001	4	4	air	0.31	0.32	0.60	57						
	with grilles-between-the-glass	PEL-N-257-00015-00002				0.31	0.29	0.54	57						
	with applied grilles	PEL-N-257-00015-00005				0.31	0.26	0.48	57						
1"	(HA) Advanced Low-E IG	PEL-N-257-00017-00001	5	5	air	0.30	0.32	0.60	56						
	with grilles-between-the-glass	PEL-N-257-00017-00002				0.30	0.29	0.54	56						
	with applied grilles	PEL-N-257-00017-00005				0.30	0.26	0.48	56						
1"	(HA) Advanced Low-E IG	PEL-N-257-00019-00001	6	6	air	0.30	0.32	0.59	56						
	with grilles-between-the-glass	PEL-N-257-00019-00002				0.30	0.29	0.53	56						
	with applied grilles	PEL-N-257-00019-00005				0.30	0.26	0.47	56						
1"	(HA) SunDefense IG	PEL-N-257-00043-00001	3	3	air	0.31	0.24	0.56	57						
	with grilles-between-the-glass	PEL-N-257-00043-00002				0.31	0.22	0.51	57				S		
	with applied grilles	PEL-N-257-00043-00005				0.31	0.20	0.45	57				S		
1"	(HA) SunDefense IG	PEL-N-257-00045-00001	4	4	air	0.30	0.24	0.56	57						
	with grilles-between-the-glass	PEL-N-257-00045-00002				0.30	0.22	0.50	57				S		
	with applied grilles	PEL-N-257-00045-00005				0.30	0.20	0.45	57				S		
1"	(HA) SunDefense IG	PEL-N-257-00047-00001	5	5	air	0.30	0.24	0.55	56						
	with grilles-between-the-glass	PEL-N-257-00047-00002				0.30	0.22	0.50	56				S		
	with applied grilles	PEL-N-257-00047-00005				0.30	0.20	0.44	56				S		
1"	(HA) SunDefense IG	PEL-N-257-00049-00001	6	6	air	0.30	0.24	0.55	56						
	with grilles-between-the-glass	PEL-N-257-00049-00002				0.30	0.22	0.49	56				S		
	with applied grilles	PEL-N-257-00049-00005				0.30	0.20	0.44	56				S		
1"	(HA) SunDefense+ IG	PEL-N-257-02453-00001	3	3	air	0.25	0.23	0.55	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02454-00001				0.25	0.21	0.49	46		NC	SC	S		
	with applied grilles	PEL-N-257-02455-00001				0.25	0.19	0.44	46		NC	SC	S		
1"	(HA) SunDefense+ IG	PEL-N-257-02459-00001	4	4	air	0.25	0.23	0.55	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02460-00001				0.25	0.21	0.49	46		NC	SC	S		
	with applied grilles	PEL-N-257-02461-00001				0.25	0.19	0.44	46		NC	SC	S		
1"	(HA) SunDefense+ IG	PEL-N-257-02477-00001	5	5	air	0.24	0.23	0.54	45		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02478-00001				0.24	0.21	0.49	45		NC	SC	S		
	with applied grilles	PEL-N-257-02479-00001				0.24	0.19	0.43	45		NC	SC	S		
1"	(HA) SunDefense+ IG	PEL-N-257-02483-00001	6	6	air	0.24	0.23	0.53	45		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02484-00001				0.24	0.21	0.48	45		NC	SC	S		
	with applied grilles	PEL-N-257-02485-00001				0.24	0.19	0.43	45		NC	SC	S		
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00067-00001	3	3	air	0.25	0.32	0.60	45		NC				
	with grilles-between-the-glass	PEL-N-257-00067-00002				0.25	0.29	0.54	45		NC				
	with applied grilles	PEL-N-257-00067-00005				0.25	0.26	0.48	45		NC				
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00069-00001	4	4	air	0.25	0.31	0.59	45		NC				
	with grilles-between-the-glass	PEL-N-257-00069-00002				0.25	0.28	0.53	45		NC				
	with applied grilles	PEL-N-257-00069-00005				0.25	0.25	0.47	45		NC				
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00071-00001	5	5	air	0.24	0.31	0.58	44		NC				
	with grilles-between-the-glass	PEL-N-257-00071-00002				0.24	0.28	0.52	44		NC				
	with applied grilles	PEL-N-257-00071-00005				0.24	0.25	0.47	44		NC				
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00073-00001	6	6	air	0.24	0.31	0.58	44		NC				
	with grilles-between-the-glass	PEL-N-257-00073-00002				0.24	0.28	0.52	44		NC				
	with applied grilles	PEL-N-257-00073-00005				0.24	0.25	0.46	44		NC				

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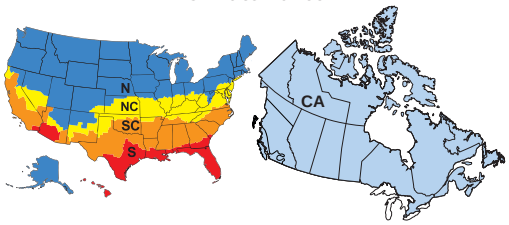
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Climate Zones



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
										U. S.				Canada	
			Ext.	Int.						Zone				ER	Zone
Fixed — with High Altitude Glazing										N	NC	SC	S		CA
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00055-00001	3	3	air	0.32	0.60	0.69	57					35	CA
	with grilles-between-the-glass	PEL-N-257-00055-00002				0.32	0.54	0.62	57						
	with applied grilles	PEL-N-257-00055-00005				0.32	0.49	0.55	57						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00057-00001	4	4	air	0.32	0.58	0.69	56						
	with grilles-between-the-glass	PEL-N-257-00057-00002				0.32	0.53	0.61	56						
	with applied grilles	PEL-N-257-00057-00005				0.32	0.47	0.55	56						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00059-00001	5	5	air	0.31	0.58	0.68	56					35	CA
	with grilles-between-the-glass	PEL-N-257-00059-00002				0.31	0.52	0.61	56						
	with applied grilles	PEL-N-257-00059-00005				0.31	0.47	0.54	56						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00061-00001	6	6	air	0.31	0.56	0.67	55					34	CA
	with grilles-between-the-glass	PEL-N-257-00061-00002				0.31	0.50	0.60	55						
	with applied grilles	PEL-N-257-00061-00005				0.31	0.45	0.54	55						
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02417-00001	3	3	air	0.26	0.55	0.67	39	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02418-00001				0.26	0.49	0.61	39	N				36	CA
	with applied grilles	PEL-N-257-02419-00001				0.26	0.44	0.54	39	N					
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02423-00001	4	4	air	0.25	0.53	0.67	45	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02424-00001				0.25	0.48	0.60	45	N				36	CA
	with applied grilles	PEL-N-257-02425-00001				0.25	0.43	0.54	45	N				34	CA
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02441-00001	5	5	air	0.25	0.52	0.66	44	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02442-00001				0.25	0.47	0.59	44	N				36	CA
	with applied grilles	PEL-N-257-02443-00001				0.25	0.42	0.53	44	N					
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02447-00001	6	6	air	0.25	0.50	0.65	44	N				38	CA
	with grilles-between-the-glass	PEL-N-257-02448-00001				0.25	0.46	0.59	44	N				35	CA
	with applied grilles	PEL-N-257-02449-00001				0.25	0.41	0.52	44	N					

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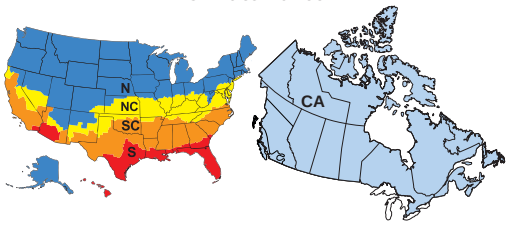
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — with High Altitude Glazing and Foam Insulation										N	NC	SC	S		CA
1"	(HA) Advanced Low-E IG	PEL-N-257-00205-00001	3	3	air	0.31	0.32	0.61	57						
	with grilles-between-the-glass	PEL-N-257-00205-00002				0.31	0.29	0.55	57						
	with applied grilles	PEL-N-257-00205-00005				0.31	0.27	0.49	57						
1"	(HA) Advanced Low-E IG	PEL-N-257-00207-00001	4	4	air	0.30	0.32	0.60	57						
	with grilles-between-the-glass	PEL-N-257-00207-00002				0.30	0.29	0.54	57						
	with applied grilles	PEL-N-257-00207-00005				0.30	0.26	0.48	57						
1"	(HA) Advanced Low-E IG	PEL-N-257-00209-00001	5	5	air	0.30	0.32	0.60	56						
	with grilles-between-the-glass	PEL-N-257-00209-00002				0.30	0.29	0.54	56						
	with applied grilles	PEL-N-257-00209-00005				0.30	0.26	0.48	56						
1"	(HA) Advanced Low-E IG	PEL-N-257-00211-00001	6	6	air	0.30	0.32	0.59	56						
	with grilles-between-the-glass	PEL-N-257-00211-00002				0.30	0.29	0.53	56						
	with applied grilles	PEL-N-257-00211-00005				0.30	0.26	0.47	56						
1"	(HA) SunDefense IG	PEL-N-257-00235-00001	3	3	air	0.30	0.24	0.56	58						
	with grilles-between-the-glass	PEL-N-257-00235-00002				0.30	0.22	0.51	58				S		
	with applied grilles	PEL-N-257-00235-00005				0.30	0.20	0.45	58				S		
1"	(HA) SunDefense IG	PEL-N-257-00237-00001	4	4	air	0.30	0.24	0.56	57						
	with grilles-between-the-glass	PEL-N-257-00237-00002				0.30	0.22	0.50	57				S		
	with applied grilles	PEL-N-257-00237-00005				0.30	0.20	0.45	57				S		
1"	(HA) SunDefense IG	PEL-N-257-00239-00001	5	5	air	0.29	0.24	0.55	57						
	with grilles-between-the-glass	PEL-N-257-00239-00002				0.29	0.22	0.50	57				S		
	with applied grilles	PEL-N-257-00239-00005				0.29	0.20	0.44	57				S		
1"	(HA) SunDefense IG	PEL-N-257-00241-00001	6	6	air	0.29	0.24	0.55	56						
	with grilles-between-the-glass	PEL-N-257-00241-00002				0.29	0.22	0.49	56				S		
	with applied grilles	PEL-N-257-00241-00005				0.29	0.20	0.44	56				S		
1"	(HA) SunDefense+ IG	PEL-N-257-02561-00001	3	3	air	0.24	0.23	0.55	47		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02562-00001				0.24	0.21	0.49	47		NC	SC	S		
	with applied grilles	PEL-N-257-02563-00001				0.24	0.19	0.44	47		NC	SC	S		
1"	(HA) SunDefense+ IG	PEL-N-257-02567-00001	4	4	air	0.24	0.23	0.55	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02568-00001				0.24	0.21	0.49	46		NC	SC	S		
	with applied grilles	PEL-N-257-02569-00001				0.24	0.19	0.44	46		NC	SC	S		
1"	(HA) SunDefense+ IG	PEL-N-257-02585-00001	5	5	air	0.24	0.23	0.54	45		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02586-00001				0.24	0.21	0.49	45		NC	SC	S		
	with applied grilles	PEL-N-257-02587-00001				0.24	0.19	0.43	45		NC	SC	S		
1"	(HA) SunDefense+ IG	PEL-N-257-02591-00001	6	6	air	0.24	0.23	0.53	45		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02592-00001				0.24	0.21	0.48	45		NC	SC	S		
	with applied grilles	PEL-N-257-02593-00001				0.24	0.19	0.43	45		NC	SC	S		
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00259-00001	3	3	air	0.24	0.32	0.60	46		NC				
	with grilles-between-the-glass	PEL-N-257-00259-00002				0.24	0.29	0.54	46		NC				
	with applied grilles	PEL-N-257-00259-00005				0.24	0.26	0.48	46		NC				
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00261-00001	4	4	air	0.24	0.31	0.59	45		NC				
	with grilles-between-the-glass	PEL-N-257-00261-00002				0.24	0.28	0.53	45		NC				
	with applied grilles	PEL-N-257-00261-00005				0.24	0.25	0.47	45		NC				
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00263-00001	5	5	air	0.24	0.31	0.58	45		NC				
	with grilles-between-the-glass	PEL-N-257-00263-00002				0.24	0.28	0.52	45		NC				
	with applied grilles	PEL-N-257-00263-00005				0.24	0.25	0.47	45		NC				
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00265-00001	6	6	air	0.24	0.31	0.58	44		NC				
	with grilles-between-the-glass	PEL-N-257-00265-00002				0.24	0.28	0.52	44		NC				
	with applied grilles	PEL-N-257-00265-00005				0.24	0.25	0.46	44		NC				

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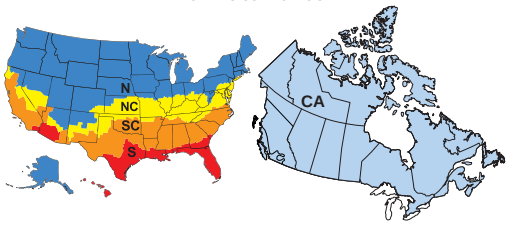
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Climate Zones



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
										U. S.				Canada	
			Ext.	Int.						Zone				ER	Zone
Fixed — with High Altitude Glazing and Foam Insulation										N	NC	SC	S		CA
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00247-00001	3	3	air	0.31	0.60	0.69	57					36	CA
	with grilles-between-the-glass	PEL-N-257-00247-00002				0.31	0.54	0.62	57						
	with applied grilles	PEL-N-257-00247-00005				0.31	0.49	0.55	57						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00249-00001	4	4	air	0.31	0.58	0.69	56					35	CA
	with grilles-between-the-glass	PEL-N-257-00249-00002				0.31	0.53	0.61	56						
	with applied grilles	PEL-N-257-00249-00005				0.31	0.47	0.55	56						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00251-00001	5	5	air	0.31	0.58	0.68	56					35	CA
	with grilles-between-the-glass	PEL-N-257-00251-00002				0.31	0.52	0.61	56						
	with applied grilles	PEL-N-257-00251-00005				0.31	0.47	0.54	56						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00253-00001	6	6	air	0.30	0.56	0.67	55					35	CA
	with grilles-between-the-glass	PEL-N-257-00253-00002				0.30	0.50	0.60	55						
	with applied grilles	PEL-N-257-00253-00005				0.30	0.45	0.54	55						
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02525-00001	3	3	air	0.25	0.55	0.67	39	N				40	CA
	with grilles-between-the-glass	PEL-N-257-02526-00001				0.25	0.49	0.61	39	N				37	CA
	with applied grilles	PEL-N-257-02527-00001				0.25	0.44	0.54	39	N				34	CA
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02531-00001	4	4	air	0.25	0.53	0.67	45	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02532-00001				0.25	0.48	0.60	45	N				36	CA
	with applied grilles	PEL-N-257-02533-00001				0.25	0.43	0.54	45	N				34	CA
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02549-00001	5	5	air	0.25	0.52	0.66	44	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02550-00001				0.25	0.47	0.59	44	N				36	CA
	with applied grilles	PEL-N-257-02551-00001				0.25	0.42	0.53	44	N					
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02555-00001	6	6	air	0.25	0.50	0.65	44	N				38	CA
	with grilles-between-the-glass	PEL-N-257-02556-00001				0.25	0.46	0.59	44	N				35	CA
	with applied grilles	PEL-N-257-02557-00001				0.25	0.41	0.52	44	N					

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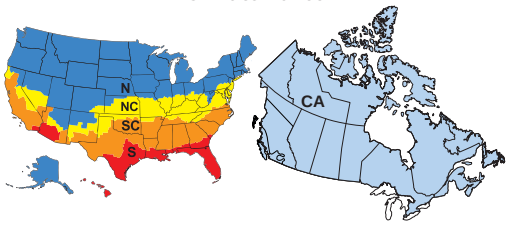
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
										U. S.				Canada	
			Ext.	Int.						Zone				ER	Zone
Fixed — 5mm/3mm Glazing										N	NC	SC	S		CA
1"	Clear IG	PEL-N-257-00009-00001	5	3	air	0.45	0.66	0.71	45						
	with grilles-between-the-glass	PEL-N-257-00009-00002				0.45	0.59	0.64	45						
	with applied grilles	PEL-N-257-00009-00005				0.45	0.53	0.57	45						
1"	Advanced Low-E IG	PEL-N-257-00034-00001	5	3	argon	0.27	0.32	0.60	61						
	with grilles-between-the-glass	PEL-N-257-00034-00002				0.27	0.29	0.54	61						
	with applied grilles	PEL-N-257-00034-00005				0.27	0.26	0.48	61						
1"	SunDefense™ IG	PEL-N-257-00052-00001	5	3	argon	0.26	0.24	0.56	61						
	with grilles-between-the-glass	PEL-N-257-00052-00002				0.26	0.22	0.50	61			SC	S		
	with applied grilles	PEL-N-257-00052-00005				0.26	0.20	0.45	61			SC	S		
1"	SunDefense+ IG	PEL-N-257-02474-00001	5	3	argon	0.22	0.23	0.55	50	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02475-00001				0.22	0.21	0.49	50	N	NC	SC	S		
	with applied grilles	PEL-N-257-02476-00001				0.22	0.19	0.44	50	N	NC	SC	S		
1"	AdvancedComfort Low-E IG	PEL-N-257-00076-00001	5	3	argon	0.22	0.31	0.59	49	N	NC				
	with grilles-between-the-glass	PEL-N-257-00076-00002				0.22	0.28	0.53	49	N	NC				
	with applied grilles	PEL-N-257-00076-00005				0.22	0.25	0.47	49	N	NC				
1"	NaturalSun Low-E IG	PEL-N-257-00064-00001	5	3	argon	0.28	0.58	0.68	60					38	CA
	with grilles-between-the-glass	PEL-N-257-00064-00002				0.28	0.52	0.61	60					35	CA
	with applied grilles	PEL-N-257-00064-00005				0.28	0.47	0.55	60						
1"	NaturalSun+ Low-E IG	PEL-N-257-02438-00001	5	3	argon	0.23	0.53	0.67	48	N				42	CA
	with grilles-between-the-glass	PEL-N-257-02439-00001				0.23	0.48	0.60	48	N				39	CA
	with applied grilles	PEL-N-257-02440-00001				0.23	0.43	0.53	48	N				36	CA
Fixed — 5mm/3mm with Foam Insulation															
1"	Advanced Low-E IG	PEL-N-257-00226-00001	5	3	argon	0.26	0.32	0.60	61						
	with grilles-between-the-glass	PEL-N-257-00226-00002				0.26	0.29	0.54	61						
	with applied grilles	PEL-N-257-00226-00005				0.26	0.26	0.48	61						
1"	SunDefense™ IG	PEL-N-257-00244-00001	5	3	argon	0.26	0.24	0.56	61						
	with grilles-between-the-glass	PEL-N-257-00244-00002				0.26	0.22	0.50	61			SC	S		
	with applied grilles	PEL-N-257-00244-00005				0.26	0.20	0.45	61			SC	S		
1"	SunDefense+ IG	PEL-N-257-02582-00001	5	3	argon	0.21	0.23	0.55	50	N	NC	SC	S	27	CA
	with grilles-between-the-glass	PEL-N-257-02583-00001				0.21	0.21	0.49	50	N	NC	SC	S	26	CA
	with applied grilles	PEL-N-257-02584-00001				0.21	0.19	0.44	50	N	NC	SC	S	25	CA
1"	AdvancedComfort Low-E IG	PEL-N-257-00268-00001	5	3	argon	0.22	0.31	0.59	49	N	NC				
	with grilles-between-the-glass	PEL-N-257-00268-00002				0.22	0.28	0.53	49	N	NC				
	with applied grilles	PEL-N-257-00268-00005				0.22	0.25	0.47	49	N	NC				
1"	NaturalSun Low-E IG	PEL-N-257-00256-00001	5	3	argon	0.27	0.58	0.68	61					40	CA
	with grilles-between-the-glass	PEL-N-257-00256-00002				0.27	0.52	0.61	61					36	CA
	with applied grilles	PEL-N-257-00256-00005				0.27	0.47	0.55	61						
1"	NaturalSun+ Low-E IG	PEL-N-257-02546-00001	5	3	argon	0.22	0.53	0.67	48	N				43	CA
	with grilles-between-the-glass	PEL-N-257-02547-00001				0.22	0.48	0.60	48	N				40	CA
	with applied grilles	PEL-N-257-02548-00001				0.22	0.43	0.53	48	N				37	CA

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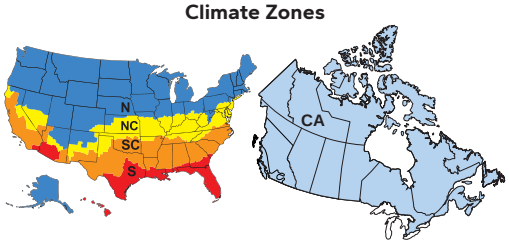
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — 5mm/3mm with High Altitude Glazing										N	NC	SC	S		CA
1"	(HA) Advanced Low-E IG	PEL-N-257-00033-00001	5	3	air	0.31	0.32	0.60	57						
	with grilles-between-the-glass	PEL-N-257-00033-00002				0.31	0.29	0.54	57						
	with applied grilles	PEL-N-257-00033-00005				0.31	0.26	0.48	57						
1"	(HA) SunDefense IG	PEL-N-257-00051-00001	5	3	air	0.30	0.24	0.56	57						
	with grilles-between-the-glass	PEL-N-257-00051-00002				0.30	0.22	0.50	57				S		
	with applied grilles	PEL-N-257-00051-00005				0.30	0.20	0.45	57				S		
1"	(HA) SunDefense+ IG	PEL-N-257-02471-00001	5	3	air	0.25	0.23	0.55	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02472-00001				0.25	0.21	0.49	46		NC	SC	S		
	with applied grilles	PEL-N-257-02473-00001				0.25	0.19	0.44	46		NC	SC	S		
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00075-00001	5	3	air	0.25	0.31	0.59	45		NC				
	with grilles-between-the-glass	PEL-N-257-00075-00002				0.25	0.28	0.53	45		NC				
	with applied grilles	PEL-N-257-00075-00005				0.25	0.25	0.47	45		NC				
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00063-00001	5	3	air	0.32	0.58	0.68	57						
	with grilles-between-the-glass	PEL-N-257-00063-00002				0.32	0.52	0.61	57						
	with applied grilles	PEL-N-257-00063-00005				0.32	0.47	0.55	57						
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02435-00001	5	3	air	0.26	0.53	0.67	45	N				38	CA
	with grilles-between-the-glass	PEL-N-257-02436-00001				0.26	0.47	0.60	45	N				35	CA
	with applied grilles	PEL-N-257-02437-00001				0.26	0.43	0.53	45	N					
Fixed — 5mm/3mm with High Altitude Glazing and Foam Insulation															
1"	(HA) Advanced Low-E IG	PEL-N-257-00225-00001	5	3	air	0.30	0.32	0.60	57						
	with grilles-between-the-glass	PEL-N-257-00225-00002				0.30	0.29	0.54	57						
	with applied grilles	PEL-N-257-00225-00005				0.30	0.26	0.48	57						
1"	(HA) SunDefense IG	PEL-N-257-00243-00001	5	3	air	0.30	0.24	0.56	58						
	with grilles-between-the-glass	PEL-N-257-00243-00002				0.30	0.22	0.50	58				S		
	with applied grilles	PEL-N-257-00243-00005				0.30	0.20	0.45	58				S		
1"	(HA) SunDefense+ IG	PEL-N-257-02579-00001	5	3	air	0.24	0.23	0.55	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02580-00001				0.24	0.21	0.49	46		NC	SC	S		
	with applied grilles	PEL-N-257-02581-00001				0.24	0.19	0.44	46		NC	SC	S		
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00267-00001	5	3	air	0.24	0.31	0.59	45		NC				
	with grilles-between-the-glass	PEL-N-257-00267-00002				0.24	0.28	0.53	45		NC				
	with applied grilles	PEL-N-257-00267-00005				0.24	0.25	0.47	45		NC				
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00255-00001	5	3	air	0.31	0.58	0.68	57					35	CA
	with grilles-between-the-glass	PEL-N-257-00255-00002				0.31	0.52	0.61	57						
	with applied grilles	PEL-N-257-00255-00005				0.31	0.47	0.55	57						
1"	(HA) NaturalSun+ Low-E IG	PEL-N-257-02543-00001	5	3	air	0.25	0.53	0.67	45	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02544-00001				0.25	0.47	0.60	45	N				36	CA
	with applied grilles	PEL-N-257-02545-00001				0.25	0.43	0.53	45	N				34	CA

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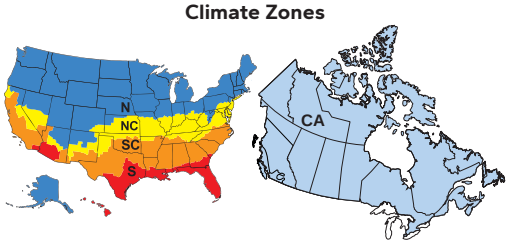
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — 4mm/6mm Glazing										N	NC	SC	S		CA
1"	Clear IG	PEL-N-257-00011-00001	4	6	air	0.45	0.65	0.70	44						
	with grilles-between-the-glass	PEL-N-257-00011-00002				0.45	0.59	0.63	44						
	with applied grilles	PEL-N-257-00011-00005				0.45	0.53	0.56	44						
1"	Advanced Low-E IG	PEL-N-257-00036-00001	4	6	argon	0.26	0.31	0.60	59						
	with grilles-between-the-glass	PEL-N-257-00036-00002				0.26	0.29	0.54	59						
	with applied grilles	PEL-N-257-00036-00005				0.26	0.26	0.48	59						
1"	SunDefense™ IG	PEL-N-257-00054-00001	4	6	argon	0.26	0.24	0.55	60						
	with grilles-between-the-glass	PEL-N-257-00054-00002				0.26	0.22	0.50	60			SC	S		
	with applied grilles	PEL-N-257-00054-00005				0.26	0.20	0.44	60			SC	S		
1"	SunDefense+ IG	PEL-N-257-02468-00001	4	6	argon	0.22	0.23	0.54	48	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02469-00001				0.22	0.21	0.49	48	N	NC	SC	S		
	with applied grilles	PEL-N-257-02470-00001				0.22	0.19	0.43	48	N	NC	SC	S		
1"	AdvancedComfort Low-E IG	PEL-N-257-00078-00001	4	6	argon	0.22	0.31	0.58	48	N	NC				
	with grilles-between-the-glass	PEL-N-257-00078-00002				0.22	0.28	0.52	48	N	NC				
	with applied grilles	PEL-N-257-00078-00005				0.22	0.25	0.47	48	N	NC				
1"	NaturalSun Low-E IG	PEL-N-257-00066-00001	4	6	argon	0.27	0.58	0.68	59					40	CA
	with grilles-between-the-glass	PEL-N-257-00066-00002				0.27	0.53	0.61	59					37	CA
	with applied grilles	PEL-N-257-00066-00005				0.27	0.47	0.54	59						
1"	NaturalSun+ Low-E IG	PEL-N-257-02432-00001	4	6	argon	0.23	0.53	0.66	47	N				42	CA
	with grilles-between-the-glass	PEL-N-257-02433-00001				0.23	0.48	0.59	47	N				39	CA
	with applied grilles	PEL-N-257-02434-00001				0.23	0.43	0.53	47	N				36	CA
Fixed — 4mm/6mm with Foam Insulation															
1"	Advanced Low-E IG	PEL-N-257-00228-00001	4	6	argon	0.26	0.31	0.60	60						
	with grilles-between-the-glass	PEL-N-257-00228-00002				0.26	0.29	0.54	60						
	with applied grilles	PEL-N-257-00228-00005				0.26	0.26	0.48	60						
1"	SunDefense™ IG	PEL-N-257-00246-00001	4	6	argon	0.25	0.24	0.55	60		NC				
	with grilles-between-the-glass	PEL-N-257-00246-00002				0.25	0.22	0.50	60		NC	SC	S		
	with applied grilles	PEL-N-257-00246-00005				0.25	0.20	0.44	60		NC	SC	S		
1"	SunDefense+ IG	PEL-N-257-02576-00001	4	6	argon	0.21	0.23	0.54	49	N	NC	SC	S	27	CA
	with grilles-between-the-glass	PEL-N-257-02577-00001				0.21	0.21	0.49	49	N	NC	SC	S	26	CA
	with applied grilles	PEL-N-257-02578-00001				0.21	0.19	0.43	49	N	NC	SC	S	25	CA
1"	AdvancedComfort Low-E IG	PEL-N-257-00270-00001	4	6	argon	0.21	0.31	0.58	48	N	NC			32	CA
	with grilles-between-the-glass	PEL-N-257-00270-00002				0.21	0.28	0.52	48	N	NC			30	CA
	with applied grilles	PEL-N-257-00270-00005				0.21	0.25	0.47	48	N	NC			28	CA
1"	NaturalSun Low-E IG	PEL-N-257-00258-00001	4	6	argon	0.27	0.58	0.68	59					40	CA
	with grilles-between-the-glass	PEL-N-257-00258-00002				0.27	0.53	0.61	59					37	CA
	with applied grilles	PEL-N-257-00258-00005				0.27	0.47	0.54	59						
1"	NaturalSun+ Low-E IG	PEL-N-257-02540-00001	4	6	argon	0.22	0.53	0.66	48	N				43	CA
	with grilles-between-the-glass	PEL-N-257-02541-00001				0.22	0.48	0.59	48	N				40	CA
	with applied grilles	PEL-N-257-02542-00001				0.22	0.43	0.53	48	N				37	CA

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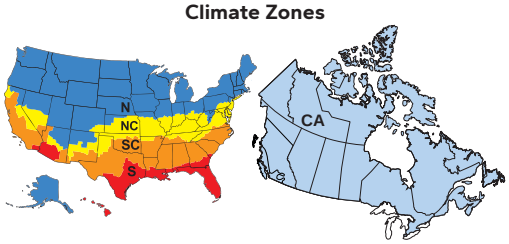
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm) Ext.	Glass (mm) Int.	Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown — U. S. Zone N	NC	SC	S	Canada ER	Canada Zone
Fixed — 4mm/6mm with High Altitude Glazing															
1"	(HA) Advanced Low-E IG	PEL-N-257-00035-00001	4	6	air	0.30	0.32	0.60	56						
	with grilles-between-the-glass	PEL-N-257-00035-00002				0.30	0.29	0.54	56						
	with applied grilles	PEL-N-257-00035-00005				0.30	0.26	0.48	56						
1"	(HA) SunDefense IG	PEL-N-257-00053-00001	4	6	air	0.30	0.24	0.55	56						
	with grilles-between-the-glass	PEL-N-257-00053-00002				0.30	0.22	0.50	56				S		
	with applied grilles	PEL-N-257-00053-00005				0.30	0.20	0.44	56				S		
1"	(HA) SunDefense IG	PEL-N-257-02465-00001	4	6	air	0.24	0.23	0.54	45		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02466-00001				0.24	0.21	0.49	45		NC	SC	S		
	with applied grilles	PEL-N-257-02467-00001				0.24	0.19	0.43	45		NC	SC	S		
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00077-00001	4	6	air	0.24	0.31	0.58	44		NC				
	with grilles-between-the-glass	PEL-N-257-00077-00002				0.24	0.28	0.52	44		NC				
	with applied grilles	PEL-N-257-00077-00005				0.24	0.25	0.47	44		NC				
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00065-00001	4	6	air	0.31	0.58	0.68	55					35	CA
	with grilles-between-the-glass	PEL-N-257-00065-00002				0.31	0.52	0.61	55						
	with applied grilles	PEL-N-257-00065-00005				0.31	0.47	0.54	55						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-02429-00001	4	6	air	0.25	0.52	0.66	44	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02430-00001				0.25	0.47	0.59	44	N				36	CA
	with applied grilles	PEL-N-257-02431-00001				0.25	0.43	0.53	44	N				34	CA
Fixed — 4mm/6mm with High Altitude Glazing and Foam Insulation															
1"	(HA) Advanced Low-E IG	PEL-N-257-00227-00001	4	6	air	0.30	0.32	0.60	56						
	with grilles-between-the-glass	PEL-N-257-00227-00002				0.30	0.29	0.54	56						
	with applied grilles	PEL-N-257-00227-00005				0.30	0.26	0.48	56						
1"	(HA) SunDefense IG	PEL-N-257-00245-00001	4	6	air	0.29	0.24	0.55	57						
	with grilles-between-the-glass	PEL-N-257-00245-00002				0.29	0.22	0.50	57				S		
	with applied grilles	PEL-N-257-00245-00005				0.29	0.20	0.44	57				S		
1"	(HA) SunDefense IG	PEL-N-257-02573-00001	4	6	air	0.24	0.23	0.54	45		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02574-00001				0.24	0.21	0.49	45		NC	SC	S		
	with applied grilles	PEL-N-257-02575-00001				0.24	0.19	0.43	45		NC	SC	S		
1"	(HA) AdvancedComfort Low-E IG	PEL-N-257-00269-00001	4	6	air	0.24	0.31	0.58	44		NC				
	with grilles-between-the-glass	PEL-N-257-00269-00002				0.24	0.28	0.52	44		NC				
	with applied grilles	PEL-N-257-00269-00005				0.24	0.25	0.47	44		NC				
1"	(HA) NaturalSun Low-E IG	PEL-N-257-00257-00001	4	6	air	0.31	0.58	0.68	56					35	CA
	with grilles-between-the-glass	PEL-N-257-00257-00002				0.31	0.52	0.61	56						
	with applied grilles	PEL-N-257-00257-00005				0.31	0.47	0.54	56						
1"	(HA) NaturalSun Low-E IG	PEL-N-257-02537-00001	4	6	air	0.25	0.52	0.66	44	N				39	CA
	with grilles-between-the-glass	PEL-N-257-02538-00001				0.25	0.47	0.59	44	N				36	CA
	with applied grilles	PEL-N-257-02539-00001				0.25	0.43	0.53	44	N				34	CA

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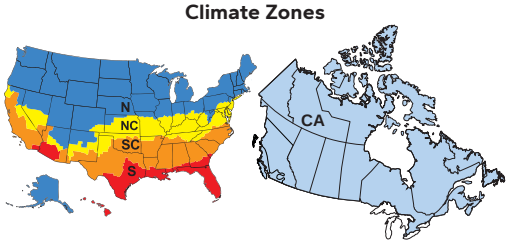
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — Tinted Glazing										N	NC	SC	S		CA
1"	Bronze Advanced Low-E IG	PEL-N-257-00038-00001	5	3	argon	0.27	0.28	0.39	61						
	with grilles-between-the-glass	PEL-N-257-00038-00002				0.27	0.25	0.35	61						
	with applied grilles	PEL-N-257-00038-00005				0.27	0.23	0.32	61			SC	S		
1"	Gray Advanced Low-E IG	PEL-N-257-00040-00001	5	3	argon	0.27	0.26	0.34	61						
	with grilles-between-the-glass	PEL-N-257-00040-00002				0.27	0.24	0.30	61						
	with applied grilles	PEL-N-257-00040-00005				0.27	0.21	0.27	61			SC	S		
1"	Green Advanced Low-E IG	PEL-N-257-00042-00001	5	3	argon	0.27	0.32	0.53	61						
	with grilles-between-the-glass	PEL-N-257-00042-00002				0.27	0.29	0.48	61						
	with applied grilles	PEL-N-257-00042-00005				0.27	0.26	0.43	61						
Fixed — Tinted Glazing with Foam Insulation															
1"	Bronze Advanced Low-E IG	PEL-N-257-00230-00001	5	3	argon	0.26	0.28	0.39	61						
	with grilles-between-the-glass	PEL-N-257-00230-00002				0.26	0.25	0.35	61						
	with applied grilles	PEL-N-257-00230-00005				0.26	0.23	0.32	61			SC	S		
1"	Gray Advanced Low-E IG	PEL-N-257-00232-00001	5	3	argon	0.26	0.26	0.34	61						
	with grilles-between-the-glass	PEL-N-257-00232-00002				0.26	0.24	0.30	61						
	with applied grilles	PEL-N-257-00232-00005				0.26	0.21	0.27	61			SC	S		
1"	Green Advanced Low-E IG	PEL-N-257-00234-00001	5	3	argon	0.26	0.32	0.53	61						
	with grilles-between-the-glass	PEL-N-257-00234-00002				0.26	0.29	0.48	61						
	with applied grilles	PEL-N-257-00234-00005				0.26	0.26	0.43	61						
Fixed — Tinted Glazing with High Altitude Glazing															
1"	Bronze Advanced Low-E IG	PEL-N-257-00037-00001	5	3	air	0.31	0.28	0.39	57						
	with grilles-between-the-glass	PEL-N-257-00037-00002				0.31	0.26	0.35	57						
	with applied grilles	PEL-N-257-00037-00005				0.31	0.23	0.32	57				S		
1"	Gray Advanced Low-E IG	PEL-N-257-00039-00001	5	3	air	0.31	0.26	0.34	57						
	with grilles-between-the-glass	PEL-N-257-00039-00002				0.31	0.24	0.30	57						
	with applied grilles	PEL-N-257-00039-00005				0.31	0.22	0.27	57				S		
1"	Green Advanced Low-E IG	PEL-N-257-00041-00001	5	3	air	0.31	0.32	0.53	57						
	with grilles-between-the-glass	PEL-N-257-00041-00002				0.31	0.29	0.48	57						
	with applied grilles	PEL-N-257-00041-00005				0.31	0.26	0.43	57						
Fixed — Tinted Glazing with Foam Insulation and High Altitude Glazing															
1"	Bronze Advanced Low-E IG	PEL-N-257-00229-00001	5	3	air	0.30	0.28	0.39	58						
	with grilles-between-the-glass	PEL-N-257-00229-00002				0.30	0.26	0.35	58						
	with applied grilles	PEL-N-257-00229-00005				0.30	0.23	0.32	58				S		
1"	Gray Advanced Low-E IG	PEL-N-257-00231-00001	5	3	air	0.30	0.26	0.34	58						
	with grilles-between-the-glass	PEL-N-257-00231-00002				0.30	0.24	0.30	58						
	with applied grilles	PEL-N-257-00231-00005				0.30	0.22	0.27	58				S		
1"	Green Advanced Low-E IG	PEL-N-257-00233-00001	5	3	air	0.30	0.32	0.53	58						
	with grilles-between-the-glass	PEL-N-257-00233-00002				0.30	0.29	0.48	58						
	with applied grilles	PEL-N-257-00233-00005				0.30	0.26	0.43	58						

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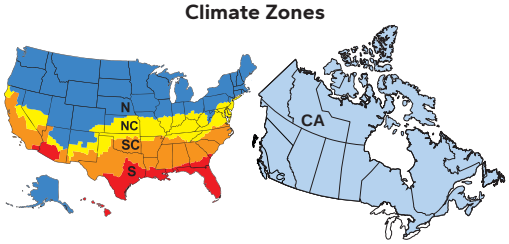
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ENERGY STAR® values are updated to 2023 (version 7) criteria.

The Canadian values shown are based on the updated ENERGY STAR® 2020 initiative.

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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — Laminated for Sound Glazing										N	NC	SC	S		CA
1"	Clear IG	PEL-N-257-00103-00001	4	7	air	0.45	0.64	0.70	45						
	with grilles-between-the-glass	PEL-N-257-00103-00002				0.45	0.58	0.63	45						
	with applied grilles	PEL-N-257-00103-00005				0.45	0.52	0.56	45						
1"	Clear IG	PEL-N-257-00109-00001	5	10	air	0.44	0.62	0.69	44						
	with grilles-between-the-glass	PEL-N-257-00109-00002				0.44	0.56	0.62	44						
	with applied grilles	PEL-N-257-00109-00005				0.44	0.51	0.55	44						
1"	Advanced Low-E IG	PEL-N-257-00108-00001	4	7	argon	0.26	0.31	0.60	60						
	with grilles-between-the-glass	PEL-N-257-00108-00002				0.26	0.28	0.53	60						
	with applied grilles	PEL-N-257-00108-00005				0.26	0.26	0.48	60						
1"	Advanced Low-E IG	PEL-N-257-00114-00001	5	10	argon	0.25	0.31	0.59	59		NC				
	with grilles-between-the-glass	PEL-N-257-00114-00002				0.25	0.28	0.53	59		NC				
	with applied grilles	PEL-N-257-00114-00005				0.25	0.26	0.47	59		NC				
1"	SunDefense™ IG	PEL-N-257-00106-00001	4	7	argon	0.26	0.24	0.55	60						
	with grilles-between-the-glass	PEL-N-257-00106-00002				0.26	0.22	0.50	60			SC	S		
	with applied grilles	PEL-N-257-00106-00005				0.26	0.20	0.44	60			SC	S		
1"	SunDefense™ IG	PEL-N-257-00112-00001	5	10	argon	0.25	0.24	0.54	59		NC				
	with grilles-between-the-glass	PEL-N-257-00112-00002				0.25	0.22	0.49	59		NC	SC	S		
	with applied grilles	PEL-N-257-00112-00005				0.25	0.20	0.43	59		NC	SC	S		
Fixed — Laminated for Sound Glazing with Foam Insulation															
1"	Advanced Low-E IG	PEL-N-257-00300-00001	4	7	argon	0.26	0.31	0.60	60						
	with grilles-between-the-glass	PEL-N-257-00300-00002				0.26	0.28	0.53	60						
	with applied grilles	PEL-N-257-00300-00005				0.26	0.26	0.48	60						
1"	Advanced Low-E IG	PEL-N-257-00306-00001	5	10	argon	0.25	0.31	0.59	59		NC				
	with grilles-between-the-glass	PEL-N-257-00306-00002				0.25	0.28	0.53	59		NC				
	with applied grilles	PEL-N-257-00306-00005				0.25	0.26	0.47	59		NC				
1"	SunDefense IG	PEL-N-257-00298-00001	4	7	argon	0.25	0.24	0.55	61		NC				
	with grilles-between-the-glass	PEL-N-257-00298-00002				0.25	0.22	0.50	61		NC	SC	S		
	with applied grilles	PEL-N-257-00298-00005				0.25	0.20	0.44	61		NC	SC	S		
1"	SunDefense IG	PEL-N-257-00304-00001	5	10	argon	0.24	0.24	0.54	59		NC				
	with grilles-between-the-glass	PEL-N-257-00304-00002				0.24	0.22	0.49	59		NC	SC	S		
	with applied grilles	PEL-N-257-00304-00005				0.24	0.20	0.43	59		NC	SC	S		

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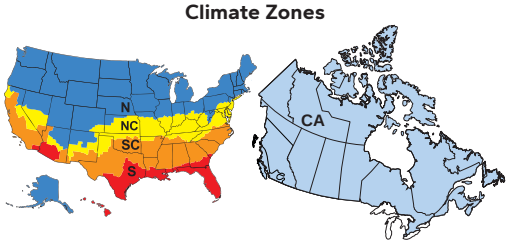
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — Laminated for Sound with High Altitude Glazing										N	NC	SC	S		CA
1"	(HA) Advanced Low-E IG	PEL-N-257-00107-00001	4	7	air	0.30	0.32	0.60	56						
	with grilles-between-the-glass	PEL-N-257-00107-00002				0.30	0.29	0.53	56						
	with applied grilles	PEL-N-257-00107-00005				0.30	0.26	0.48	56						
1"	(HA) Advanced Low-E IG	PEL-N-257-00113-00001	5	10	air	0.30	0.32	0.59	55						
	with grilles-between-the-glass	PEL-N-257-00113-00002				0.30	0.29	0.53	55						
	with applied grilles	PEL-N-257-00113-00005				0.30	0.26	0.47	55						
1"	(HA) SunDefense IG	PEL-N-257-00105-00001	4	7	air	0.30	0.24	0.55	57						
	with grilles-between-the-glass	PEL-N-257-00105-00002				0.30	0.22	0.50	57				S		
	with applied grilles	PEL-N-257-00105-00005				0.30	0.20	0.44	57				S		
1"	(HA) SunDefense IG	PEL-N-257-00111-00001	5	10	air	0.29	0.24	0.54	55						
	with grilles-between-the-glass	PEL-N-257-00111-00002				0.29	0.22	0.49	55				S		
	with applied grilles	PEL-N-257-00111-00005				0.29	0.20	0.43	55				S		
Fixed — Laminated for Sound Glazing with Foam Insulation and High Altitude Glazing															
1"	(HA) Advanced Low-E IG	PEL-N-257-00299-00001	4	7	air	0.29	0.32	0.60	57						
	with grilles-between-the-glass	PEL-N-257-00299-00002				0.29	0.29	0.53	57						
	with applied grilles	PEL-N-257-00299-00005				0.29	0.26	0.48	57						
1"	(HA) Advanced Low-E IG	PEL-N-257-00305-00001	5	10	air	0.29	0.32	0.59	55						
	with grilles-between-the-glass	PEL-N-257-00305-00002				0.29	0.29	0.53	55						
	with applied grilles	PEL-N-257-00305-00005				0.29	0.26	0.47	55						
1"	(HA) SunDefense IG	PEL-N-257-00297-00001	4	7	air	0.29	0.24	0.55	57						
	with grilles-between-the-glass	PEL-N-257-00297-00002				0.29	0.22	0.50	57				S		
	with applied grilles	PEL-N-257-00297-00005				0.29	0.20	0.44	57				S		
1"	(HA) SunDefense IG	PEL-N-257-00303-00001	5	10	air	0.29	0.24	0.54	56						
	with grilles-between-the-glass	PEL-N-257-00303-00002				0.29	0.22	0.49	56				S		
	with applied grilles	PEL-N-257-00303-00005				0.29	0.20	0.43	56				S		

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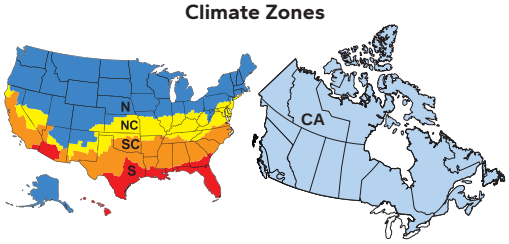
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Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.						U. S.				Canada	
										Zone				ER	Zone
Fixed — with Impact-Resistant Laminated Glazing										N	NC	SC	S		CA
1"	Clear IG (PVB)	PEL-N-257-00385-00001	3	8.6	air	0.44	0.64	0.70	45						
	with grilles-between-the-glass	PEL-N-257-00386-00001				0.44	0.58	0.63	45						
	with applied grilles	PEL-N-257-02345-00001				0.44	0.52	0.56	45						
1"	Clear IG (SGP)	PEL-N-257-00887-00001	5	10.1	air	0.45	0.62	0.69	45						
	with grilles-between-the-glass	PEL-N-257-00888-00001				0.45	0.56	0.62	45						
	with applied grilles	PEL-N-257-02353-00001				0.45	0.51	0.56	45						
1"	Clear IG (SGP)	PEL-N-257-01067-00001	5	11.7	air	0.45	0.61	0.68	44						
	with grilles-between-the-glass	PEL-N-257-01068-00001				0.46	0.55	0.61	44						
	with applied grilles	PEL-N-257-02361-00001				0.45	0.50	0.54	44						
1-1/4"	Clear IG (PVB)	PEL-N-257-01173-00001	6	13.6	air	0.43	0.59	0.67	46						
	with grilles-between-the-glass	PEL-N-257-01174-00001				0.43	0.53	0.60	46						
	with applied grilles	PEL-N-257-02367-00001				0.43	0.48	0.54	46						
1-1/4"	Clear IG (SGP)	PEL-N-257-01281-00001	6	13.6	air	0.43	0.59	0.66	46						
	with grilles-between-the-glass	PEL-N-257-01282-00001				0.43	0.53	0.59	46						
	with applied grilles	PEL-N-257-02375-00001				0.43	0.48	0.53	46						
1"	Advanced Low-E IG (PVB)	PEL-N-257-00435-00001	3	8.6	argon	0.26	0.32	0.59	60						
	with grilles-between-the-glass	PEL-N-257-00436-00001				0.26	0.29	0.53	60						
	with applied grilles	PEL-N-257-02350-00001				0.26	0.26	0.47	60						
1"	Advanced Low-E IG (SGP)	PEL-N-257-00919-00001	5	10.1	argon	0.26	0.31	0.59	59						
	with grilles-between-the-glass	PEL-N-257-00920-00001				0.27	0.28	0.53	59						
	with applied grilles	PEL-N-257-02356-00001				0.26	0.26	0.47	59						
1"	Advanced Low-E IG (SGP)	PEL-N-257-01115-00001	5	11.7	argon	0.26	0.31	0.57	58						
	with grilles-between-the-glass	PEL-N-257-01116-00001				0.28	0.29	0.52	58						
	with applied grilles	PEL-N-257-02366-00001				0.26	0.26	0.46	58						
1-1/4"	Advanced Low-E IG (PVB)	PEL-N-257-01223-00001	6	13.6	argon	0.25	0.31	0.57	60		NC				
	with grilles-between-the-glass	PEL-N-257-01224-00001				0.25	0.28	0.51	60		NC				
	with applied grilles	PEL-N-257-02372-00001				0.25	0.25	0.46	60		NC				
1-1/4"	Advanced Low-E IG (SGP)	PEL-N-257-01331-00001	6	13.6	argon	0.25	0.31	0.56	59		NC				
	with grilles-between-the-glass	PEL-N-257-01332-00001				0.25	0.28	0.50	59		NC				
	with applied grilles	PEL-N-257-02380-00001				0.25	0.25	0.45	59		NC				
1"	SunDefense™ IG (PVB)	PEL-N-257-00411-00001	3	8.6	argon	0.25	0.23	0.55	61		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-00412-00001				0.25	0.21	0.49	61		NC	SC	S		
	with applied grilles	PEL-N-257-02348-00001				0.25	0.19	0.44	61		NC	SC	S		
1"	SunDefense™ IG (SGP)	PEL-N-257-00905-00001	5	10.1	argon	0.25	0.24	0.55	59		NC				
	with grilles-between-the-glass	PEL-N-257-00906-00001				0.27	0.22	0.49	59			SC	S		
	with applied grilles	PEL-N-257-02358-00001				0.25	0.20	0.44	59		NC	SC	S		
1"	SunDefense™ IG (SGP)	PEL-N-257-01093-00001	5	11.7	argon	0.26	0.24	0.53	58						
	with grilles-between-the-glass	PEL-N-257-01094-00001				0.28	0.22	0.48	58			SC	S		
	with applied grilles	PEL-N-257-02364-00001				0.26	0.20	0.43	58			SC	S		
1-1/4"	SunDefense™ IG (PVB)	PEL-N-257-01199-00001	6	13.6	argon	0.25	0.23	0.53	60		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-01200-00001				0.25	0.21	0.48	60		NC	SC	S		
	with applied grilles	PEL-N-257-02370-00001				0.25	0.19	0.42	60		NC	SC	S		
1-1/4"	SunDefense™ IG (SGP)	PEL-N-257-01307-00001	6	13.6	argon	0.25	0.24	0.52	60		NC				
	with grilles-between-the-glass	PEL-N-257-01308-00001				0.25	0.22	0.47	60		NC	SC	S		
	with applied grilles	PEL-N-257-02378-00001				0.25	0.20	0.41	60		NC	SC	S		
1"	Bronze Advanced Low-E IG (PVB)	PEL-N-257-00447-00001	3	8.6	argon	0.26	0.31	0.43	61						
	with grilles-between-the-glass	PEL-N-257-00448-00001				0.26	0.28	0.39	61						
	with applied grilles	PEL-N-257-02352-00001				0.26	0.25	0.35	61						
1"	Bronze Advanced Low-E IG (SGP)	PEL-N-257-00923-00001	5	10.1	argon	0.26	0.30	0.41	59						
	with grilles-between-the-glass	PEL-N-257-00924-00001				0.27	0.28	0.36	59						
	with applied grilles	PEL-N-257-02360-00001				0.26	0.25	0.32	59						
1-1/4"	Bronze Advanced Low-E IG (PVB)	PEL-N-257-01235-00001	6	13.6	argon	0.25	0.30	0.33	59		NC				
	with grilles-between-the-glass	PEL-N-257-01236-00001				0.25	0.27	0.30	59		NC				
	with applied grilles	PEL-N-257-02374-00001				0.25	0.24	0.26	59		NC				

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Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm) Ext.	Glass (mm) Int.	Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown: U. S. Zone N	NC	SC	S	Canada ER	Canada Zone CA
Fixed — with Foam Insulation and Impact-Resistant Laminated Glazing															
1"	Advanced Low-E IG (PVB)	PEL-N-257-01415-00001	3	8.6	argon	0.25	0.32	0.59	61		NC				
	with grilles-between-the-glass	PEL-N-257-01416-00001				0.25	0.29	0.53	61		NC				
	with applied grilles	PEL-N-257-02386-00001				0.25	0.26	0.47	61		NC				
1"	Advanced Low-E IG (SGP)	PEL-N-257-01899-00001	5	10.1	argon	0.25	0.31	0.59	60		NC				
	with grilles-between-the-glass	PEL-N-257-01900-00001				0.25	0.28	0.53	60		NC				
	with applied grilles	PEL-N-257-02392-00001				0.25	0.26	0.47	60		NC				
1"	Advanced Low-E IG (SGP)	PEL-N-257-02095-00001	5	11.7	argon	0.26	0.31	0.57	59						
	with grilles-between-the-glass	PEL-N-257-02096-00001				0.26	0.29	0.52	59						
	with applied grilles	PEL-N-257-02402-00001				0.26	0.26	0.46	59						
1-1/4"	Advanced Low-E IG (PVB)	PEL-N-257-02203-00001	6	13.6	argon	0.25	0.31	0.57	60		NC				
	with grilles-between-the-glass	PEL-N-257-02204-00001				0.25	0.28	0.51	60		NC				
	with applied grilles	PEL-N-257-02408-00001				0.25	0.25	0.46	60		NC				
1-1/4"	Advanced Low-E IG (SGP)	PEL-N-257-02311-00001	6	13.6	argon	0.25	0.31	0.56	60		NC				
	with grilles-between-the-glass	PEL-N-257-02312-00001				0.25	0.28	0.50	60		NC				
	with applied grilles	PEL-N-257-02416-00001				0.25	0.25	0.45	60		NC				
1"	SunDefense™ IG (PVB)	PEL-N-257-01391-00001	3	8.6	argon	0.25	0.23	0.55	61		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-01392-00001				0.25	0.21	0.49	61		NC	SC	S		
	with applied grilles	PEL-N-257-02384-00001				0.25	0.19	0.44	61		NC	SC	S		
1"	SunDefense™ IG (SGP)	PEL-N-257-01885-00001	5	10.1	argon	0.25	0.24	0.55	60		NC				
	with grilles-between-the-glass	PEL-N-257-01886-00001				0.25	0.22	0.49	60		NC	SC	S		
	with applied grilles	PEL-N-257-02394-00001				0.25	0.20	0.44	60		NC	SC	S		
1"	SunDefense™ IG (SGP)	PEL-N-257-02073-00001	5	11.7	argon	0.25	0.24	0.53	59		NC				
	with grilles-between-the-glass	PEL-N-257-02074-00001				0.25	0.22	0.48	59		NC	SC	S		
	with applied grilles	PEL-N-257-02400-00001				0.25	0.20	0.43	59		NC	SC	S		
1-1/4"	SunDefense™ IG (PVB)	PEL-N-257-02179-00001	6	13.6	argon	0.24	0.23	0.53	60		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-02180-00001				0.24	0.21	0.48	60		NC	SC	S		
	with applied grilles	PEL-N-257-02406-00001				0.24	0.19	0.42	60		NC	SC	S		
1-1/4"	SunDefense™ IG (SGP)	PEL-N-257-02287-00001	6	13.6	argon	0.24	0.24	0.52	60		NC				
	with grilles-between-the-glass	PEL-N-257-02288-00001				0.24	0.22	0.47	60		NC	SC	S		
	with applied grilles	PEL-N-257-02414-00001				0.24	0.20	0.41	60		NC	SC	S		
1"	Bronze Advanced Low-E IG (PVB)	PEL-N-257-01427-00001	3	8.6	argon	0.25	0.31	0.43	61		NC				
	with grilles-between-the-glass	PEL-N-257-01428-00001				0.25	0.28	0.39	61		NC				
	with applied grilles	PEL-N-257-02388-00001				0.25	0.25	0.35	61		NC				
1"	Bronze Advanced Low-E IG (SGP)	PEL-N-257-01903-00001	5	10.1	argon	0.25	0.30	0.41	59		NC				
	with grilles-between-the-glass	PEL-N-257-01904-00001				0.25	0.28	0.36	59		NC				
	with applied grilles	PEL-N-257-02396-00001				0.25	0.25	0.32	59		NC				
1-1/4"	Bronze Advanced Low-E IG (PVB)	PEL-N-257-02215-00001	6	13.6	argon	0.25	0.30	0.33	60		NC				
	with grilles-between-the-glass	PEL-N-257-02216-00001				0.25	0.27	0.30	60		NC				
	with applied grilles	PEL-N-257-02410-00001				0.25	0.24	0.26	60		NC				

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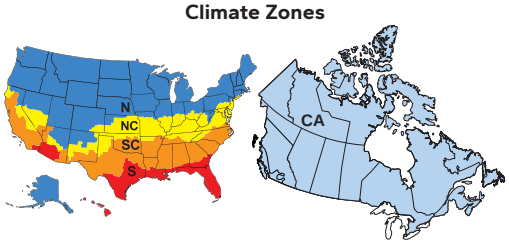
U.S. Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.
ENERGY STAR® values are updated to 2023 (version 7) criteria.

The Canadian values shown are based on the updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.

Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Mid.	Int.						U. S.				Canada	
											Zone				ER	Zone
Fixed — Triple-Pane Glazing											N	NC	SC	S		CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00137-00001	3	3	3	argon	0.16	0.29	0.54	73	N	NC			37	CA
	with grilles-between-the-glass	PEL-N-257-00137-00002					0.16	0.26	0.48	73	N	NC			35	CA
	with applied grilles	PEL-N-257-00137-00005					0.16	0.24	0.43	73	N	NC			34	CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00141-00001	4	4	4	argon	0.17	0.28	0.53	71	N	NC			35	CA
	with grilles-between-the-glass	PEL-N-257-00142-00001					0.17	0.26	0.47	71	N	NC			34	CA
	with applied grilles	PEL-N-257-00141-00002					0.17	0.23	0.42	71	N	NC	SC	S	32	CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00147-00001	5	5	5	argon	0.19	0.28	0.52	69	N	NC			32	CA
	with grilles-between-the-glass	PEL-N-257-00148-00001					0.19	0.26	0.47	69	N	NC			31	CA
	with applied grilles	PEL-N-257-00147-00002					0.19	0.23	0.42	69	N	NC	SC	S	29	CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00153-00001	6	6	6	argon	0.21	0.28	0.51	66	N	NC			30	CA
	with grilles-between-the-glass	PEL-N-257-00154-00001					0.22	0.25	0.46	66	N	NC				
	with applied grilles	PEL-N-257-00153-00002					0.21	0.23	0.41	66	N	NC	SC	S	27	CA
1-1/4"	SunDefense™ IG	PEL-N-257-00158-00001	3	3	3	argon	0.16	0.22	0.50	73	N	NC	SC	S	33	CA
	with grilles-between-the-glass	PEL-N-257-00158-00002					0.16	0.20	0.45	73	N	NC	SC	S	31	CA
	with applied grilles	PEL-N-257-00158-00005					0.16	0.18	0.40	73	N	NC	SC	S	30	CA
1-1/4"	SunDefense™ IG	PEL-N-257-00162-00001	4	4	4	argon	0.17	0.22	0.49	71	N	NC	SC	S	31	CA
	with grilles-between-the-glass	PEL-N-257-00163-00001					0.17	0.20	0.44	71	N	NC	SC	S	30	CA
	with applied grilles	PEL-N-257-00162-00002					0.17	0.18	0.39	71	N	NC	SC	S	29	CA
1-1/4"	SunDefense™ IG	PEL-N-257-00168-00001	5	5	5	argon	0.19	0.22	0.48	69	N	NC	SC	S	29	CA
	with grilles-between-the-glass	PEL-N-257-00169-00001					0.19	0.20	0.43	69	N	NC	SC	S	28	CA
	with applied grilles	PEL-N-257-00168-00002					0.19	0.18	0.39	69	N	NC	SC	S	27	CA
1-1/4"	SunDefense™ IG	PEL-N-257-00174-00001	6	6	6	argon	0.21	0.22	0.47	66	N	NC	SC	S	26	CA
	with grilles-between-the-glass	PEL-N-257-00175-00001					0.22	0.20	0.42	66	N	NC	SC	S		
	with applied grilles	PEL-N-257-00174-00002					0.21	0.18	0.38	66	N	NC	SC	S	24	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00116-00001	3	3	3	argon	0.16	0.49	0.61	73	N				48	CA
	with grilles-between-the-glass	PEL-N-257-00116-00002					0.16	0.44	0.55	73	N				45	CA
	with applied grilles	PEL-N-257-00116-00005					0.16	0.40	0.49	73	N	NC			43	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00120-00001	4	4	4	argon	0.17	0.47	0.60	70	N				46	CA
	with grilles-between-the-glass	PEL-N-257-00121-00001					0.18	0.43	0.54	70	N				42	CA
	with applied grilles	PEL-N-257-00120-00002					0.17	0.39	0.48	70	N	NC			41	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00126-00001	5	5	5	argon	0.19	0.47	0.59	68	N				43	CA
	with grilles-between-the-glass	PEL-N-257-00127-00001					0.20	0.42	0.53	68	N				39	CA
	with applied grilles	PEL-N-257-00126-00002					0.19	0.38	0.47	68	N	NC			38	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00132-00001	6	6	6	argon	0.21	0.45	0.58	65	N				40	CA
	with grilles-between-the-glass	PEL-N-257-00133-00001					0.22	0.41	0.52	65	N				36	CA
	with applied grilles	PEL-N-257-00132-00002					0.21	0.37	0.46	65	N	NC			35	CA

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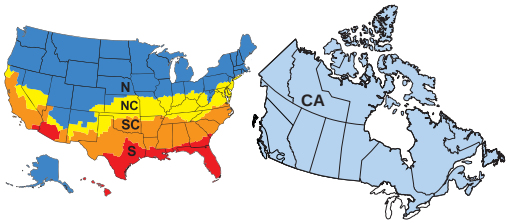
U.S. Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.
ENERGY STAR® values are updated to 2023 (version 7) criteria.

The Canadian values shown are based on the updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.

Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm) Ext.	Glass (mm) Mid.	Glass (mm) Int.	Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown: U. S. Zone N	U. S. Zone NC	U. S. Zone SC	U. S. Zone S	Canada ER	Canada Zone CA
Fixed — Triple-Pane Glazing and Foam Insulation											N	NC	SC	S		CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00329-00001	3	3	3	argon	0.15	0.29	0.54	74	N	NC			38	CA
	with grilles-between-the-glass	PEL-N-257-00329-00002					0.15	0.26	0.48	74	N	NC			36	CA
	with applied grilles	PEL-N-257-00329-00005					0.15	0.24	0.43	74	N	NC			35	CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00333-00001	4	4	4	argon	0.16	0.28	0.53	71	N	NC			36	CA
	with grilles-between-the-glass	PEL-N-257-00334-00001					0.17	0.26	0.47	71	N	NC			34	CA
	with applied grilles	PEL-N-257-00333-00002					0.16	0.23	0.42	71	N	NC	SC	S	33	CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00339-00001	5	5	5	argon	0.18	0.28	0.52	69	N	NC			34	CA
	with grilles-between-the-glass	PEL-N-257-00340-00001					0.19	0.26	0.47	69	N	NC			31	CA
	with applied grilles	PEL-N-257-00339-00002					0.18	0.23	0.42	69	N	NC	SC	S	31	CA
1-1/4"	Advanced Low-E IG	PEL-N-257-00345-00001	6	6	6	argon	0.20	0.28	0.51	66	N	NC			31	CA
	with grilles-between-the-glass	PEL-N-257-00346-00001					0.21	0.25	0.46	66	N	NC			28	CA
	with applied grilles	PEL-N-257-00345-00002					0.20	0.23	0.41	66	N	NC	SC	S	28	CA
1-1/4"	SunDefense IG	PEL-N-257-00350-00001	3	3	3	argon	0.15	0.22	0.50	74	N	NC	SC	S	34	CA
	with grilles-between-the-glass	PEL-N-257-00350-00002					0.15	0.20	0.45	74	N	NC	SC	S	33	CA
	with applied grilles	PEL-N-257-00350-00005					0.15	0.18	0.40	74	N	NC	SC	S	32	CA
1-1/4"	SunDefense IG	PEL-N-257-00354-00001	4	4	4	argon	0.16	0.22	0.49	72	N	NC	SC	S	33	CA
	with grilles-between-the-glass	PEL-N-257-00355-00001					0.17	0.20	0.44	72	N	NC	SC	S	30	CA
	with applied grilles	PEL-N-257-00354-00002					0.16	0.18	0.39	72	N	NC	SC	S	30	CA
1-1/4"	SunDefense IG	PEL-N-257-00360-00001	5	5	5	argon	0.18	0.22	0.48	69	N	NC	SC	S	30	CA
	with grilles-between-the-glass	PEL-N-257-00361-00001					0.19	0.20	0.43	69	N	NC	SC	S	28	CA
	with applied grilles	PEL-N-257-00360-00002					0.18	0.18	0.39	69	N	NC	SC	S	28	CA
1-1/4"	SunDefense IG	PEL-N-257-00366-00001	6	6	6	argon	0.20	0.22	0.47	66	N	NC	SC	S	28	CA
	with grilles-between-the-glass	PEL-N-257-00367-00001					0.21	0.20	0.42	66	N	NC	SC	S	25	CA
	with applied grilles	PEL-N-257-00366-00002					0.20	0.18	0.38	66	N	NC	SC	S	25	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00308-00001	3	3	3	argon	0.16	0.49	0.61	73	N				48	CA
	with grilles-between-the-glass	PEL-N-257-00308-00002					0.16	0.44	0.55	73	N				45	CA
	with applied grilles	PEL-N-257-00308-00005					0.16	0.40	0.49	73	N	NC			43	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00312-00001	4	4	4	argon	0.17	0.47	0.60	71	N				46	CA
	with grilles-between-the-glass	PEL-N-257-00313-00001					0.17	0.43	0.54	71	N				43	CA
	with applied grilles	PEL-N-257-00312-00002					0.17	0.39	0.48	71	N	NC			41	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00318-00001	5	5	5	argon	0.19	0.47	0.59	69	N				43	CA
	with grilles-between-the-glass	PEL-N-257-00319-00001					0.19	0.42	0.53	69	N				40	CA
	with applied grilles	PEL-N-257-00318-00002					0.19	0.38	0.47	69	N	NC			38	CA
1-1/4"	NaturalSun Low-E IG	PEL-N-257-00324-00001	6	6	6	argon	0.21	0.45	0.58	66	N				40	CA
	with grilles-between-the-glass	PEL-N-257-00325-00001					0.22	0.41	0.52	66	N				36	CA
	with applied grilles	PEL-N-257-00324-00002					0.21	0.37	0.46	66	N	NC			35	CA

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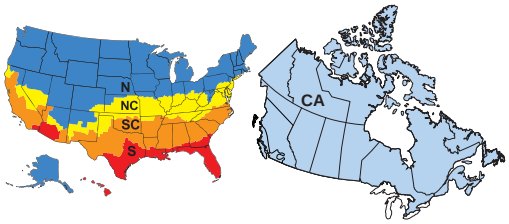
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Climate Zones



Impervia® Fixed Frame Windows

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm) Ext.	Glass (mm) Mid.	Glass (mm) Int.	Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown — U. S. Zone N	NC	SC	S	Canada ER	Canada Zone
Fixed — Triple-Pane High Altitude Glazing																
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00136-00001	3	3	3	air	0.19	0.29	0.54	69	N	NC			33	CA
	with grilles-between-the-glass	PEL-N-257-00136-00002					0.19	0.27	0.48	69	N	NC			32	CA
	with applied grilles	PEL-N-257-00136-00005					0.19	0.24	0.43	69	N	NC			30	CA
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00139-00001	4	4	4	air	0.20	0.29	0.53	67	N	NC			32	CA
	with grilles-between-the-glass	PEL-N-257-00140-00001					0.21	0.26	0.47	67	N	NC			29	CA
	with applied grilles	PEL-N-257-00139-00002					0.20	0.24	0.42	67	N	NC			29	CA
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00145-00001	5	5	5	air	0.23	0.29	0.52	65		NC				
	with grilles-between-the-glass	PEL-N-257-00146-00001					0.23	0.26	0.47	65		NC				
	with applied grilles	PEL-N-257-00145-00002					0.23	0.24	0.42	65		NC				
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00151-00001	6	6	6	air	0.25	0.28	0.51	62		NC				
	with grilles-between-the-glass	PEL-N-257-00152-00001					0.26	0.26	0.46	62						
	with applied grilles	PEL-N-257-00151-00002					0.25	0.23	0.41	62		NC	SC	S		
1-1/4"	(HA) SunDefense IG	PEL-N-257-00157-00001	3	3	3	air	0.19	0.22	0.50	70	N	NC	SC	S	29	CA
	with grilles-between-the-glass	PEL-N-257-00157-00002					0.19	0.20	0.45	70	N	NC	SC	S	28	CA
	with applied grilles	PEL-N-257-00157-00005					0.19	0.18	0.40	70	N	NC	SC	S	27	CA
1-1/4"	(HA) SunDefense IG	PEL-N-257-00160-00001	4	4	4	air	0.20	0.22	0.49	67	N	NC	SC	S	28	CA
	with grilles-between-the-glass	PEL-N-257-00161-00001					0.21	0.20	0.44	67	N	NC	SC	S	25	CA
	with applied grilles	PEL-N-257-00160-00002					0.20	0.18	0.39	67	N	NC	SC	S	25	CA
1-1/4"	(HA) SunDefense IG	PEL-N-257-00166-00001	5	5	5	air	0.23	0.22	0.48	65		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-00167-00001					0.23	0.20	0.43	65		NC	SC	S		
	with applied grilles	PEL-N-257-00166-00002					0.23	0.18	0.39	65		NC	SC	S		
1-1/4"	(HA) SunDefense IG	PEL-N-257-00172-00001	6	6	6	air	0.25	0.22	0.47	62		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-00173-00001					0.26	0.20	0.42	62			SC	S		
	with applied grilles	PEL-N-257-00172-00002					0.25	0.18	0.38	62		NC	SC	S		
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00115-00001	3	3	3	air	0.19	0.49	0.61	69	N				44	CA
	with grilles-between-the-glass	PEL-N-257-00115-00002					0.19	0.44	0.55	69	N				42	CA
	with applied grilles	PEL-N-257-00115-00005					0.19	0.40	0.49	69	N	NC			39	CA
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00118-00001	4	4	4	air	0.21	0.47	0.60	67	N				41	CA
	with grilles-between-the-glass	PEL-N-257-00119-00001					0.21	0.43	0.54	67	N				39	CA
	with applied grilles	PEL-N-257-00118-00002					0.21	0.39	0.48	67	N	NC			36	CA
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00124-00001	5	5	5	air	0.23	0.47	0.59	65	N				38	CA
	with grilles-between-the-glass	PEL-N-257-00125-00001					0.24	0.42	0.53	65	N				34	CA
	with applied grilles	PEL-N-257-00124-00002					0.23	0.38	0.47	65	N	NC				
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00130-00001	6	6	6	air	0.26	0.45	0.58	62	N					
	with grilles-between-the-glass	PEL-N-257-00131-00001					0.27	0.41	0.52	62						
	with applied grilles	PEL-N-257-00130-00002					0.26	0.37	0.46	62						

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

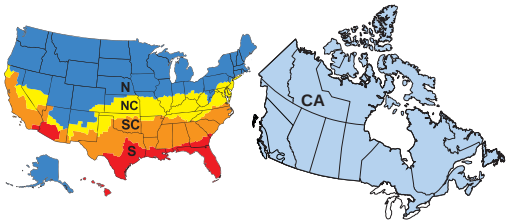
U.S. Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.
ENERGY STAR® values are updated to 2023 (version 7) criteria.

The Canadian values shown are based on the updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.

Climate Zones



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm) Ext.	Glass (mm) Mid.	Glass (mm) Int.	Gap Fill	U-Factor	SHGC	VLT	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown — U. S. Zone N	NC	SC	S	Canada ER	Canada Zone
Fixed — Triple-Pane High Altitude Glazing and Foam Insulation																
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00328-00001	3	3	3	air	0.18	0.29	0.54	70	N	NC			34	CA
	with grilles-between-the-glass	PEL-N-257-00328-00002					0.18	0.27	0.48	70	N	NC			33	CA
	with applied grilles	PEL-N-257-00328-00005					0.18	0.24	0.43	70	N	NC			31	CA
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00331-00001	4	4	4	air	0.20	0.29	0.53	67	N	NC			32	CA
	with grilles-between-the-glass	PEL-N-257-00332-00001					0.20	0.26	0.47	67	N	NC			30	CA
	with applied grilles	PEL-N-257-00331-00002					0.20	0.24	0.42	67	N	NC			29	CA
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00337-00001	5	5	5	air	0.22	0.29	0.52	65	N	NC				
	with grilles-between-the-glass	PEL-N-257-00338-00001					0.23	0.26	0.47	65		NC				
	with applied grilles	PEL-N-257-00337-00002					0.22	0.24	0.42	65	N	NC				
1-1/4"	(HA) Advanced Low-E IG	PEL-N-257-00343-00001	6	6	6	air	0.25	0.28	0.51	62		NC				
	with grilles-between-the-glass	PEL-N-257-00344-00001					0.26	0.26	0.46	62						
	with applied grilles	PEL-N-257-00343-00002					0.25	0.23	0.41	62		NC	SC	S		
1-1/4"	(HA) SunDefense IG	PEL-N-257-00349-00001	3	3	3	air	0.18	0.22	0.50	70	N	NC	SC	S	30	CA
	with grilles-between-the-glass	PEL-N-257-00349-00002					0.18	0.20	0.45	70	N	NC	SC	S	29	CA
	with applied grilles	PEL-N-257-00349-00005					0.18	0.18	0.40	70	N	NC	SC	S	28	CA
1-1/4"	(HA) SunDefense IG	PEL-N-257-00352-00001	4	4	4	air	0.20	0.22	0.49	68	N	NC	SC	S	28	CA
	with grilles-between-the-glass	PEL-N-257-00353-00001					0.20	0.20	0.44	68	N	NC	SC	S	26	CA
	with applied grilles	PEL-N-257-00352-00002					0.20	0.18	0.39	68	N	NC	SC	S	25	CA
1-1/4"	(HA) SunDefense IG	PEL-N-257-00358-00001	5	5	5	air	0.22	0.22	0.48	65	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-00359-00001					0.23	0.20	0.43	65		NC	SC	S		
	with applied grilles	PEL-N-257-00358-00002					0.22	0.18	0.39	65	N	NC	SC	S		
1-1/4"	(HA) SunDefense IG	PEL-N-257-00364-00001	6	6	6	air	0.25	0.22	0.47	62		NC	SC	S		
	with grilles-between-the-glass	PEL-N-257-00365-00001					0.26	0.20	0.42	62			SC	S		
	with applied grilles	PEL-N-257-00364-00002					0.25	0.18	0.38	62		NC	SC	S		
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00307-00001	3	3	3	air	0.19	0.49	0.61	69	N				44	CA
	with grilles-between-the-glass	PEL-N-257-00307-00002					0.19	0.44	0.55	69	N				42	CA
	with applied grilles	PEL-N-257-00307-00005					0.19	0.40	0.49	69	N	NC			39	CA
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00310-00001	4	4	4	air	0.20	0.47	0.60	67	N				42	CA
	with grilles-between-the-glass	PEL-N-257-00311-00001					0.21	0.43	0.54	67	N				39	CA
	with applied grilles	PEL-N-257-00310-00002					0.20	0.39	0.48	67	N	NC			37	CA
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00316-00001	5	5	5	air	0.22	0.47	0.59	65	N				40	CA
	with grilles-between-the-glass	PEL-N-257-00317-00001					0.23	0.42	0.53	65	N				35	CA
	with applied grilles	PEL-N-257-00316-00002					0.22	0.38	0.47	65	N	NC			34	CA
1-1/4"	(HA) NaturalSun Low-E IG	PEL-N-257-00322-00001	6	6	6	air	0.25	0.45	0.58	62	N				35	CA
	with grilles-between-the-glass	PEL-N-257-00323-00001					0.26	0.41	0.52	62	N					
	with applied grilles	PEL-N-257-00322-00002					0.25	0.37	0.46	62		NC				

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

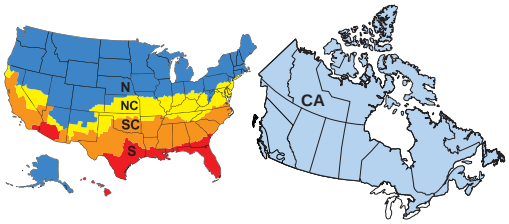
U.S. Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.
ENERGY STAR® values are updated to 2023 (version 7) criteria.

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For center-glass values, see the Product Performance section.

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Climate Zones

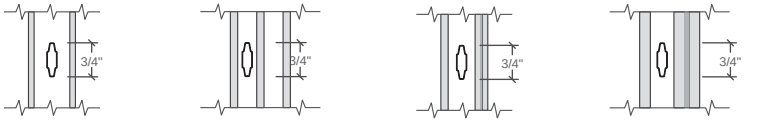


Grilles

Grille Profiles

Grilles-Between-the-Glass

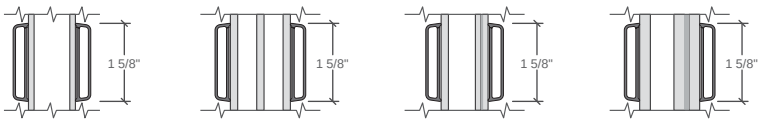
3/4" Contour GBG



1" Dual-Pane | 1-1/4" Triple-Pane | 1" Impact-Resistant | 1-1/4" Impact-Resistant

Applied Grilles

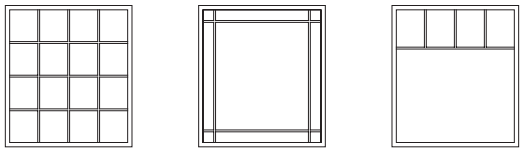
1-5/8" Applied SDL



1" Dual-Pane | 1-1/4" Triple-Pane | 1" Impact-Resistant | 1-1/4" Impact-Resistant

Grille Patterns

Grilles-Between-the-Glass

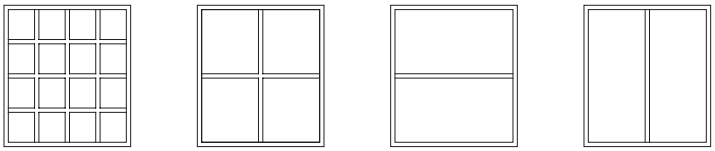


Traditional | 9-Lite Prairie[1] | Top Row[2]

(1) Standard corner lite dimension for Prairie patterns = 4" visible glass (VG).

(2) Standard visible glass to center line of separator bar = 14" or half of total visible glass height, whichever is smaller. Multiple rows are available up to 50% glass size.

Applied Grilles (to simulate multiple unit composites)



4 x 4 | 2 x 2 | 1 x 2 | 2 x 1

Equally Divided

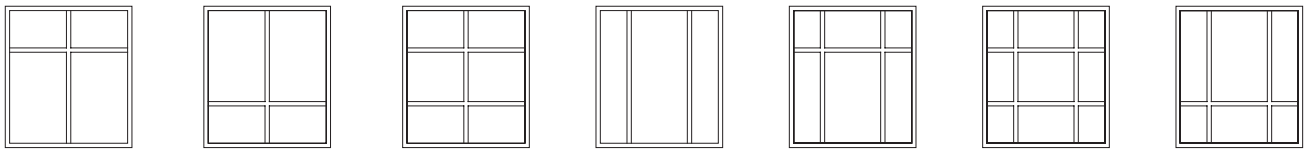
- Select up to 4 lites wide or high

Unequally Divided

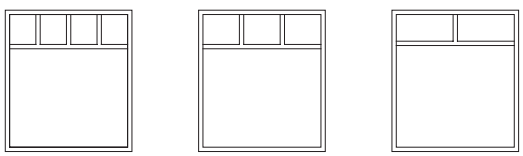
- Custom Specify - select up to 3 lites wide or high

Top Row

- Select desired number of lites wide. Horizontal bar height is variable up to 50% glass size.



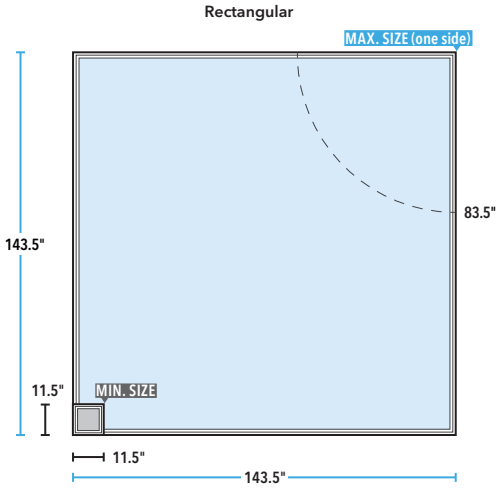
2 x 2 | 2 x 2 | 2 x 3 | 3 x 1 | 3 x 2 | 3 x 3 | 3 x 2



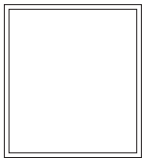
4 x 1 | 3 x 1 | 2 x 1

The above are examples only and are not to scale.

Design Data - Special Sizes and Dimensions



Single unit



Minimum
11-1/2" W x 11-1/2" H
(292 x 292)

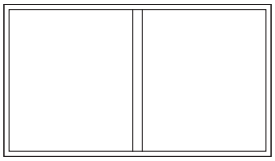
Maximum
11' 11-1/2"
(143-1/2")
(3 645)
In one direction
Short side cannot be > 83.5"
70 Ft² Maximum

General Notes:

- To convert areas to square meters (m²), multiply square feet by 0.0929.
- Rough Opening = Frame Dimension + 1/2".
- Keep frame dimensions to the nearest 1/8" increment

A composite is a window or door consisting of two or more sashes or panels within a single frame utilizing an integral mullion. Integral mullions are not impact certified.

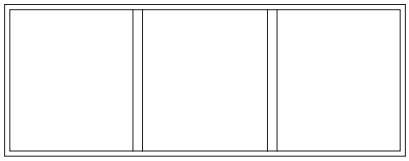
2-Wide Composite with Integral Mullion



Minimum
1' 11-1/2" W x 11-1/2" H
(23-1/2" x 11-1/2")
(597 x 292)

Maximum
11' 11-1/2" W or 6' 11-1/2" H
(143-1/2" x 83-1/2")
(3 645 x 2 121)
70 Ft² Maximum

3-Wide Composite with Integral Mullion



Minimum
2' 11-1/2" W x 11-1/2" H
(35-1/2" x 11-1/2")
(902 x 292)

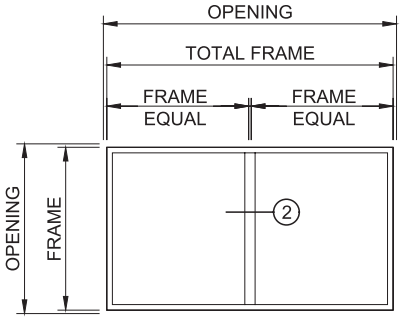
Maximum
11' 11-1/2" W or 6' 11-1/2" H
(143-1/2" x 83-1/2")
(3 645 x 2 121)
70 Ft² Maximum

Glass Formulas

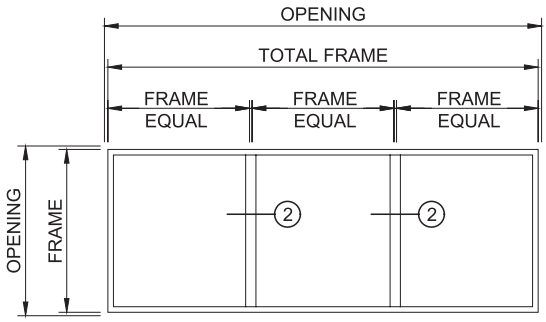
	Actual Glass		Visible Glass	
	Width	Height	Width	Height
Single units	Frame Width – 2.25"	Frame Height – 2.25"	Frame Width – 3.5"	Frame Height – 3.5"

When ordering and sizing composites, use overall frame/rough opening dimension.

Composite Configurations



2 2-Wide Fixed Frame with Integral Mullion



2 3-Wide Fixed Frame with Integral Mullion

Fixed Frame Direct Set Dimensions

Overall Composite[1]	Opening Width		Opening Height		Frame Width		Frame Height	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
2-Wide	2' (24") (610)	12' (144") (3 658)	1' (12") (305)	7' (84") (2 134)	1' 11-1/2" (23-1/2") (597)	11' 11-1/2" (143-1/2") (3 645)	11-1/2" (292)	6' 11-1/2" (83-1/2") (2 121)
3-Wide	3' (36") (914)	12' (144") (3 658)	1' (12") (305)	7' (84") (2 134)	2' 11-1/2" (35-1/2") (902)	11' 11-1/2" (143-1/2") (3 645)	11-1/2" (292)	6' 11-1/2" (83-1/2") (2 121)

(1) Keep frame dimensions to nearest 1/8" increments.
Maximum composite frame size should be no more than 70 sq. ft.
When ordering and sizing composites, use overall frame/rough opening dimension.
Integral mullions are not impact certified.

Impact-resistant laminated glass will only be available on single units using Block Frame with a Prep for Screw Through Frame or Installation Clips attachment methods. Composite units do not qualify. See FPAS documents or Pella Installation Instructions for required anchor layout and details.

Impact-Resistant Performance Data

	1-1/4" SGP	1" PVB	1-1/4" PVB
Maximum Performance Grade[1]			
Up to 18 sq. ft. of frame	+50 / -55	+50 / -55	+50 / -55
Up to 31 sq. ft. of frame	+50 / -55	+50 / -55	+50 / -55
Up to 48 sq. ft. of frame	+50 / -55	+50 / -55	+50 / -55
Certification			
Hallmark	411-H-1507	411-H-1507	411-H-1507
FPAS / TDI[2]	FL 26584	FL 26584	FL 26584

The use of fixed frame direct set windows is limited by product performance rating, design pressure load chart, installation method and glass thickness or type.
Always consult local building code and Florida FPAS for performance and installation requirements.

Impact-Resistant Special Size Frame Dimensions

	Minimum	Maximum PVB	Maximum SGP
Fixed	11-1/2" W x 11-1/2" H (292 x 292)	2' 11-1/2" W x 6' 1-1/2" H (37-1/2" x 73-1/2") (902 x 1 867)	5' 0" W x 10' 0" H (60" x 120") (1 524 x 3 048)

Available within size range shown.
Keep frame dimensions to the nearest 1/8" increment.

All units with Impact-Resistant glazing are certified for wind zone 2, large missile rating C (Non-HVHZ).
(1) Maximum design pressure limited by unit testing or ASTM E 1300-04(H) and ASTM E 1300-04(D)
(2) Some size exclusions may apply.

Frame

- Frame is Duracast® fiberglass composite — five-layer pultruded fiberglass material [with optional foam insulation[1]], reinforced with a Pella patented interlocking mat.
- Overall frame depth is 3-1/4".
- Nominal wall thickness of Duracast fiberglass composite members is .070" to 0.135" thick.
- Frame corners are mitered, joined and bonded with corner lock, mechanical fasteners and with injected polyurethane adhesive sealant.
- Jambs contain factory-positioned installation screw locations.
- Optional factory-applied jamb extensions available in 4-9/16" and 6-9/16".

Exterior / Interior

- Duracast fiberglass composite surfaces with powder-coat paint finish.
  - Color is [White] [Brown] [Black] [Tan] [Morning Sky Gray].

  - or -

  - Dual-color option [Brown] [Black] [Tan] [Morning Sky Gray] exterior with White interior.

Glazing System

- Quality float glass complying with ASTM C 1036.
- Glazing Serviceability [Exterior and Interior access required - Wet glaze PUR sealant] [Interior access only required - Dry glaze foam tape]
- Dual-pane 1" insulating glass [[annealed] [tempered]] [obscure[2]], [[clear] [Advanced] [SunDefense™] [SunDefense+] [AdvancedComfort] [NaturalSun] [NaturalSun+] Low-E coated, with argon]] [[bronze] [gray] [green] Advanced Low-E [with Argon]] sealed and bonded to frame.
- High altitude glazing available.

  or

- Triple-Pane 1-1/4" insulating glass [[annealed] [tempered]] [obscure[2]] [clear] [[Advanced] [NaturalSun] Low-E coated [with argon]]

  or

- Open glaze also available – frame, glass stops, glass stop covers only.

  – or –

Impact-Resistant

- Silicone-glazed 1-1/4" dual-seal impact-resistant insulating glass SGP. [[tempered] [annealed]] exterior light is [[Advanced Low-E] [SunDefense] [clear] [bronze] [gray] [green]]. Laminated clear interior light.

  – or –

- Silicone-glazed [1] [1-1/4"] dual-seal impact-resistant insulating glass [PVB]. [[tempered] [annealed]] exterior light is [[Advanced Low-E] [SunDefense] [clear]]. Laminated [clear] interior light, or [[tempered] [annealed]] exterior light is [multi-layer Low-E]. Laminated [[bronze] [gray] [green]] interior light.

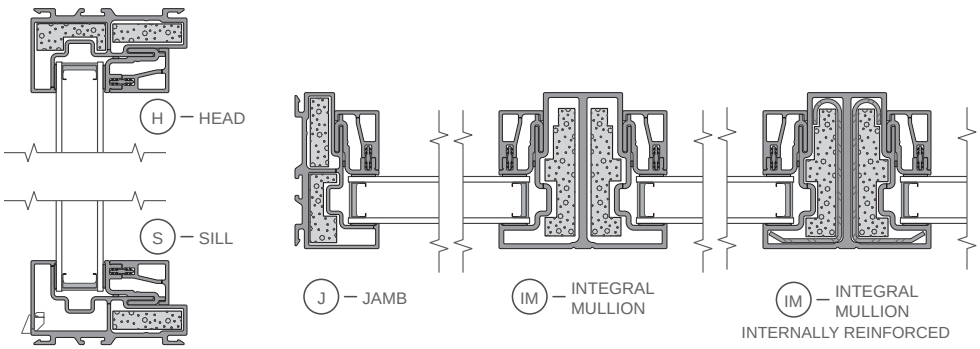
Optional Foam Insulation Inserts[1]

Optional Products

Grilles

- Grilles-Between-the-Glass
  - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
  - Grilles are factory pre-finished [White] [Brown] [Black] [Tan] [Morning Sky Gray].
- Interior and Exterior Applied grilles
  - 1-5/8" aluminum grilles are applied to the interior and exterior of glass.
  - Grilles are factory pre-finished [White] [Brown] [Black] [Tan] [Morning Sky Gray].

3 1/4" Frame



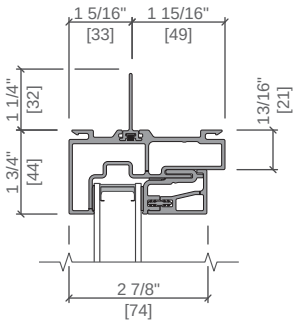
(1) Foam insulation inserts are not available with clear glazing.

(2) Obscure glazing is not available when AdvancedComfort Low-E coated IG is specified.

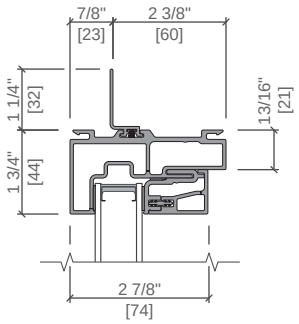
Unit Sections - Frame Types and Glazing Options

NEW CONSTRUCTION FRAME

Standard Block Frame with Standard Fin

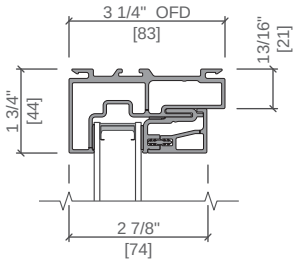


Standard Block Frame with Off Set Fin



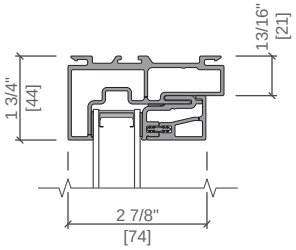
REPLACEMENT FRAME

Standard Block Frame

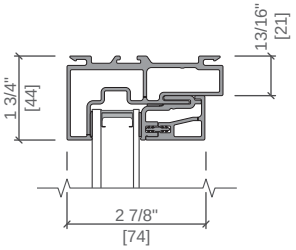


GLAZING OPTIONS

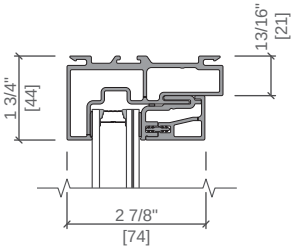
1" Dual IG



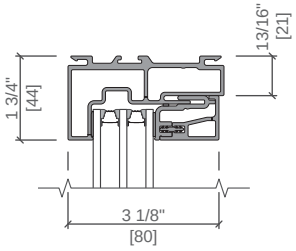
1" Sound IG



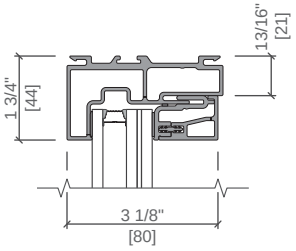
1" Impact-Resistant IG



1 1/4" Triple IG



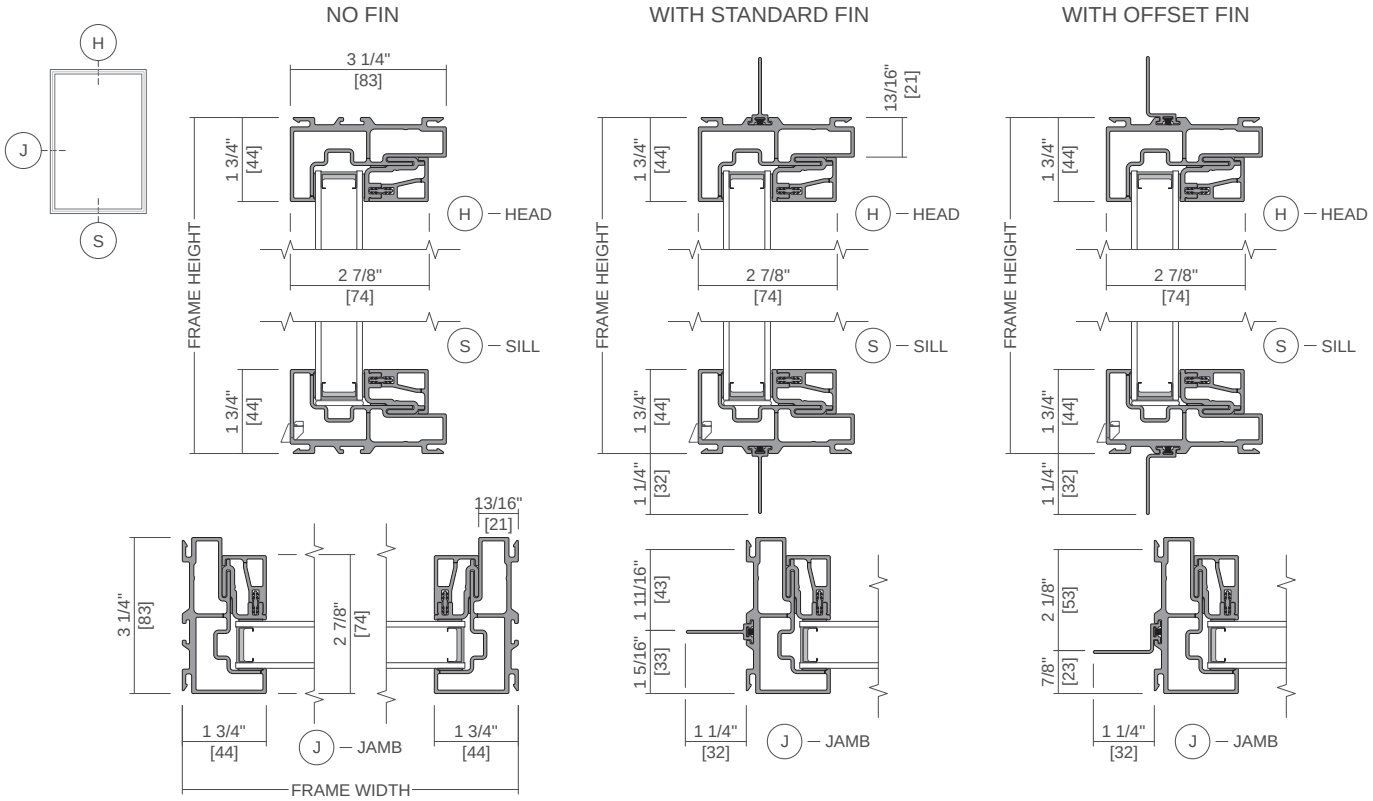
1 1/4" Impact-Resistant IG

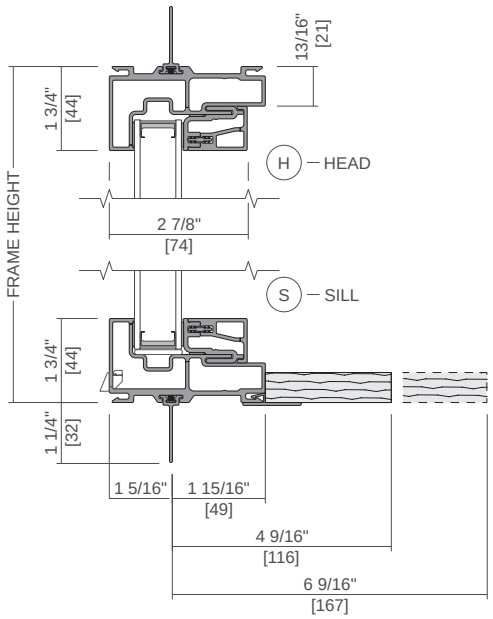


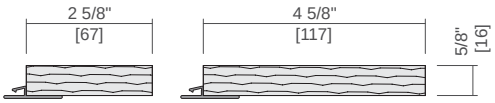
Scale 3" = 1' 0"

All dimensions are approximate.

Unit Sections - Dual-Pane







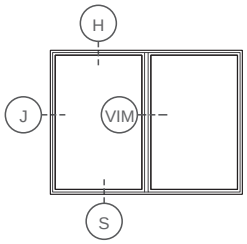
Optional Factory Applied Wood Jamb Extensions

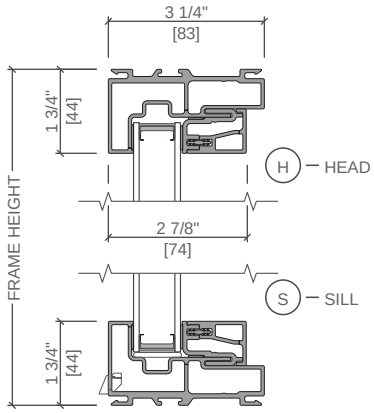
Scale 3" = 1' 0"

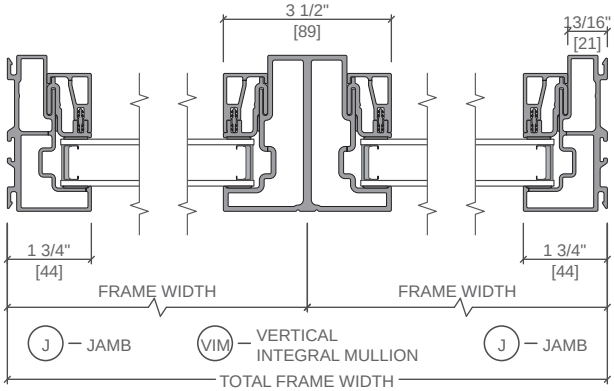
All dimensions are approximate.

Unit Sections - Dual-Pane Composites

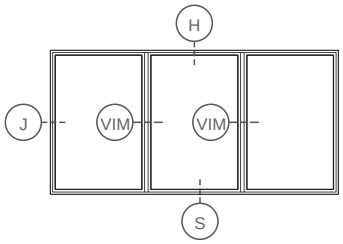
TWO WIDE HORIZONTAL UNIT

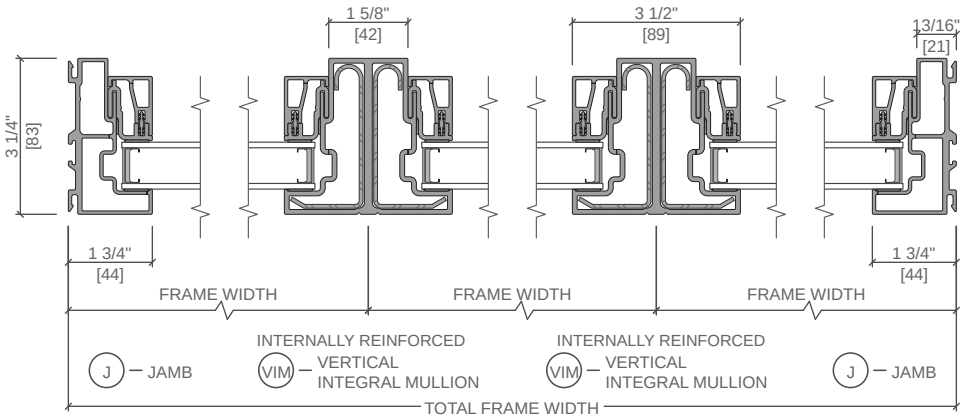




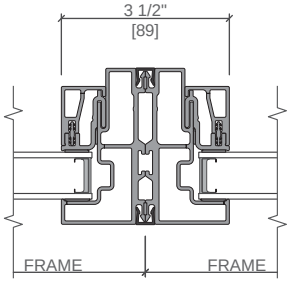


THREE WIDE HORIZONTAL UNIT





COMBINATION



JOINING MULLION
WITH TAPE
(Vertical Only)

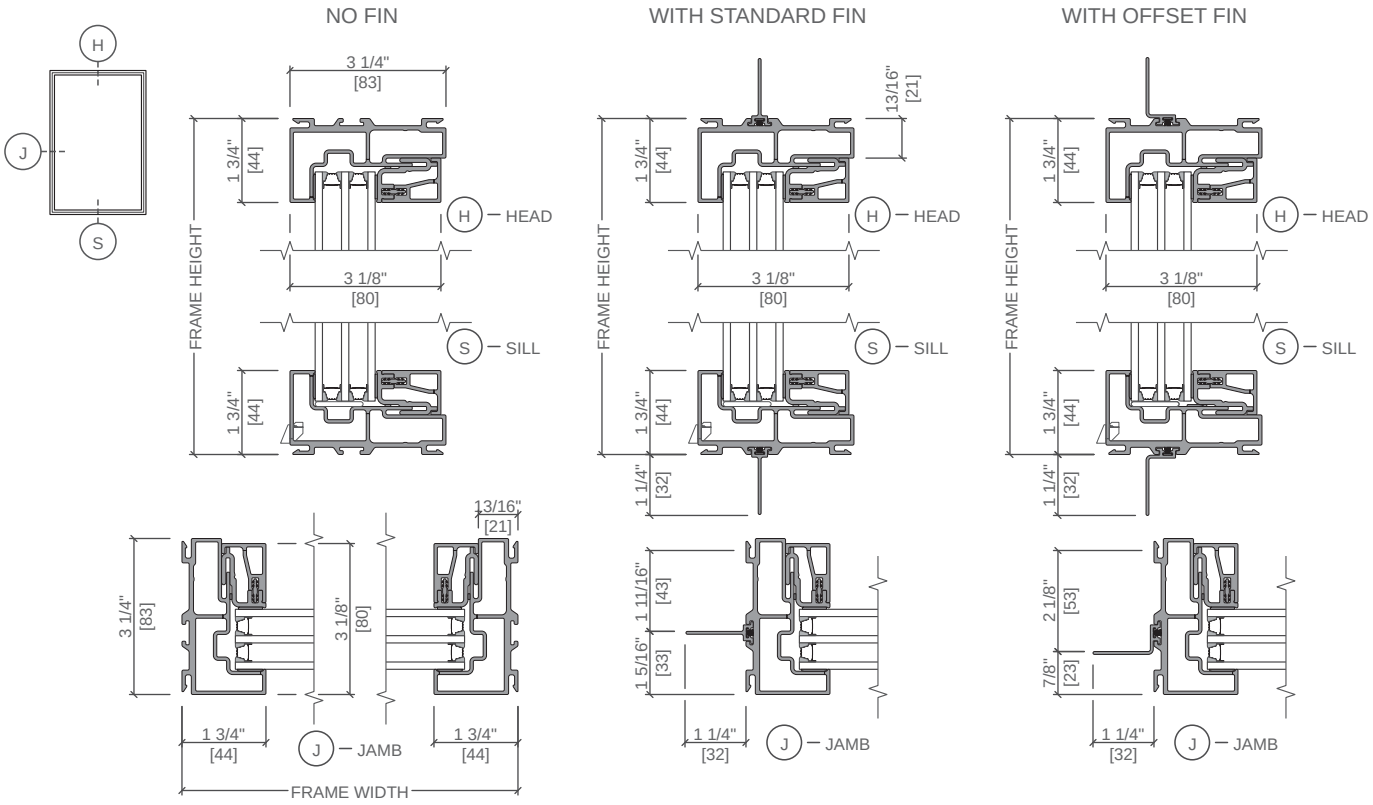
Scale 3" = 1' 0"

All dimensions are approximate.

See the Combinations section for mullion applications and structural limitations.

Integral mullions are not impact certified.

Unit Sections - Triple-Pane

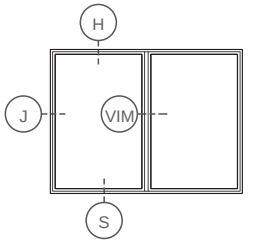


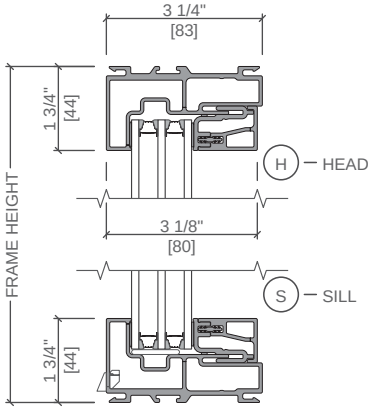
Scale 3" = 1' 0"

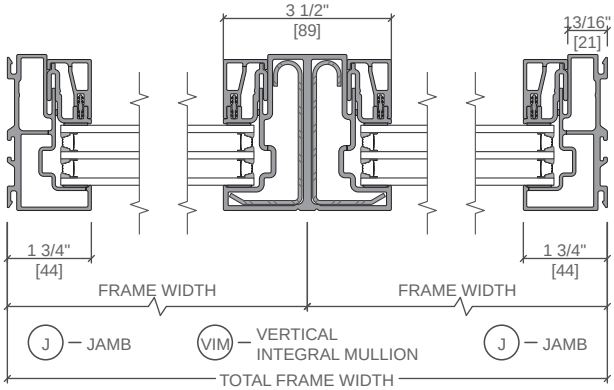
All dimensions are approximate.

Unit Sections - Triple-Pane Composites

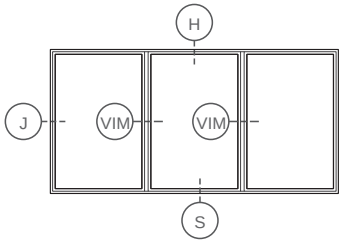
TWO WIDE HORIZONTAL UNIT

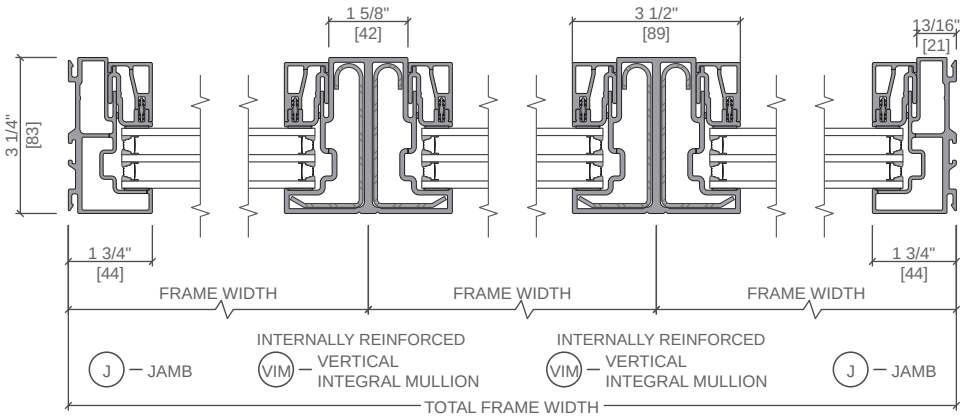






THREE WIDE HORIZONTAL UNIT





Scale 3" = 1' 0"

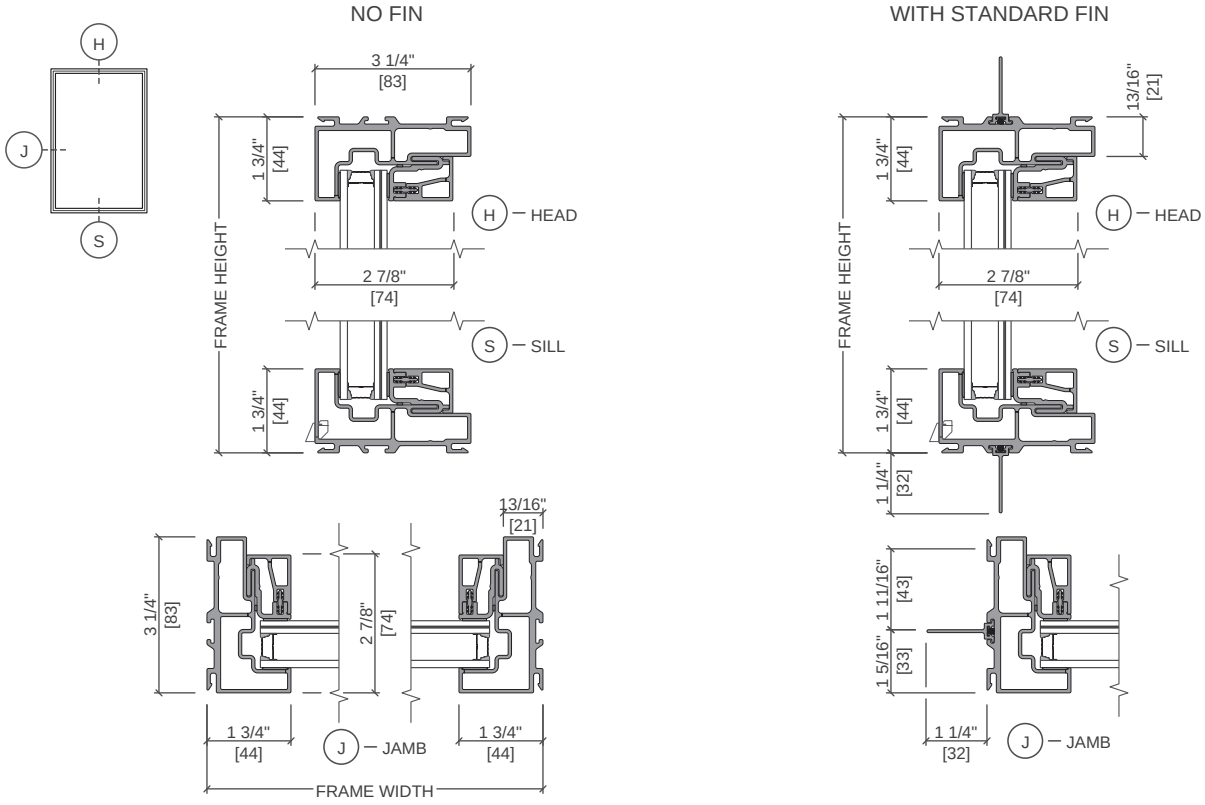
All dimensions are approximate.

See the Combinations section for mullion applications and structural limitations.

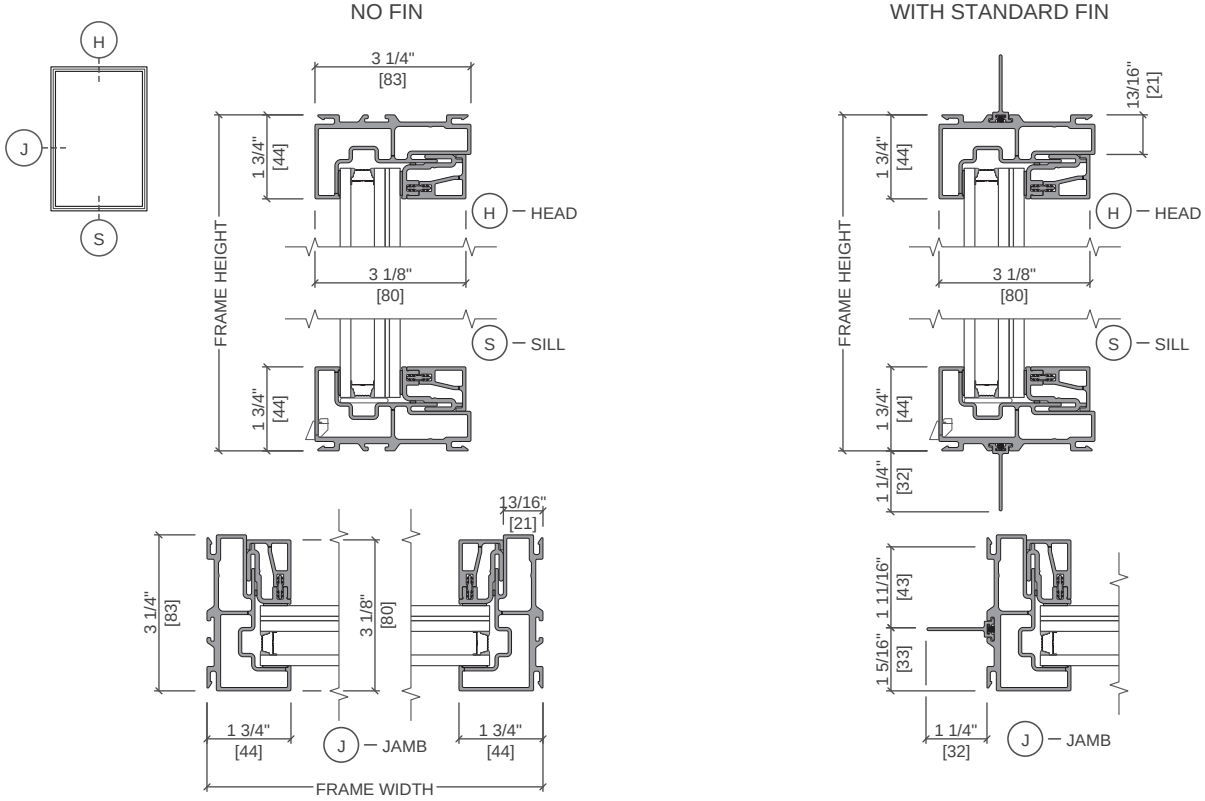
Integral mullions are not impact certified.

Unit Sections - Impact-Resistant Laminated Glass

1" IMPACT-RESISTANT IG



1 1/4" IMPACT-RESISTANT IG



Scale 3" = 1' 0"

All dimensions are approximate.

West Oak Coffee Project

Submitted on Aug 05, 2025

Kingdom Contracting

Dallas-Fort Worth Metropolitan Area, TX, USA

Cason Shobert
Cason@kingdomcontractingtx.com
972-316-7651

https://www.kingdomcontractingllc.com/

Client

Matt Fisher
matt@westoakcoffeebar.com
469-226-3193

Project address

114 West Oak Street, Denton, 76201

Billing address

114 West Oak Street, Denton, 76201

Cost summary

Task	Quantity	Amount
General conditions		**$18,300**
Site Prep Clear out upstairs unit, bring dumpster on site	1 each	$5,250
Planning, Management, and Inspections All administrative and managerial labor for pre-construction planning, project management, and execution of inspections w/ inspectors	1 each	$11,250
Furnishings Customer provided, assembled, and placed - no charges	1 each	$0
F&B Equipment Customer provided, assembled, and placed - no charges	1 each	$0

Task	Quantity	Amount
Dumpster Costs	3 each	$1,800
Estimated Quantity of dumpsters		
Framing		**$40,585**
Interior Walls	1 each	$18,000
Installation of new dividing walls and rebuilding to code existing walls		
Stair Access Modification (Framing)	1 each	$20,860
Framing for new stair Access and platform from downstairs - modify staircase to code		
Window Modification (Framing)	1 each	$1,725
Exterior Doors/Windows		**$7,200**
Window Replacements	2 each	$7,200
Replace/Install both rear windows		
Flat roofing		**$3,000**
Repairs	1 each	$3,000
Repair roof punch-throughs		
HVAC		**$92,350**
Basement	1 each	$0
None at this time - no charges		
Ground Floor	1 each	$31,200
Update, repair, and replace to restore functionality with new load calculations according to new top floor finishes		
Top Floor - New System	1 each	$55,900
New system according to plan specs - brand may vary		
Crane Service	1 each	$5,250
Service to lift new units to rooftop		
Electrical		**$28,500**
Rough Electric	1 each	$22,500
Rough electric		
Finish Electric	1 each	$6,000
No fixtures included - all light fixtures provided by customer - this is installation only		
Plumbing		**$37,280**
Rough Plumbing	1 each	$28,280
All materials and labor - may vary depending on unexpected plumbing needs from		
Finish plumbing	1 each	$9,000
Installation of all new equipment and fixtures. Plumbing equipment provided by contractor. Fixtures and coffee shop machines provided by customer.		

Task	Quantity	Amount
Flooring		**$47,537.50**
Red Oak or White Oak 2.5-3.5inch	1300 sq.ft	$23,887.50
Hard scrape Finish, stained, and sealed		
Stair Finishes	1 each	$15,400
All materials and labor		
Tile Installation	1 each	$8,250
Tile and grout provided by customer - labor and construction general materials provided by contractor		
Drywall/Plaster		**$12,180**
Drywall and Plaster	1 each	$12,180
Material and Labor for new sheetrock, drywall, and plaster/drywall repairs		
Painting		**$20,550**
Paint and Stain	1 each	$20,550
Labor and materials for prep, prime, paint, and stain		
Trim Carpentry and Cabinetry		**$46,200**
Trim Carpentry	1 each	$15,400
Baseboards, Door Casing, and Window Trim		
Interior Doors	1 each	$5,600
Window Seats and Bar Cabinetry	1 each	$25,200
Bathroom		**$8,450**
Bathroom Counter/Vanity	1 each	$5,200
Final price TBD based on design (by change order) estimated price included priced for mid tier quarts or granite. Need more information for bathroom design		
Wall Covering/FRP/Wall Tile	1 each	$3,250
Fire Sprinkler System		
Fire Protection System	1 each	$0
Awaiting information from city and/or engineer. Price TBD and added by change order		

Subtotal	$362,132.50
Total	**$362,132.50**

Quote validity:

15 Days

Payment schedule:

Deposit	30%	$108,639.75
Progress Payment	20%	$72,426.50
Progress Payment	20%	$72,426.50
Progress Payment	20%	$72,426.50
End of project	10%	$36,213.25

Construction schedule:

Estimated 90-120 Days from permit approval. Does not account for change orders, design changes, or extended wait times with the city for inspections.

Terms and conditions:

Purpose

The purpose of this Agreement is to set forth the terms and conditions under which Contractor will perform the construction work described above for Client.

Scope of Work

The Contractor shall perform the construction work described in this quote in accordance with all applicable laws and regulations and in accordance with the plans and specifications provided.
The Contractor must at all times comply with the applicable regulations and codes in force, the best practices applicable and the terms and conditions of this contract. He is also responsible for the work carried out by his workers and for those carried out by the subcontractors he hires.

Security and maintenance of the premises

The Contractor must ensure the safety of the premises, keep the premises clean and prevent any accumulation of unusable materials or other nuisances. The Contractor must protect the work, Client property and property adjacent to the site of the work from damage. Upon completion of the work, the contractor must remove all construction debris and clean the site of dirt caused by the work, at its sole costs.
The Contractor shall be solely responsible to take the necessary steps to protect the health and ensure the safety and physical well-being of construction workers.

Insurance

The Contractor confirms that he has adequate and sufficient civil liability insurance for the performance of the work provided for in the contract and that this insurance covers the subcontractors and the Client. The Contractor confirms that he has an adequate and sufficient damage insurance coverage protecting the value of the Client property, as well as his materials and equipment.

Payment Terms

Client shall pay Contractor in accordance with the payment schedule set forth in the contract. Change orders must be approved and paid in advance of work completion.

Change Orders

Any changes to the scope of work shall be set forth in a written change order signed by both parties. No change order shall be binding unless it is signed by both parties. Change orders must be approved and paid in advance of work completion.

Warranties

The Contractor undertakes to provide the Client if requested, at the end of the work, with the documents setting out the guarantees from the manufacturers and sellers in connection with the products or materials installed. In addition to applicable legal guarantees, the Client shall benefit from the Contractor's contractual guarantee for a minimal period of one year.

Default on the part of the Contractor or Client and termination of the contract

The Contractor is in default if he breaches any of his obligations under this contract. If the breach is material, the Client may terminate the contract if the Contractor does not correct the breach within the time limit provided in the written notice sent to him by the Client. The Client is in default if he breaches one of his obligations under this contract. If the breach is material, the Contractor may terminate the contract if the Client does not correct the breach within the time limit provided for in the written notice sent to him by the Contractor. The contract is terminated if the Contractor becomes insolvent, goes bankrupt or makes a general assignment of its assets for the benefit of its creditors, or if a bankruptcy receiver is appointed for the contractor.

Unilateral termination of the contract

The Contractor may terminate the contract unilaterally only for a serious reason, and never at an inopportune moment. Upon termination of the contract, the Client is bound to pay to the Contractor the value of the work performed before the end of the contract or before the notification of termination, as well as the value of the goods which have been handed over to him and which are usable, if any. For his part, the Contractor is bound to repay any advances he has received in excess of what he has earned.

The Client can unilaterally terminate the contract at any time even if the work has started. On the other hand, he must pay the Contractor the value of the work performed before the end of the contract or before the notification of termination, as well as the value of the goods which have been handed over to him and which are usable, if any. Each party may be held liable for the damage suffered by the other.

Material price fluctuation

The Contractor reserves the right to review with the Client the amount of the quote attributed to materials that will have undergone a significant increase between the time of signing the contract and the first day of work. Any revision to the contract must be approved by the Client and the Contractor before work begins.

Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the contractor’s company address.

Entire Agreement

This Agreement constitutes the entire agreement between the parties and supersedes all prior negotiations, understandings, and agreements between the parties relating to the subject matter of this Agreement.

Signatures:

Matthew Fisher	Cason Shobert
Signed by Matthew Fisher Client Signed on Aug 05, 2025	Signed by Cason Shobert Contractor Signed on Aug 05, 2025

WEST OAK
COFFEE SHOP

116 WEST OAK STREET,
DENTON, TX

SITE PLAN (N.T.S.)



GENERAL NOTES

01. THE OWNER'S STANDARD FORM OF AGREEMENT AND GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION IS HEREBY MADE A PART OF THESE CONSTRACT DOCUMENTS.

02. THESE DESIGN DOCUMENTS ARE INTENDED TO BE A REPRESENTATION OF THE DESIGN INTENT.

03. THE SCOPE OF WORK TO BE PERFORMED IS AS DESCRIBED IN THESE GENERAL NOTES AS SHOWN ON THE ACCOMPANYING DRAWINGS AND SPECIFICATIONS, TO BE FURTHER SUPPLEMENTED BY EXPLANATORY DETAILS AS REQUIRED.

04. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING IF HE / SHE CANNOT COMPLY WITH ALL OF THE GENERAL NOTES CALLED FOR ON THIS SHEET AND ON ALL OTHER DRAWINGS.

05. ALL DESIGN DRAWINGS AND ALL CONSTRUCTION NOTES ARE COMPLIMENTARY AND WHAT IS CALLED FOR BY EITHER WILL BE BINDING AS IF CALLED FOR BY ALL. ANY WORK SHOWN OR REFERRED TO ON ANY ONE SET OF DRAWINGS SHALL BE PROVIDED AS THOUGH SHOWN ON ALL RELATED DRAWINGS.

06. ALL WORK LISTED OR IMPLIED ON THE DRAWING SHEETS OR NOTES SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR. IT IS EXPECTED THAT EACH CONTRACTOR SHALL CLOSELY COORDINATE HIS WORK WITH THE OTHER CONTRACTORS TO ASSURE THAT ALL SCHEDULES ARE MET.

07. THE CONSTRUCTION NOTES AND DRAWINGS ARE SUPPLIED TO ILLUSTRATE THE DESIGN AND GENERAL TYPE OF CONSTRUCTION DESIRED AND ARE INTENDED TO IMPLY A PREMIUM QUALITY OF CONSTRUCTION MATERIALS AND WORKMANSHIP THROUGHOUT.

08. THE CONTRACTORS, UPON ACCEPTANCE OF THE DRAWING, ASSUMES FULLY THE RESPONSIBILITY FOR THE CONSTRUCTION DOCUMENTS, FOR THEIR SPECIFIC TRADE, ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE BY ALL TRADES.

09. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THEIR WORK DURING ALL PHASES OF CONSTRUCTION AND UNTIL TURNED OVER TO THE OWNER.

10. CONTRACTORS SHALL SUBMIT ALL FABRICATION SHOP DRAWINGS AND FIXTURE CUT SHEETS TO THE ARCHITECT FOR APPROVAL IN A TIMELY MANNER.

11. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL PROVIDE THE ARCHITECTS WITH CONSTRUCTION SCHEDULES SHOWING THE CHRONOLOGICAL PHASES OF THEIR WORK FOR THE TIMELY COMPLETION OF THE PROJECT. THIS SCHEDULE SHALL INDICATE ALL ORDERING LEAD TIMES, LENGTH OF TIME FOR EACH PHASE, ITS START AND COMPLETION, AND THE FINAL COMPLETION DATE.

12. THE CONTRACTORS, THEIR SUBCONTRACTORS, OR ANY OTHER CONTRACTOR INVOLVED IN THIS PROJECT SHALL TAKE NOTE THAT ANY COST CAUSED BY DEFECTIVE WORK AS A RESULT OF BUT NOT LIMITED TO INFERIOR WORKMANSHIP OR MATERIALS, IMPROPER SCHEDULING OR DELINQUENT ORDERING, SHALL BE BORNE BY THE PARTY RESPONSIBLE.

13. THE CONTRACTORS SHALL FURNISH WEEKLY FIELD PROGRESS REPORTS TO THE ARCHITECT FOR ALL PHASES OF CONSTRUCTION.

14. CONTRACTORS SHALL FILE WITH THE DEPARTMENT OF BUILDING INSPECTION, PAY FILING FEES OR DEPOSITS AND OBTAIN BUILDING PERMITS, SPECIFIC TRADE PERMITS, LICENSES AND APPROVALS.

15. ALL CONSTRUCTION TO BE AS PER ALL APPLICABLE AND GOVERNING FEDERAL, STATE AND LOCAL CODES AND ORDINANCES AND AUTHORITIES, INCLUDING ADA COMPLIANCE.

16. ALL DRAWINGS ARE DRAWN TO SCALE AS MUCH AS POSSIBLE BUT ARE NOT INTENDED TO BE, AND SHOULD NOT BE, SCALED.

17. ALL CONTRACTORS SHALL FURNISH AND INSTALL ALL REQUIREMENTS FOR SAFETY TO MEET OR EXCEED OSHA REQUIREMENTS.

18. CONTRACTORS SHALL COORDINATE ALL WORK TO ALLOW ACCESSIBILITY AND USE OF ALL ADJACENT SPACES.

19. DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING CONSTRUCTION THAT IS TO REMAIN.

20. LANDSCAPE SHRUBS AND TREES TO REMAIN MUST BE PROTECTED FROM DAMAGE.

21. CONTRACTORS ARE TO COORDINATE WITH OWNER'S SEPERATE CONTRACTORS FOR DATA/PHONE, CABLE AND SECURITY SYSTEM INSTALLATION.

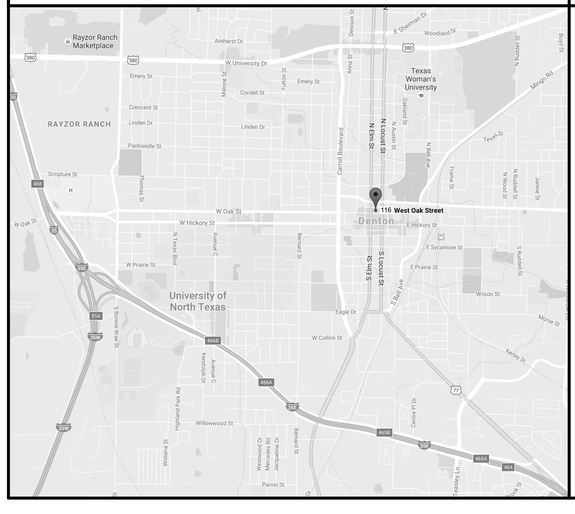
22. GENERAL CONTRACTOR IS TO PAY FOR ALL MATERIALS TESTING AND H.V.A.C. TESTING AND BALANCING. THESE ARE TO INDEPENDENT AGENCIES.

23. CONTRACTOR IS TO POWER WASH SPRAY CLEAN ALL EXISTING SIDEWALKS AND CURBS TO REMAIN.

24. UPON COMPLETION OF THE PROJECT, CONTRACTORS IS TO CLEAN ALL NEW AND EXISTING CONSTRUCTION SHOWN TO REMAIN.

25. ALL GENERAL NOTES APPLY TO ALL SHEETS.

LOCATION MAP


Rayzor Ranch Marketplace
Amherst Dr
W University Dr
Emery St
Cordell St
Crescent St
Linden Dr
Panhandle St
Scripture St
RAYZOR RANCH
Texas Woman's University
Carroll Boulevard
N Locust St
N Elm St
W Oak St
W Hickory St
E Hickory St
116 West Oak Street
Denton
E Sycamore St
W Prairie St
E Prairie St
S Locust St
S Elm St
University of North Texas
Eagle Dr
W Collins St
Wilson St
Willowwood St
Highland Park Rd
Parvin St
Woodland St
Mingo Rd
Texas St
Monroe St
Locust St
Elm St
Bonnie Brae St
Avenue C
Bernard St
Malone St
Jagoe St
Cemetery Rd
Kerley St
Morse St
Mayhill Rd
Sherman Dr
Denson Dr
Avery Dr
Fulton St
Malone St
Jackson St
Kings Rd
Kendolph St
Westwood Dr
Meadowood Dr
Jacqueline St
Wilshire St
Bell Ave
Ruddell St
Stuart Dr
Hickory St
Locust St
Elm St
Avenue C
Bernard St
Bonnie Brae St
Malone St
Jagoe St
Cemetery Rd
Kerley St
Morse St
Wilson St
Eagle Dr
Willowwood St
Highland Park Rd
Parvin St
Kingsley Ln
Bell Ave
Ruddell St
Stuart Dr
380
77
35W
35E
35W
35E
114
114A
288
288A
288A
114
114A
288
288A
288A
114
114A
288
288A
288A

CHAPTER 3: BUILDING BLOCKS

302 Floor or Ground Surfaces

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture.

Pile height shall be 1/2 inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed exposed edge. Carpet edge trim shall comply with 303.

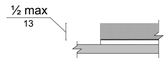


Figure 302.2 Carpet Pile Height

302.3 Openings. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

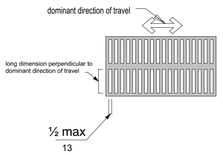


Figure 302.3 Elongated Openings in Floor or Ground Surfaces

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.



Figure 303.2 Vertical Change in Level

303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

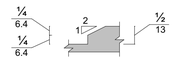


Figure 303.3 Beveled Change in Level

304 Turning Space

304.3.1 Circular Space. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.

304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

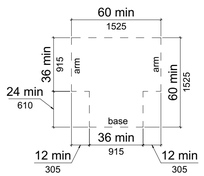


Figure 304.3.2 T-Shaped Turning Space

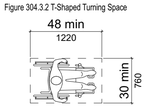


Figure 305.3 Clear Floor or Ground Space

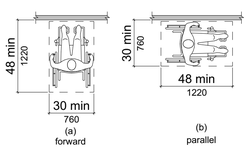


Figure 305.5 Position of Clear Floor or Ground Space

305.7.1 Forward Approach. Alcoves shall be 36 inches (915 mm)wide minimum where the depth exceeds 24 inches (610 mm).

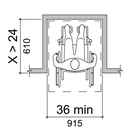


Figure 305.7.1 Maneuvering Clearance in an Alcove, Forward Approach

305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

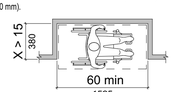


Figure 305.7.2 Maneuvering Clearance in an Alcove, Parallel Approach

306 Knee and Toe Clearance

306.2 Toe Clearance.

306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm) above the finish floor or ground shall be considered toe clearance and shall comply with 306.2.

306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an element.

306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element.

306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.

306.2.5 Width. Toe clearance shall be 30 inches (760 mm) wide minimum.

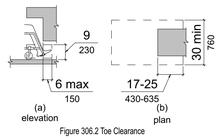


Figure 306.2 Toe Clearance

306.3 Knee Clearance.

306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground shall be considered knee clearance and shall comply with 306.3.

306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the finish floor or ground.

306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.

306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.

306.3.5 Width. Knee clearance shall be 30 inches (760 mm) wide minimum.

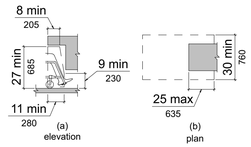


Figure 306.3 Knee Clearance

307 Protruding Objects

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.

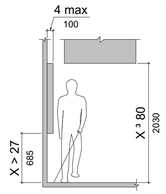


Figure 307.2 Limits of Protruding Objects

307.3 Post-Mounted Objects. Free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches (305 mm) maximum when located 27 inches (685 mm) minimum and 80 inches (2030 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the finish floor or ground.

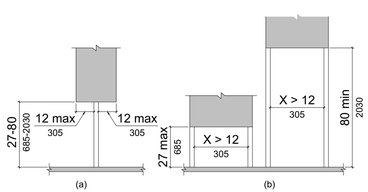


Figure 307.3 Post-Mounted Protruding Objects

307.4 Vertical Clearance. Vertical clearance shall be 80 inches (2030 mm) high minimum. Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm) high. The leading edge of such guardrail or barrier shall be located 27 inches (685 mm) maximum above the finish floor or ground.

EXCEPTION: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

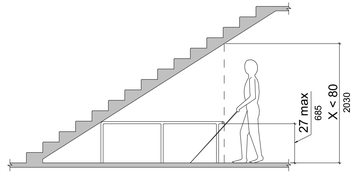


Figure 307.4 Vertical Clearance

308 Reach Ranges

Children's Reach Ranges

Forward or Side Reach	High (maximum)	Low (minimum)
Ages 3 and 4	36 in (915 mm)	20 in (510 mm)
Ages 5 through 8	40 in (1015 mm)	18 in (455 mm)
Ages 9 through 12	44 in (1120 mm)	16 in (405 mm)

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

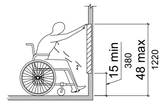


Figure 308.2.2 Obstructed High Forward Reach

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.

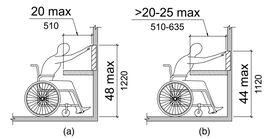


Figure 308.3.1 Unobstructed Side Reach

308.3 Side Reach.

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

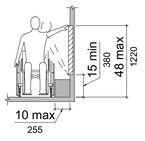


Figure 308.2.2 Obstructed High Forward Reach

308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

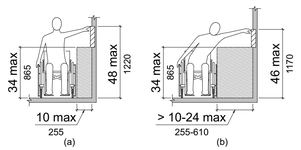


Figure 308.3.2 Obstructed High Side Reach

309 Operable Parts

309.2 Clear Floor Space. A clear floor or ground space complying with 305 shall be provided.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in 308.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

CHAPTER 4: ACCESSIBLE ROUTES

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

Advisory 402.2 Components. Walking surfaces must have running slopes not steeper than 1:20, see 403.3. Other components of accessible routes, such as ramps (405) and curb ramps (406), are permitted to be more steeply sloped.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

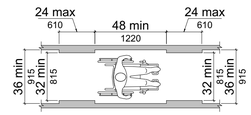


Figure 403.5.1 Clear Width of an Accessible Route

403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

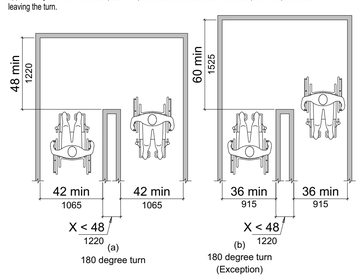


Figure 403.5.2 Clear Width at Turn

403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum.

404 Doors, Doorways, and Gates

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

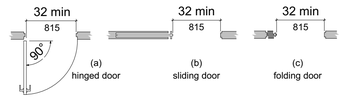


Figure 404.2.3 Clear Width of Doorways

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

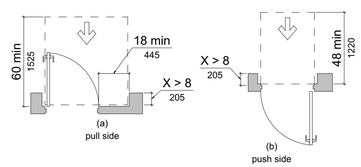


Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

404.2.6 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of doors or gates swinging into the space.

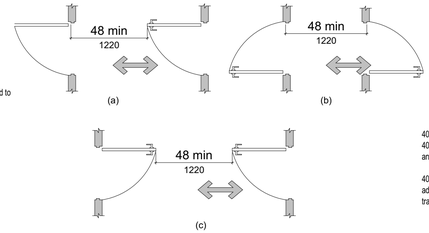


Figure 404.2.6 Doors in Series and Gates in Series

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.

2. Sliding or folding doors: 5 pounds (22.2 N) maximum.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

404.3 Automatic and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with 404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10 (incorporated by reference, see "Referenced Standards" in Chapter 1). Low-energy and power-assisted doors shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

404.3.2 Maneuvering Clearance. Clearances at power-assisted doors and gates shall comply with 404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with 404.2.4.

404.3.7 Revolving Doors, Revolving Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

405 Ramps

405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum.

405.7 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

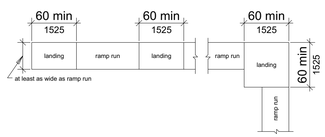


Figure 405.7 Ramp Landings

405.7.1 Slope. Landings shall have slope no steeper than 1:48. Changes in level are not permitted.

405.7.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.

405.7.3 Length. The landing clear length shall be 60 inches (1525 mm) long minimum.

405.7.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum.

405.7.5 Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by 404.2.4 and 404.3.2 shall be permitted to overlap the required landing

405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with 505.

405.9 Edge Protection. Edge protection complying with 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

405.9.1 Extended Floor or Ground Surface. The floor or ground surface of the ramp run or landing shall extend 12 inches (305 mm) minimum beyond the inside face of a handrail complying with 505.

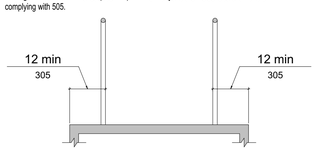


Figure 405.9.1 Extended Floor or Ground Surface Edge Protection

405.9.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 4 inch (100 mm) diameter sphere, where any portion of the sphere is within 4 inches (100 mm) of the finish floor or ground surface.

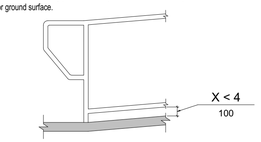


Figure 405.9.2 Curb or Barrier Edge Protection

406 Curb Ramps

406.1 General. Curb ramps on accessible routes shall comply with 406, 405.2 through 405.5, and 405.10.

406.2 Counter Slope. Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.

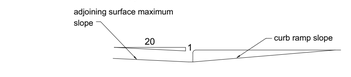


Figure 406.2 Counter Slope of Surfaces Adjacent to Curb Ramps

406.3 Sides of Curb Ramps. Where provided, curb ramp flares shall not be steeper than 1:10.

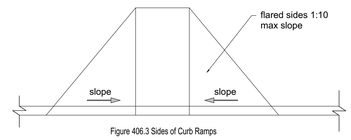


Figure 406.3 Sides of Curb Ramps

406.4 Landings. Landings shall be provided at the tops of curb ramps. The landing clear length shall be 36 inches (915 mm) minimum. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.

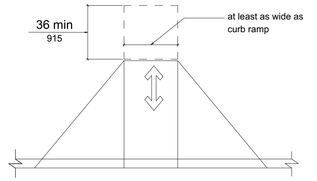


Figure 406.4 Landings at the Top of Curb Ramps

406.5 Location. Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.6 Diagonal Curb Ramps. Diagonal or corner type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a clear space 48 inches (1220 mm) minimum outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the curb ramp and within the marked crossing.

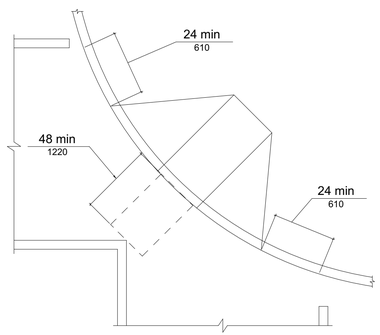


Figure 406.6 Diagonal or Corner Type Curb Ramps

406.7 Islands. Raised islands in crossings shall be cut through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) long minimum by 36 inches (915 mm) wide minimum at the top of the curb ramp in the part of the island intersected by the crossings. Each 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum area shall be oriented so that the 48 inch (1220 mm) minimum length is in the direction of the running slope of the curb ramp it serves. The 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum areas and the accessible route shall be permitted to overlap.

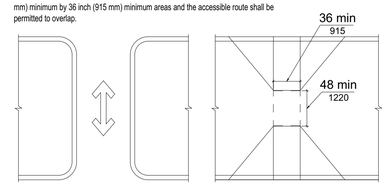


Figure 406.7 Islands in Crossings

These plans are intended to provide the basic construction information necessary to successfully construct the project described herein. These plans have been prepared and checked by the builder or person in authority of this project. Any discrepancy, error, and/ or omissions, if any, are to be brought to the attention of the Designer prior to any construction. The Designer shall not be responsible for any errors, omissions, or discrepancies in these construction documents which may conflict with same, the Builder assumes full responsibility for verifying all conditions and dimensions. THESE PLANS ARE STRICTLY COPYRIGHTED AND SHALL REMAIN THE PROPERTY OF WILLIAM PECK & ASSOCIATES, INC. AND ARE NOT TO BE TRACED, REUSED OR REPRODUCED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN PERMISSION OF WILLIAM PECK & ASSOCIATES, INC. ALL RIGHTS RESERVED

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Lewisville, Tx

REVISIONS
DATE

ACCESSIBILITY NOTES

ISSUE DATE:

Scale: REF. PLAN
Drawn: JB
Job: 19-057-001
Sheet Number: A-002

407 Elevators

407.1 General. Elevators shall comply with 407 and with ASME A17.1 (incorporated by reference, see "Referenced Standards" in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

EXCEPTION: Existing conditions don't have to comply

407.2.1.2 Size. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension.

407.2.2.1 Visible and Audible Signals. A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call and the car's direction of travel. Where in-car signals are provided, they shall be visible from the floor area adjacent to the hall call buttons.

407.2.2.2 Visible Signals. Visible signal fixtures shall be centered at 72 inches (1830 mm) minimum above the finish floor or ground. The visible signal elements shall be 2 1/2 inches (64 mm) minimum measured along the vertical centerline of the element. Signals shall be visible from the floor area adjacent to the hall call button.

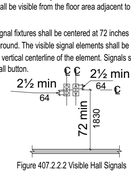


Figure 407.2.2.2 Visible Hall Signals

407.2.3.1 Floor Designation. Floor designations complying with 703.2 and 703.4.1 shall be provided on both jambs of elevator hoistway entrances. Floor designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum. A tactile star shall be provided on both jambs at the main entry level.

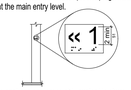


Figure 407.2.3.1 Floor Designations on Jambs of Elevator Hoistway Entrances

407.2.3.2 Car Designations. Destination-oriented elevators shall provide tactile car identification complying with 703.2 on both jambs of the hoistway immediately below the floor designation. Car designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum.

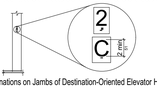


Figure 407.2.3.2 Car Designations on Jambs of Destination-Oriented Elevator Hoistway Entrances

407.3.3.1 Height. The device shall be activated by sensing an obstruction passing through the opening at 5 inches (125 mm) nominal and 29 inches (735 mm) nominal above the finish floor.

407.3.3.3 Duration. Door reopening devices shall remain effective for 20 seconds minimum.

407.3.4 Door and Signal Timing. The minimum acceptable time from notification that a car is answering a call or notification of the car assigned at the means for the entry of destination information until the doors of that car start to close shall be calculated from the following equation:

T = D/(1.5 ft/s) or T = D/(455 mm/s) + 5 seconds minimum where T equals the total time in seconds and D equals the distance (in feet or millimeters) from the point in the lobby or corridor 60 inches (1525 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door.

407.3.5 Door Delay. Elevator doors shall remain fully open in response to a car call for 3 seconds

407.3.6 Width. The width of elevator doors shall comply with Table 407.4.1.

407.4 Elevator Car Requirements. Elevator cars shall comply with 407.4.

407.4.1 Car Dimensions. Inside dimensions of elevator cars and clear width of elevator doors shall comply with Table 407.4.1.

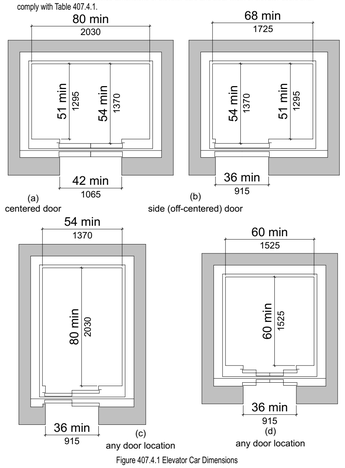


Figure 407.4.1 Elevator Car Dimensions

407.4.3 Platform to Hoistway Clearance. The clearance between the car platform sill and the edge of any hoistway landing shall be 1 1/4 inch (32 mm) maximum.

407.4.4 Leveling. Each car shall be equipped with a self-leveling feature that will automatically bring and maintain the car at floor landings within a tolerance of 1/2 inch (13 mm) under rated loading to zero loading conditions.

407.4.5 Illumination. The level of illumination at the car controls, platform, car threshold and car landing sill shall be 5 foot candles (54 lux) minimum.

407.4.6 Elevator Car Controls. Where provided, elevator car controls shall comply with 407.4.6 and 309.4.

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in 308.

407.4.6.2 Buttons. Car control buttons with floor designations shall comply with 407.4.6.2 and shall be raised or flush.

407.4.6.2.1 Size. Buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

407.4.6.4.1 Height. Emergency control buttons shall have their centerlines 35 inches (890 mm) minimum above the finish floor.

407.4.7.1.1 Type. Control buttons shall be identified by tactile characters complying with 703.2.

407.4.7.1.3 Symbols. The control button for the emergency stop, alarm, door open, door close, main entry floor, and phone, shall be identified with tactile symbols as shown in Table 407.4.7.1.3.

407.4.8.1.1 Size. Characters shall be 1/2 inch (13 mm) high minimum.

407.4.8.2.2 Signal Level. The verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the annunciator.

407.4.8.2.3 Frequency. The verbal annunciator shall have a frequency of 300 Hz minimum to 3000 Hz maximum.

408 Limited-Use/Limited-Application Elevators

408.1 General. Limited-use/limited-application elevators shall comply with 408 and with ASME A17.1 (incorporated by reference, see "Referenced Standards" in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

408.2 Elevator Landings. Landings serving limited-use/limited-application elevators shall comply with 408.2.

408.2.1 Call Buttons. Elevator call buttons and keypads shall comply with 407.2.1.

408.2.2 Hall Signals. Hall signals shall comply with 407.2.2.

408.2.3 Hoistway Signs. Signs at elevator hoistways shall comply with 407.2.3.1.

408.3 Elevator Doors. Elevator hoistway doors shall comply with 408.3.

408.3.1 Sliding Doors. Sliding hoistway and car doors shall comply with 407.3.1 through 407.3.3 and 408.4.1.

408.3.2 Swinging Doors. Swinging hoistway doors shall open and close automatically and shall comply with 404, 407.3.2 and 408.3.2.

408.3.2.1 Power Operation. Swinging doors shall be power-operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

408.3.2.2 Duration. Power-operated swinging doors shall remain open for 20 seconds minimum when activated.

408.4 Elevator Cars. Elevator cars shall comply with 408.4.

408.4.1 Car Dimensions and Doors. Elevator cars shall provide a clear width 42 inches (1065 mm) minimum and a clear depth 54 inches (1370 mm) minimum. Car doors shall be positioned at the narrow ends of cars and shall provide 32 inches (815 mm) minimum clear width.

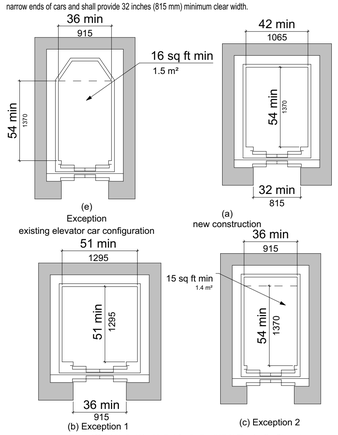


Figure 408.4.1 Limited-Use/Limited-Application (LULA) Elevator Car Dimensions

408.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

408.4.3 Platform to Hoistway Clearance. The platform to hoistway clearance shall comply with 407.4.3.

408.4.4 Leveling. Elevator car leveling shall comply with 407.4.4.

408.4.5 Illumination. Elevator car illumination shall comply with 407.4.5.

408.4.6 Car Controls. Elevator car controls shall comply with 407.4.6. Control panels shall be centered on a side wall.

408.4.7 Designations and Indicators of Car Controls. Designations and indicators of car controls shall comply with 407.4.7.

408.4.8 Emergency Communications. Car emergency signaling devices complying with 407.4.9 shall be provided.

409 Private Residence Elevators

409.1 General. Private residence elevators that are provided within a residential dwelling unit required to provide mobility features complying with 809.2 through 809.4 shall comply with 409 and with ASME A17.1 (incorporated by reference, see "Referenced Standards" in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

409.2 Call Buttons. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension and shall comply with 309.

409.3 Elevator Doors. Hoistway doors, car doors, and car gates shall comply with 409.3 and 404.

409.3.1 Power Operation. Elevator car and hoistway doors and gates shall be power operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1). Power operated doors and gates shall remain open for 20 seconds minimum when activated.

409.3.2 Location. Elevator car doors or gates shall be positioned at the narrow end of the clear floor spaces required by 409.4.1.

409.4 Elevator Cars. Private residence elevator cars shall comply with 409.4.

409.4.1 Inside Dimensions of Elevator Cars. Elevator cars shall provide a clear floor space of 36 inches (915 mm) minimum by 48 inches (1220 mm) minimum and shall comply with 305.

409.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

409.4.3 Platform to Hoistway Clearance. The clearance between the car platform and the edge of any landing sill shall be 1 1/2 inch (38 mm) maximum.

409.4.4 Leveling. Each car shall automatically stop at a floor landing within a tolerance of 1/2 inch (13 mm) under rated loading to zero loading conditions.

409.4.5 Illumination Levels. Elevator car illumination shall comply with 407.4.5.

409.4.6 Car Controls. Elevator car control buttons shall comply with 409.4.6, 309.3, 309.4, and shall be raised or flush.

409.4.6.1 Size. Control buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

409.4.6.2 Location. Control panels shall be on a side wall, 12 inches (305 mm) minimum from any adjacent wall.

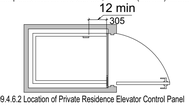


Figure 409.4.6.2 Location of Private Residence Elevator Control Panel

409.4.7 Emergency Communications. Emergency two-way communication systems shall comply with

409.4.7.1 Type. A telephone and emergency signal device shall be provided in the car.

409.4.7.2 Operable Parts. The telephone and emergency signaling device shall comply with 309.3 and 309.4.

409.4.7.3 Compartment. If the telephone or device is in a closed compartment, the compartment door hardware shall comply with 309.

409.4.7.4 Cord. The telephone cord shall be 29 inches (735 mm) long minimum.

410 Platform Lifts

410.1 General. Platform lifts shall comply with ASME A18.1 (1999 edition or 2003 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1). Platform lifts shall not be attendant-operated and shall provide unassisted entry and exit from the lift.

Advisory 410.1 General. Inclined stairway chairlifts and inclined and vertical platform lifts are available for short-distance vertical transportation. Because an accessible route requires an 80 inch (2030 mm) vertical clearance, care should be taken in selecting lifts as they may not be equally suitable for use by people using wheelchairs and people standing. If a lift does not provide 80 inch (2030 mm) vertical clearance, it cannot be considered part of an accessible route in new construction.

The ADA and other Federal civil rights laws require that accessible features be maintained in working order so that they are accessible to and usable by those people they are intended to benefit. Building owners are reminded that the ASME A18 Safety Standard for Platform Lifts and Stairway Chairlifts requires routine maintenance and inspections. Isolated or temporary interruptions in service due to maintenance or repairs may be unavoidable; however, failure to take prompt action to effect repairs could constitute a violation of Federal laws and these requirements.

410.2 Floor Surfaces. Floor surfaces in platform lifts shall comply with 302 and 303.

410.3 Clear Floor Space. Clear floor space in platform lifts shall comply with 305.

410.4 Platform to Runway Clearance. The clearance between the platform sill and the edge of any runway landing shall be 1 inch (32 mm) maximum.

410.5 Operable Parts. Controls for platform lifts shall comply with 309.

410.6 Doors and Gates. Platform lifts shall have low-energy power-operated doors or gates complying with 404.3. Doors shall remain open for 20 seconds minimum. End doors and gates shall provide a clear width 32 inches (815 mm) minimum. Side doors and gates shall provide a clear width 42 inches (1065 mm) minimum.

EXCEPTION: Platform lifts serving two landings maximum and having doors or gates on opposite sides shall be permitted to have self-closing manual doors or gates.

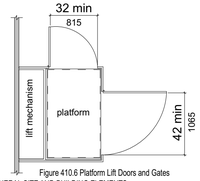


Figure 410.6 Platform Lift Doors and Gates

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

501 General

501.1 Scope. The provisions of Chapter 5 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

502 Parking Spaces

502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 Vehicle Spaces. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

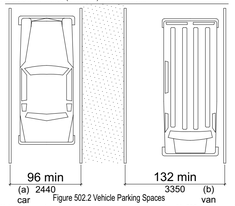


Figure 502.2 Vehicle Parking Spaces

502.3 Access Aisle. Access aisles serving parking spaces shall comply with 502.3. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

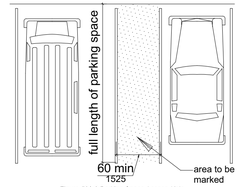


Figure 502.3 Parking Space Access Aisle

502.3.1 Width. Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) wide minimum.

502.3.2 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

502.3.4 Location. Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

502.4 Floor or Ground Surfaces. Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

502.5 Vertical Clearance. Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

502.6 Identification. Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches (1525 mm) minimum above the finish floor or ground surface measured to the bottom of the sign.

502.7 Relationship to Accessible Routes. Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

503 Passenger Loading Zones

503.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) wide minimum and 20 feet (6100 mm) long minimum.

503.3 Access Aisle. Passenger loading zones shall provide access aisles complying with 503 adjacent to the vehicle pull-up space. Access aisles shall adjoin an accessible route and shall not overlap the vehicular way.

503.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) wide minimum.

503.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

503.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

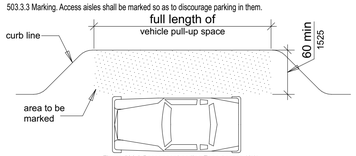


Figure 503.3 Passenger Loading Zone Access Aisle

503.4 Floor and Ground Surfaces. Vehicle pull-up spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the vehicle pull-up space they serve. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

503.5 Vertical Clearance. Vehicle pull-up spaces, access aisles serving them, and a vehicular route from an entrance to the passenger loading zone, and from the passenger loading zone to a vehicular exit shall provide a vertical clearance of 114 inches (2895 mm) minimum.

504 Stairways

504.1 General. Stairs that are part of the means of egress is required to comply with 504

504.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum. Treads shall be 11 inches (280 mm) deep minimum.

504.3 Open Risers. Open risers are not permitted.

504.4 Tread Surface. Stair treads shall comply with 302. Changes in level are not permitted.

504.5 Nosings. The radius of curvature at the leading edge of the tread shall be 1/2 inch (13 mm) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 1 1/2 inches (38 mm) maximum over the tread below.

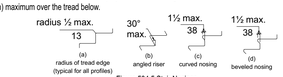


Figure 504.5 Stair Nosings

504.6 Handrails. Stairs shall have handrails complying with 505.

504.7 Wet Conditions. Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.

505 Handrails

505.1 General. Handrails provided along walking surfaces complying with 403, required at ramps complying with 405, and required at stairs complying with 504 shall comply with 505.

Advisory 505.1 General. Handrails are required on ramp runs with a rise greater than 6 inches (150 mm) (see 405.8) and on certain stairways (see 504). Handrails are not required on walking surfaces with running slopes less than 1:20. However, handrails are required to comply with 505 when they are provided on walking surfaces with running slopes less than 1:20 (see 403.6). Sections 505.2, 505.3, and 505.10 do not apply to handrails provided on walking surfaces with running slopes less than 1:20 as these sections only reference requirements for ramps and stairs.

505.2 Where Required. Handrails shall be provided on both sides of stairs and ramps.

505.3 Continuity. Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

505.4 Height. Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

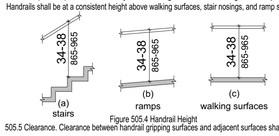


Figure 505.4 Handrail Height

505.5 Clearance. Clearance between handrail gripping surfaces and adjacent surfaces shall be 1 1/2 inches (38 mm) minimum.

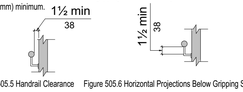


Figure 505.5 Handrail Clearance Figure 505.6 Horizontal Projections Below Gripping Surface

505.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1 1/2 inches (38 mm) minimum below the bottom of the handrail gripping surface.

505.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

505.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6 1/4 inches (160 mm) maximum, and a cross-section dimension of 2 1/4 inches (57 mm) maximum.

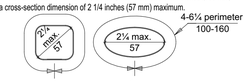


Figure 505.7.2 Handrail Non-Circular Cross Section

505.8 Surfaces. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

505.9 Fittings. Handrails shall not rotate within their fittings.

505.10 Handrail Extensions. Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs in accordance with 505.10.

505.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

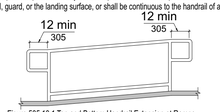


Figure 505.10.1 Top and Bottom Handrail Extension at Ramps

505.10.2 Top Extension at Stairs. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

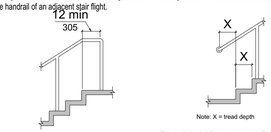


Figure 505.10.2 Top Handrail Extension at Stairs Figure 505.10.3 Bottom Handrail Extension at Stairs

505.10.3 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

602 Drinking Fountains

602.2 Clear Floor Space. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

EXCEPTION: A parallel approach complying with 305 shall be permitted at units for children's use where the spout is 30 inches (760 mm) maximum above the finish floor or ground and is 3 1/2 inches (90 mm) maximum from the front edge of the unit, including bumpers.

602.3 Operable Parts. Operable parts shall comply with 309.

602.4 Spout Height. Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.5 Spout Location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.

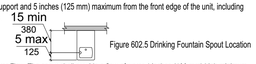


Figure 602.5 Drinking Fountain Spout Location

602.6 Water Flow. The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

602.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

603 Toilet and Bathing Rooms

603.2 Clearances. Clearances shall comply with 603.2.

603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room.

603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.



Figure 604.2 Water Closet Location

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.



Figure 604.3.1 Size of Clearance at Water Closet

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

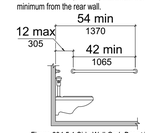


Figure 604.5.1 Side Wall Grab Bar at Water Closets Figure 604.5.2 Rear Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

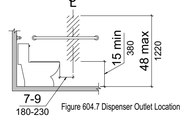


Figure 604.7 Dispenser Outlet Location

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

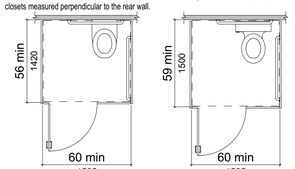


Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) minimum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) minimum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

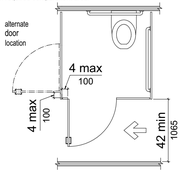


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm)deep

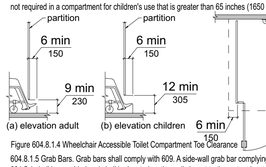


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

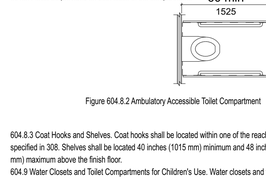


Figure 604.8.2 Ambulatory Accessible Toilet Compartment

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.

604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.

604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5.

604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605 Urinals

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.



Figure 605.2 Height and Depth of Urinals

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided.

605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

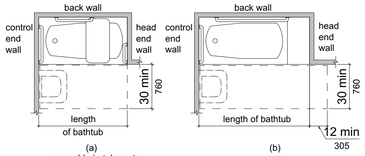
606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

607 Bathtubs

607.2 Clearance. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory complying with 606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.


back wall
control
end
wall
head
end
wall
30 min
760
length

607.4.1.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (380 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

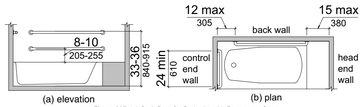


Figure 607.4.1 Grab Bars for Bathtubs with Permanent Seats

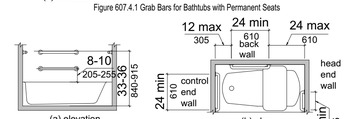


Figure 607.4.2 Grab Bars for Bathtubs with Removable In-Tub Seats

607.4.2 Bathtubs Without Permanent Seats. For bathtubs without permanent seats, grab bars shall comply with 607.4.2.

607.4.2.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 24 inches (610 mm) long minimum and shall be installed 24 inches (610 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

607.4.2.3 Head End Wall. A grab bar 12 inches (305 mm) long minimum shall be installed on the head end wall at the front edge of the bathtub.

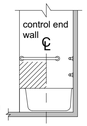


Figure 607.5 Bathtub Control Location

607.5 Controls. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Controls shall comply with 309.4.

607.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

607.7 Bathtub Enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.

608 Shower Compartments

608.2 Size and Clearances for Shower Compartments. Shower compartments shall have sizes and clearances complying with 608.2.

608.2.1 Transfer Type Shower Compartments. Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (915 mm) wide minimum by 48 inches (1220 mm) long minimum measured from the control wall shall be provided.

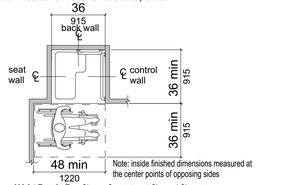


Figure 608.2.1 Transfer Type Shower Compartment Size and Clearance

608.2.2 Standard Roll-In Type Shower Compartments. Standard roll-in type shower compartments shall be 30 inches (760 mm) wide minimum by 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches (1525 mm) wide minimum entry on the face of the shower compartment.

608.2.2.1 Clearance. A 30 inch (760 mm) wide minimum by 60 inch (1525 mm) long minimum clearance shall be provided adjacent to the open face of the shower compartment.



Figure 608.2.2 Standard Roll-In Type Shower Compartment Size and Clearance

608.2.3 Alternate Roll-In Type Shower Compartments. Alternate roll-in type shower compartments shall be 36 inches (915 mm) wide and 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (915 mm) wide minimum entry shall be provided at one end of the long side of the compartment.

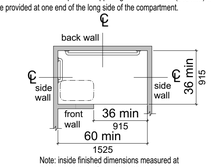


Figure 608.2.3 Alternate Roll-In Type Shower Compartment Size and Clearance

608.3 Grab Bars. Grab bars shall comply with 609 and shall be provided in accordance with 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor.

608.3.1 Transfer Type Shower Compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (455 mm) from the control wall.

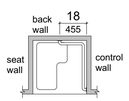


Figure 608.3.1 Grab Bars for Transfer Type Showers

608.3.2 Standard Roll-In Type Shower Compartments. Where a seat is provided in standard roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall opposite the seat. Grab bars shall not be provided above the seat. Where a seat is not provided in standard roll-in type shower compartments, grab bars shall be provided on three walls. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

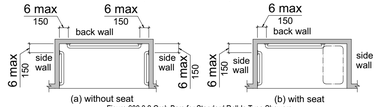


Figure 608.3.2 Grab Bars for Standard Roll-In Type Showers

608.3.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

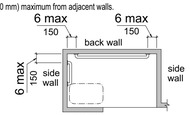


Figure 608.3.3 Grab Bars for Alternate Roll-In Type Showers

608.4 Seats. A folding or non-folding seat shall be provided in transfer type shower compartments. A folding seat shall be provided in roll-in type showers required in transient lodging guest rooms with mobility features complying with 806.2. Seats shall comply with 610.

608.5 Controls. Controls, faucets, and shower spray units shall comply with 309.4.

608.5.1 Transfer Type Shower Compartments. In transfer type shower compartments, the controls, faucets, and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm) maximum from the centerline of the seat toward the shower opening.

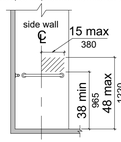


Figure 608.5.1 Transfer Type Shower Compartment Control Location

608.5.2 Standard Roll-In Type Shower Compartments. In standard roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be installed on the back wall adjacent to the seat wall and shall be located 27 inches (685 mm) maximum from the seat wall.

Figure 608.5.2 Standard Roll-In Type Shower Compartment Control Location

608.5.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be located on the side wall shower spray unit shall be installed on the side wall farthest from the compartment entry.

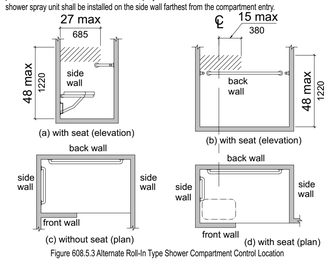


Figure 608.5.3 Alternate Roll-In Type Shower Compartment Control Location

608.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Shower spray units shall deliver water that is 120°F (49°C) maximum.

608.7 Thresholds. Thresholds in roll-in type shower compartments shall be 1/2 inch (13 mm) high maximum in accordance with 303. In transfer type shower compartments, thresholds 1/2 inch (13 mm) high maximum shall be beveled, rounded, or vertical.

608.8 Shower Enclosures. Enclosures for shower compartments shall not obstruct controls, faucets, and shower spray units or obstruct transfer from wheelchairs onto shower seats.

609 Grab Bars

609.1 General. Grab bars in toilet facilities and bathing facilities shall comply with 609.

609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2.

609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

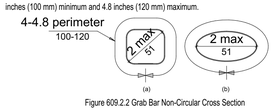


Figure 609.2.2 Grab Bar Non-Circular Cross Section

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.

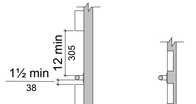


Figure 609.3 Spacing of Grab Bars

609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

610 Seats

610.2 Bathtub Seats. The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement. Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.

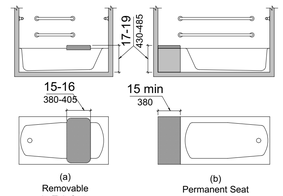


Figure 610.2 Bathtub Seats

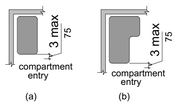


Figure 610.3 Extent of Seat

610.3 Shower Compartment Seats. Where a seat is provided in a standard roll-in shower compartment, it shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. Where a seat is provided in an alternate roll-in type shower compartment, it shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry. In transfer-type showers, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. Seats shall comply with 610.3.1 or 610.3.2.

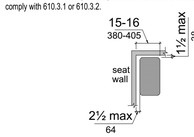


Figure 610.3.1 Rectangular Shower Seat

610.3.1 Rectangular Seats. The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1 1/2 inches (38 mm) maximum from the adjacent wall.

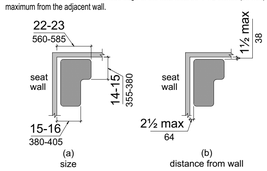


Figure 610.3.2 L-Shaped Shower Seat

610.3.2 L-Shaped Seats. The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches maximum (585 mm) from the main seat wall.

610.4 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

611 Washing Machines and Clothes Dryers

611.2 Clear Floor Space. A clear floor or ground space complying with 305 positioned for parallel approach shall be provided. The clear floor or ground space shall be centered on the appliance.

611.3 Operable Parts. Operable parts, including doors, lint screens, and detergent and bleach compartments shall comply with 309.

611.4 Height. Top loading machines shall have the door to the laundry compartment located 36 inches (915 mm) maximum above the finish floor. Front loading machines shall have the bottom of the opening to the laundry compartment located 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

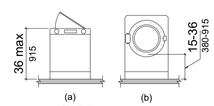


Figure 611.4 Height of Laundry Compartment Opening

612 Saunas and Steam Rooms

612.2 Bench. Where seating is provided in saunas and steam rooms, at least one bench shall comply with 903. Doors shall not swing into the clear floor space required by 903.2.

612.3 Turning Space. A turning space complying with 304 shall be provided within saunas and steam rooms

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".

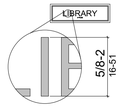


Figure 703.2.5 Height of Raised Characters

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

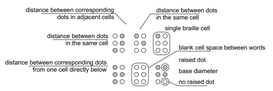


Figure 703.3.1 Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

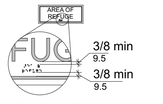


Figure 703.3.2 Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

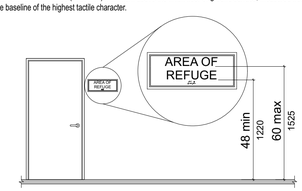


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

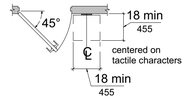


Figure 703.4.2 Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

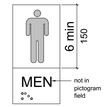


Figure 703.6.1 Pictogram Field
dark-on-light.

703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

704 Telephones

704.1 General. Public telephones shall comply with 704.

704.2 Wheelchair Accessible Telephones. Wheelchair accessible telephones shall comply with 704.2.

704.2.1 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided. The clear floor or ground space shall not be obstructed by bases, enclosures, or seats.

Advisory 704.2.1 Clear Floor or Ground Space. Because clear floor and ground space is required to be unobstructed, telephones, enclosures and related telephone book storage cannot encroach on the required clear floor or ground space and must comply with the provisions for protruding objects. (See Section 307).

704.2.1.1 Parallel Approach. Where a parallel approach is provided, the distance from the edge of the telephone enclosure to the face of the telephone unit shall be 10 inches (255 mm) maximum.

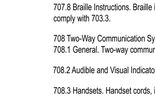


Figure 704.2.1.1 Parallel Approach to Telephone

Figure 704.2.1.2 Forward Approach to Telephone

704.2.1.2 Forward Approach. Where a forward approach is provided, the distance from the front edge of a counter within the telephone enclosure to the face of the telephone unit shall be 20 inches (510 mm) maximum.

704.2.2 Operable Parts. Operable parts shall comply with 309. Telephones shall have push-button controls where such service is available.

704.2.3 Telephone Directories. Telephone directories, where provided, shall be located in accordance with 309.

704.2.4 Cord Length. The cord from the telephone to the handset shall be 29 inches (735 mm) long minimum.

704.3 Volume Control Telephones. Public telephones required to have volume controls shall be equipped with a receive volume control that provides a gain adjustable up to 20 dB minimum. For incremental volume control, provide at least one intermediate step of 12 dB of gain minimum. An automatic reset shall be provided.

704.4 TTYs. TTYs required at a public pay telephone shall be permanently affixed within, or adjacent to, the telephone enclosure. Where an acoustic coupler is used, the telephone cord shall be sufficiently long to allow connection of the TTY and the telephone receiver.

704.4.1 Height. When in use, the touch surface of TTY keypads shall be 34 inches (865 mm) minimum above the finish floor.

704.5 TTY Shelf. Public pay telephones required to accommodate portable TTYs shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosure. The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a TTY and shall have 6 inches (150 mm) minimum vertical clearance above the area where the TTY is to be placed.

705 Detectable Warnings

705.1 General. Detectable warnings shall consist of a surface of truncated domes and shall comply with 705.

705.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inches (36 mm) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch (5.1 mm).

705.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inch (17 mm) minimum, measured between the most adjacent domes on a square grid.

705.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

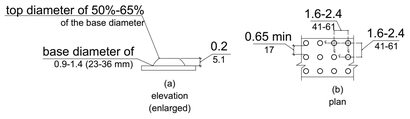


Figure 705.1 Size and Spacing of Truncated Domes

705.2 Platform Edges. Detectable warning surfaces at platform boarding edges shall be 24 inches (610 mm) wide and shall extend the full length of the public use areas of the platform.

706 Assistive Listening Systems

706.2 Receiver Jacks. Receivers required for use with an assistive listening system shall include a 1/8 inch (3.2 mm) standard mono jack.

706.3 Receiver Hearing-Aid Compatibility. Receivers required to be hearing-aid compatible shall interface with telecoils in hearing aids through the provision of neckloops.

706.4 Sound Pressure Level. Assistive listening systems shall be capable of providing a sound pressure level of 110 dB minimum and 118 dB maximum with a dynamic range on the volume control of 50 dB.

706.5 Signal-to-Noise Ratio. The signal-to-noise ratio for internally generated noise in assistive listening systems shall be 18 dB minimum.

706.6 Peak Clipping Level. Peak clipping shall not exceed 18 dB of clipping relative to the peaks of speech.

707 Automatic Teller Machines and Fare Machines

707.2 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided.

707.3 Operable Parts. Operable parts shall comply with 309. Unless a clear or correct key is provided, each operable part shall be able to be differentiated by sound or touch, without activation.

EXCEPTION: Drive-up only automatic teller machines and fare machines shall not be required to comply with 309.2 and 309.3.

707.4 Privacy. Automatic teller machines shall provide the opportunity for the same degree of privacy of input and output available to all individuals.

707.5 Speech Output. Machines shall be speech enabled. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all displayed information for full use shall be accessible to and independently usable by individuals with vision impairments. Speech shall be delivered through a mechanism that is readily available to all users, including but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or synthesized.

707.5.1 User Control. Speech shall be capable of being repeated or interrupted. Volume control shall be provided for the speech function.

707.5.2 Receipts. Where receipts are provided, speech output devices shall provide audible balance inquiry information, error messages, and all other information on the printed receipt necessary to complete or verify the transaction.

707.6 Input. Input devices shall comply with 707.6.

707.6.1 Input Controls. At least one tactilely discernible input control shall be provided for each function. Where provided, key surfaces not on active areas of display screens, shall be raised above surrounding surfaces. Where membrane keys are the only method of input, each shall be tactilely discernable from surrounding surfaces and adjacent keys.

707.6.2 Numeric Keys. Numeric keys shall be arranged in a 12-key ascending or descending telephone keypad layout. The number five key shall be tactilely distinct from the other keys.

707.6.3.1 Contrast. Function keys shall contrast visually from background surfaces. Characters and symbols on key surfaces shall contrast visually from key surfaces. Visual contrast shall be either light-on-dark or

707.6.3.2 Tactile Symbols. Function key surfaces shall have tactile symbols as follows: Enter or Proceed key: raised circle; Clear or Correct key: raised left arrow; Cancel key: raised letter ex; Add Value key: raised plus sign; Decrease Value key: raised minus sign.

707.7 Display Screen. The display screen shall comply with 707.7.

707.7.1 Visibility. The display screen shall be visible from a point located 40 inches (1015 mm) above the center of the clear floor space in front of the machine.

707.7.2 Characters. Characters displayed on the screen shall be in a sans serif font. Characters shall be 3/16 inch (4.8 mm) high minimum based on the uppercase letter "I". Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

707.8 Braille Instructions. Braille instructions for initiating the speech mode shall be provided. Braille shall comply with 703.3.

708 Two-Way Communication Systems

708.1 General. Two-way communication systems shall comply with 708.

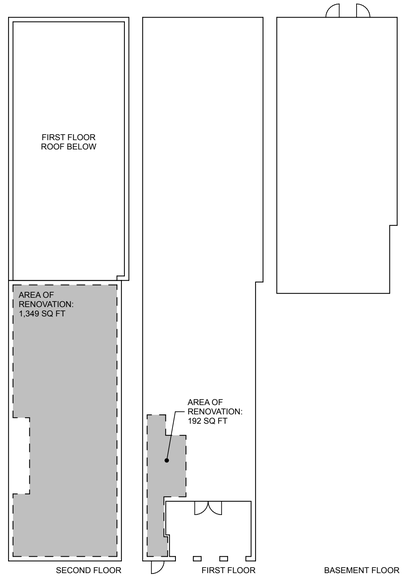
708.2 Audible and Visual Indicators. The system shall provide both audible and visual signals.

708.3 Handsets. Handset cords, if provided, shall be 29 inches (735 mm) long minimum.

708.4 Residential Dwelling Unit Communication Systems. Communications systems between a residential dwelling unit and a site, building, or floor entrance shall comply with 708.4.

708.4.1 Common Use or Public Use System Interface. The common use or public use system interface shall include the capability of supporting voice and TTY communication with the residential dwelling unit interface.

These plans are intended to provide the basic construction information necessary to successfully complete the project. Any discrepancy, error, and/or omissions found in the plans shall be brought to the attention of the Designer prior to any construction. If any are to be brought to the attention of the Designer prior to any construction. If any are to be brought to the attention of the Designer prior to any construction. If any are to



KEY PLAN

SCALE: NTS

EQUIPMENT SCHEDULE

NO.	ITEM NAME	QTY.	MANUFACTURER	MODEL	DIMENSIONS				COLD WATER	HOT WATER	DRAIN	GAS SUPPLY	MECHANICAL				ELECTRIC SERVICE				REMARKS
					WIDTH	DEPTH	HEIGHT	WEIGHT					SUPPLY	EXHAUST	DUCT SIZE		H.P.	VOLT	PHASE	AMP	NEMA CONFIG.	
01	CABINET, P.O.S.	1	GLASTENDER	PCB-24	24"	24"	37"															
02	COFFEE BREWER	1	CURTIS	G4TP1S63B3100	11.13"	20.75"	24.75"		X	X		-	-	-	-		-	120/220	1	13.8/12.2	-	
03	COFFEE GRINDER	1	MAHLKONIG	EK43 S																		
04	COOLER, UNDER COUNTER	1	GLASTENDER	C1FB72	72"	24 1/8"	36"		-	-	-	-	-	-	-			120	1	15	5-15P	
05	DRAIN BOARD, W/ GLASS RACK	1	GLASTENDER	DBGR-18	18"	24"	37"															
06	DUMP SINK, W/ DRAIN BOARD	1	GLASTENDER	SWB-18-DB	18"	24"	37"															
07	GLASS WASHER	1	GLASTENDER	GD24HT	24 1/4"	26 7/8"	36 1/4"	281 lb		X	5/8"	-	-	-	-		3/4	60	1			
08	HAND SINK, W/ PAPER TOWEL DISPENSER	1	GLASTENDER	HSB-12-AD	12"	24"	37"															
09	HOT WATER DISPENSER	1	CURTIS	G3 WB5NB	7.5"	24.38"	25.75"		X	X		-	-	-	-			120/220	1	12.5/22.7		
10	ICE BIN, W/ SPEED RAIL	1	GLASTENDER	IBA-24	24"	24"	37"															
11	LIQUOR DISPLAY, W/ SPEED RAIL	1	GLASTENDER	LDB-18S	18"	24"	37"															
12	SODA GUN	1	GLASTENDER	SHB-6	6"	24"	21"															

DOOR AND FRAME SCHEDULE

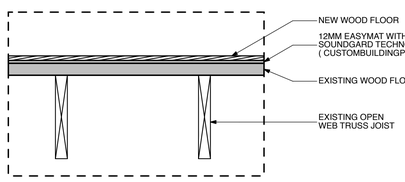
MARK	ROOM NAME	SIZE		HARDWARE		NOTES
		WIDTH	HEIGHT	SET NO	KEYSIDE RM NO	
D1	ENTRY LANDING	3'-0"	7'-0"	A		
D6	RESTROOM	3'-0"	8'-0"	B	RESTROOM	
D7		3'-0"	8'-0"	B	RESTROOM	

DOOR HARDWARE LEGEND:

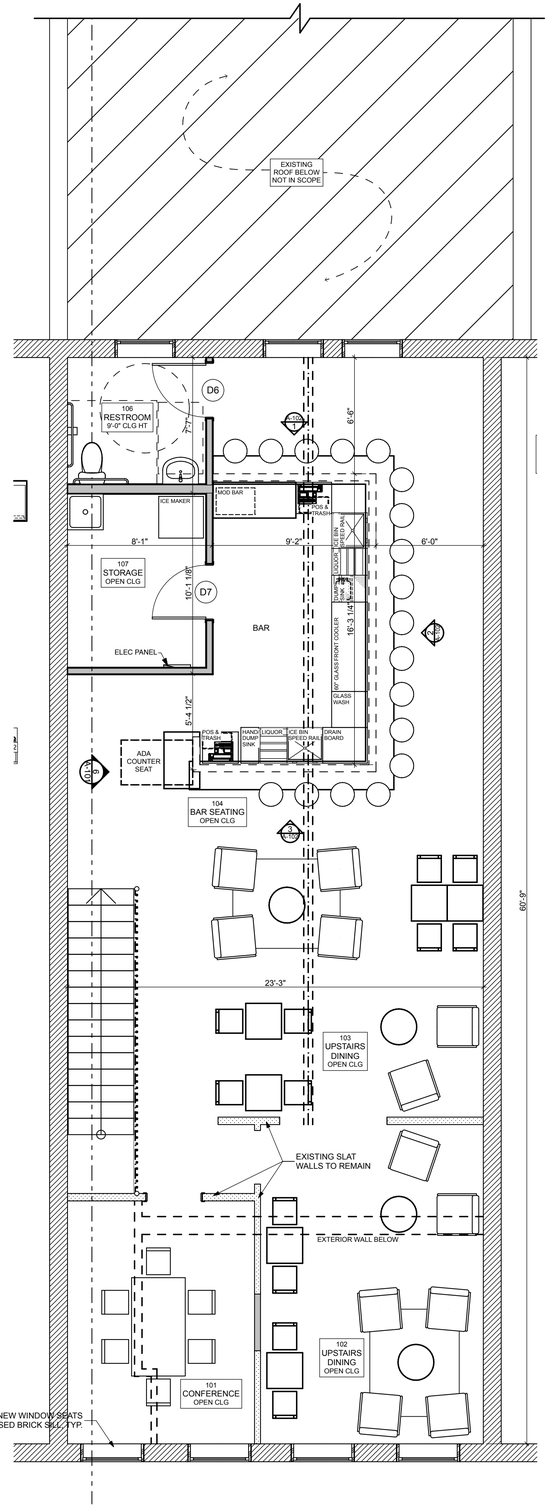
A SCHLAGE ND SERIES
LOCK FUNCTION: OFFICE LOCK
LEVER DESIGN: RHO (RHODES)
FINISH: 626 (SATIN CHROMIUM PLATED)

B SCHLAGE ND SERIES
LOCK FUNCTION: BATHROOM PRIVACY LOCK / ND40S
LEVER DESIGN: RHO (RHODES)
FINISH: 626 (SATIN CHROMIUM PLATED)

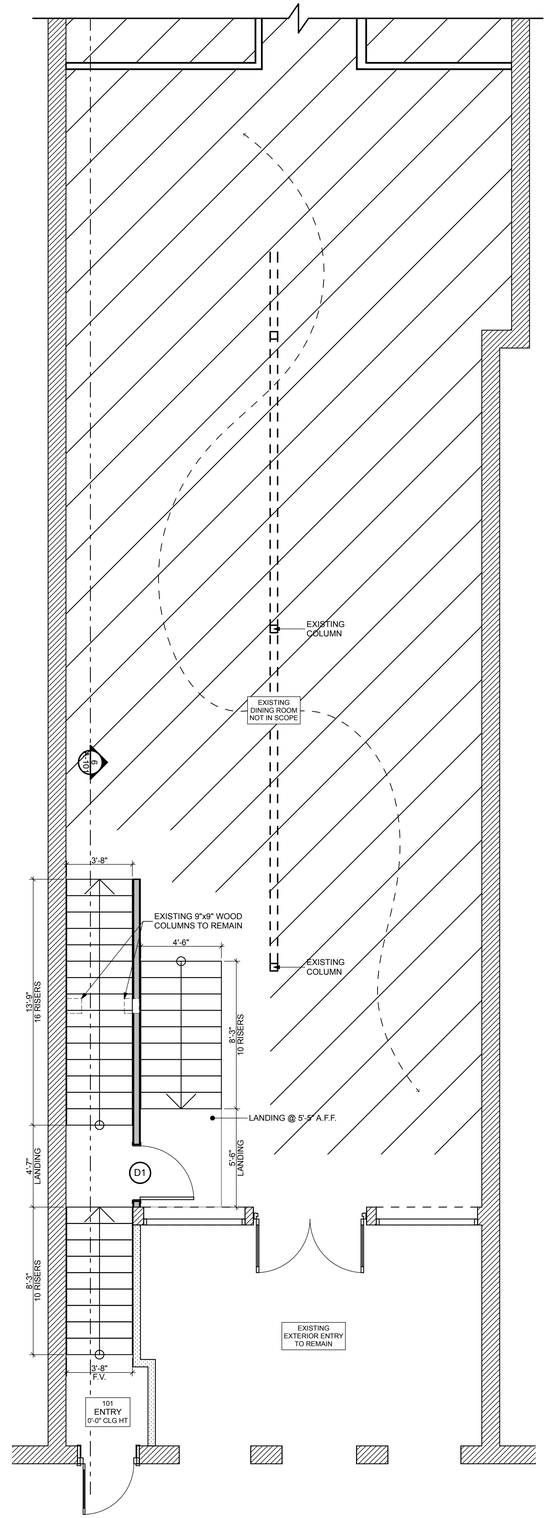
C SCHLAGE ND SERIES
LOCK FUNCTION: STORAGE LOCK
LEVER DESIGN: RHO (RHODES)
FINISH: 626 (SATIN CHROMIUM PLATED)



3 FLOOR DETAIL
SCALE: 1" = 1'-0"



2 2ND FLOOR PLAN
SCALE: 1/4" = 1'-0"



1 1ST FLOOR PLAN
SCALE: 1/4" = 1'-0"

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WEST OAK COFFEE SHOP

116 W. OAK STREET
DENTON, TX

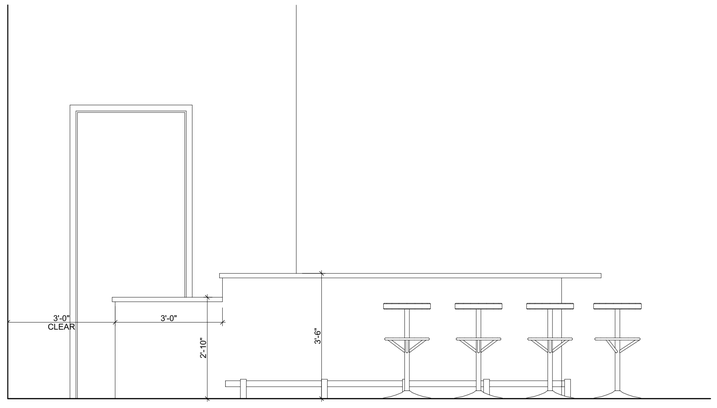
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ARCHITECTS
Lewisville, Tx
972) 221-1424

REVISIONS
DATE

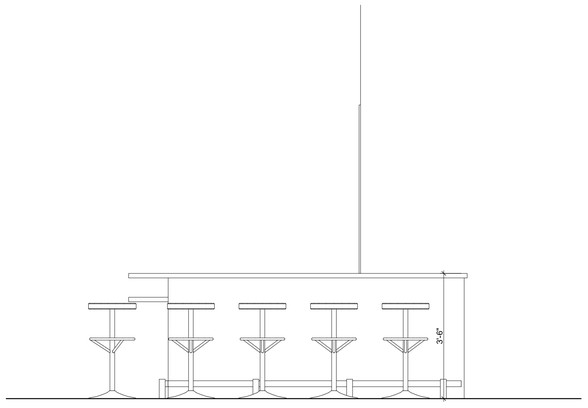
FLOOR PLANS

ISSUE DATE:

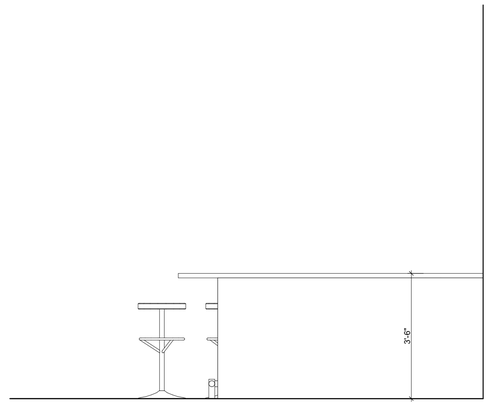
Scale: REF. PLAN
Drawn: JB
Job: 19-057-001
Sheet Number: A-101



3 BAR ELEVATION
SCALE: 1/2" = 1'-0"



2 BAR ELEVATION
SCALE: 1/2" = 1'-0"



1 BAR ELEVATION
SCALE: 1/2" = 1'-0"

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REVISIONS
DATE

INTERIOR ELEVATIONS

ISSUE DATE:

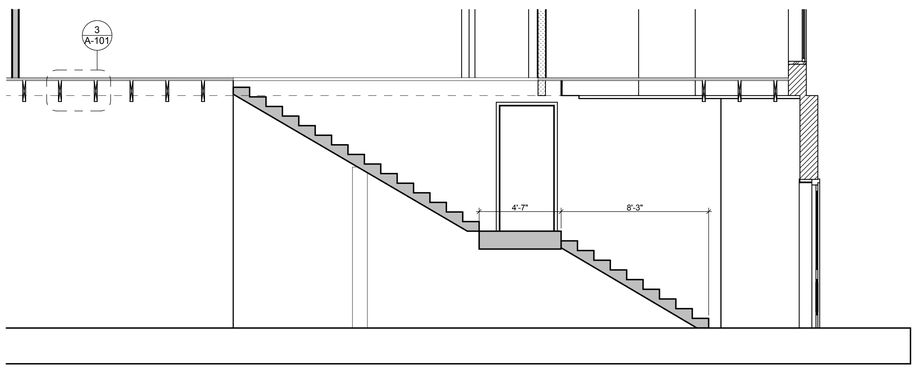
Scale: REF. PLAN
Drawn: JB
Job: 19-057-001

Sheet Number:
A-102

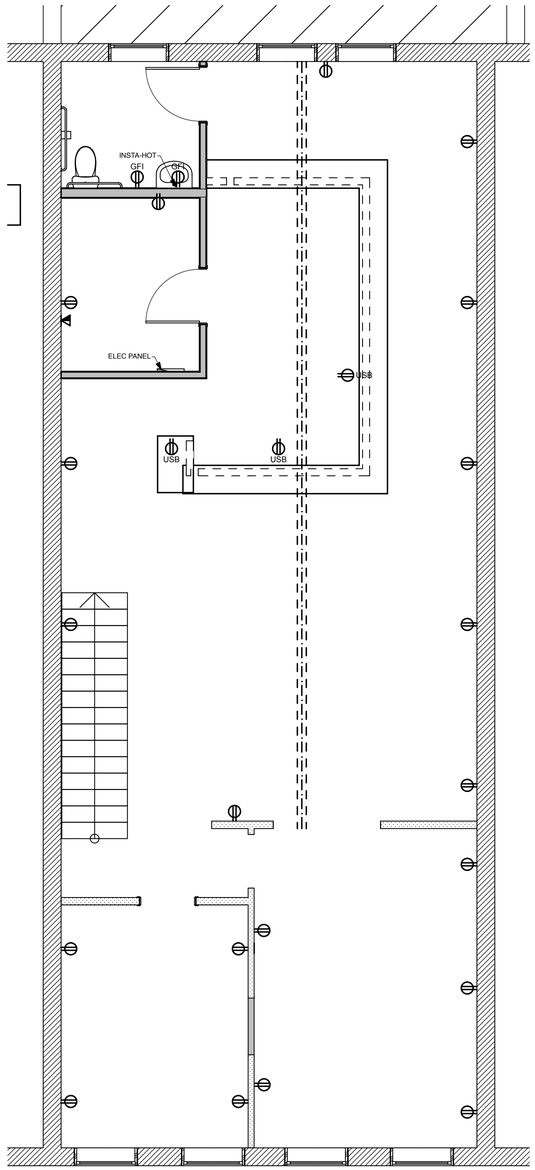
WEST OAK
COFFEE SHOP
116 W. OAK STREET
DENTON, TX

REGISTERED ARCHITECT
WILLIAM C. PECK
18501
STATE OF TEXAS
08.08.2025

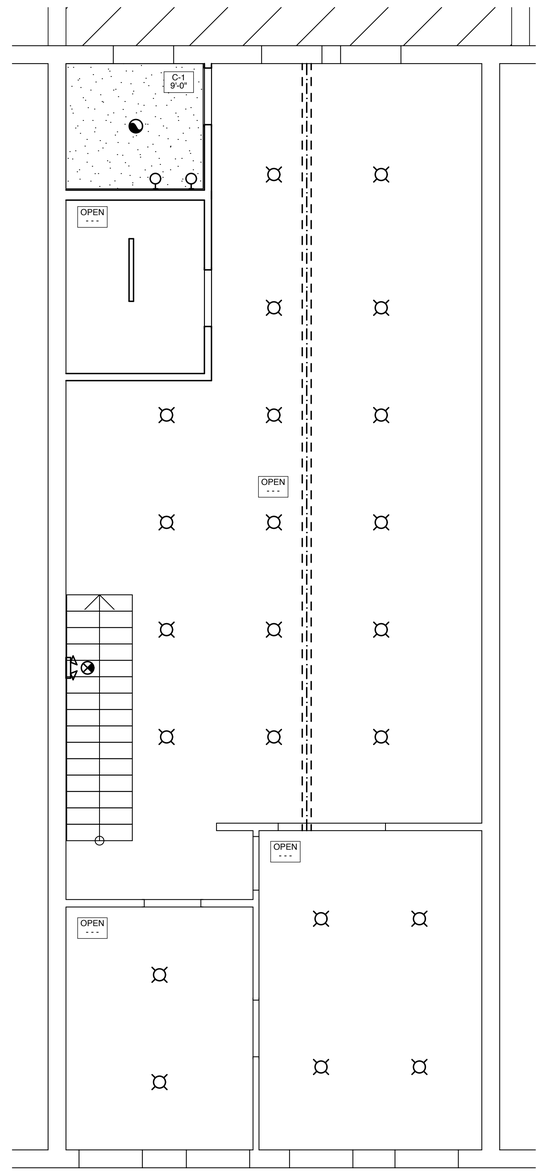
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1 SECTION
SCALE: 1/4" = 1'-0"



3 POWER PLAN
SCALE: 1/4" = 1'-0"



2 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

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WEST OAK COFFEE SHOP

116 W. OAK STREET
DENTON, TX

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REFLECTED CEILING PLAN

REVISIONS	
DATE	

ISSUE DATE:

Scale: REF. PLAN
Drawn: JB
Job: 19-057-001
Sheet Number: A-104

ABBREVIATIONS

A

A/C	AIR CONDITIONING
ABV	ABOVE
AC	ALTERNATING CURRENT
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
ADJ	ADJUSTABLE
AF	AMPERE FUSE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
AMPS	AMPERES
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECT, ARCHITECTURAL
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AUX	AUXILIARY
AV	AIR VENT
AWG	AMERICAN WIRE GAUGE
AWS	AMERICAN WELDING SOCIETY
AWWA	AMERICAN WATER WORKS ASSOCIATION

B

BD	BACKDRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFW	BOILER FEED WATER
BKR	BREAKER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT

C

C	CONDUIT
CATV	CABLE TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CIRC	CIRCULATING
CKT	CIRCUIT
C	CENTERLINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COL	COLUMN
CPVC	CHLORINATED POLYVINYL CHLORIDE
CU	COPPER
CW	COLD WATER
C	DEGREES CELSIUS

D

D	DEPTH
DB	DRY BULB
dB	DECIBEL
DC	DIRECT CURRENT
DEG	DEGREES
DESIG	DESIGNATION
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPDT	DOUBLE-POLE, DOUBLE-THROW
DPST	DOUBLE-POLE, SINGLE-THROW
DS	DOWNSPOUT
DWG	DRAWING
DX	DIRECT EXPANSION

E

EA	EACH
EAT	ENTERING AIR TEMPERATURE
ECC	ECCENTRIC
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING WET BULB
EWC	ELECTRICAL WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST	EXISTING

F

FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCO	FLOOR CLEANOUT
FL	FLOW LINE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FPM	FEET PER MINUTE
FT	FOOT, FEET
FVN	FULL-VOLTAGE, NON-REVERSING
R	DEGREES FAHRENHEIT
F	FEED-THRU-LUGS
F.T.L.	

G

G,GND	GROUND
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
GPD	GALLONS PER DAY
GPU	GALLONS PER HOUR
GPM	GALLONS PER MINUTE

H

H	HEIGHT
HD	HEAD, HUB DRAIN
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HORIZ	HORIZONTAL
HP	HORSEPOWER
HSTAT	HUMIDISTAT
HSIM	HIGH PRESSURE STEAM
HTG	HEATING
HTR	HEATER
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
HYD	HYDRANT
HZ	HERTZ

I

ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IES	ILLUMINATING ENGINEERING SOCIETY
IG	ISOLATED GROUND
IN	INCH
IN WC	INCHES OF WATER COLUMN

J

J-BOX	JUNCTION BOX

K

KCMIL	1000CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPS
KW	KILOWATT
KWH	KILOWATT-HOUR

L

L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LB,#	POUNDS
LDB	LEAVING DRY BULB
LF	LINEAR FEET
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LSTM	LOW PRESSURE STEAM (15 PSIG)
LTG	LIGHTING
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE

M

MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFGR	MANUFACTURER
MG	MOTOR GENERATOR
MH	MANHOLE, METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED

N

N/A	NOT APPLICABLE
NC	NOISE CRITERIA, NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
N/L	NIGHT LIGHT - OFTEN WITH BATTERY BACKUP
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE

O

OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPG	OPENING
OS&Y	OUTSIDE STEM AND YOKE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OS	OCCUPANCY SENSOR FOR LIGHTING CONTROLL

P

PD	PRESSURE DROP
PF	POWER FACTOR
PH	PHASE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
PSV	PRESSURE SAFETY VALVE, RELIEF VALVE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE

Q

QTY	QUANTITY

R

RA	RETURN AIR
RCP	REFLECTED CEILING PLAN, REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RE:	REFERENCE, REFER
REC/RC	RECIRCULATE
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RGS	RIGID GALVANIZED STEEL
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION

S

SA	SUPPLY AIR
SD	SMOKE DAMPER, STORM DRAIN
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SHT MTL	SHEET METAL
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL, SANITARY SEWER
ST	SOUND TRAP, STEAM TRAP
STD	STANDARD
STL	STEEL
SURF	SURFACE
SUSP	SUSPEND

T

TDH	TOTAL DYNAMIC HEAD
THRU	THROUGH
TP	TOTAL PRESSURE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TYP	TYPICAL

U

U/F	UNDERFLOOR
U/G	UNDERGROUND
U/S	UNDERSLAB
UL	UNDERWRITERS LABORATORIES, INC.
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY

V

V	VOLT
VA	VOLT AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VCP	VITRIFIED CLAY PIPE
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VIE	VENT THROUGH ROOF

W

W	WATT, WIDTH
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WG	WATER GOING
WPD	WATER PRESSURE DROP
WP	WEATHER PROOF
WT	WATERTIGHT, WEIGHT

X

XFMR	TRANSFORMER

ELECTRICAL SYMBOL SCHEDULE

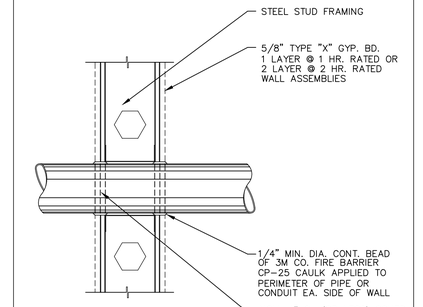
	*** DESCRIPTION ***
	FLUORESCENT LIGHT FIXTURE (SEE LIGHTING FIXTURE SCHEDULE)
	FLUORESCENT "OPEN" STRIPLIGHT
	INCANDESCENT "CAN" FIXTURE (SEE FIXTURE SCHEDULE)
	INCANDESCENT "WALL MTD." FIXTURE (SEE FIXTURE SCHEDULE)
	EXIT FIXTURE (SEE FIXTURE SCHEDULE)
$	SINGLE POLE TOGGLE SWITCH, HUBBELL #1221
$3	THREE WAY TOGGLE SWITCH, HUBBELL #1223
$D	DIMMER LIGHT SWITCH
	DUPLEX RECEPTACLE, HUBBELL #5362
	DUPLEX RECEPTACLE, HUBBELL #5362, W/CROUSE HINDS WLRD1 PL.
GFI	DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER
	SPECIALTY OUTLET (SEE PLANS FOR SIZE)
	POWER CONDUCTORS IN CONDUIT
	HOME RUN TO PNL. W/CKT#,PNL. DESIGNATION SHOWN
EWC	ELECTRIC WATER COOLER
AFF	ABOVE FINISHED FLOOR
WP	WEATHER PROOF
J	JUNCTION BOX (SEE PLANS FOR SIZE)
T	THERMOSTAT LOCATION
	SINGLE PHASE MOTOR (SEE PLANS FOR SIZE)
	THREE PHASE MOTOR (SEE PLANS FOR SIZE)
	FUSED AND NON-FUSED DISCONNECTS
C	CLOCK (SEE NOTES IF MASTER)
F	MANUAL PULL FOR FIRE ALARM - REF PROJECT MANUAL +44" A.F.F.
H	A.D.A. COMPLIANT STROBE HORN -REF. PROJECT MANUAL + 80" A.F.F.
S	SMOKE DETECTOR
	DATA
	TELEPHONE

MECHANICAL SYMBOLS

	EXHAUST FAN DUCT SHOWN UP
	SUPPLY DIFFUSER
	RETURN GRILL (1 X 1) OR AS SCHEDULED
T	THERMOSTAT
S	TEMPERATURE SENSOR
	RETURN GRILL / FILTER GRILL 2' X 4' OR AS SCHEDULED
A-400	DIFFUSER MARK AND CFM BALANCE
	FLEX DUCT AND VOLUME DAMPER
	PACKAGED ROOF MOUNTED HVAC SYSTEM
RTU-XX	CONDENSING UNIT OR HEAT PUMP

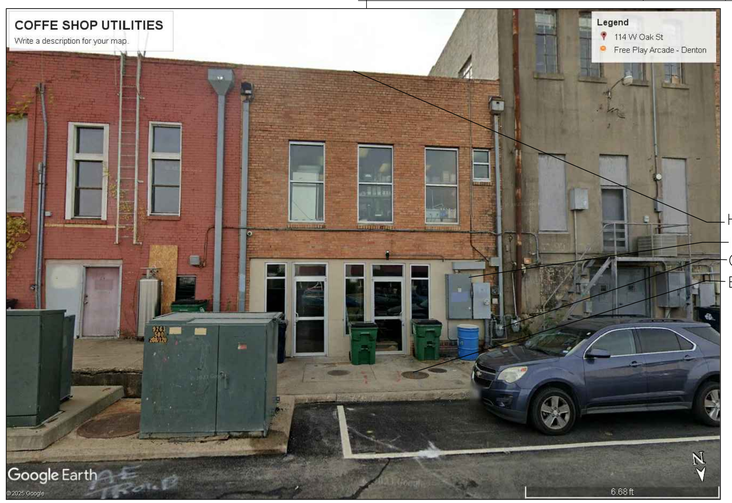
PLUMBING SYMBOLS

	COLD WATER	SS OR SK	SINK
	HOT WATER	EWC	ELECTRIC WATER COOLER
	HOT WATER @ 180°	HEWC	HANDICAPPED EWC
	SANITARY SEWER	DF	DRINKING FOUNTAIN
	NATURAL GAS	HDF	HANDICAPPED DRINKING FOUNTAIN
	SANITARY SEWER VENT		INLINE PUMP
SD	STORM DRAIN	VTR	VENT THRU ROOF
FS	FLOOR SINK W/ HALF COVER	SA	SHOCK ARRESTOR
FD	FLOOR DRAIN	CO	CLEANOUT
FFD	FUNNEL FLOOR DRAIN	DCO	DOUBLE CLEANOUT
HD	HUB DRAIN	WCO	WALL CLEANOUT
CW	CW	HB	HOSE BIB
HW	HW	RD	ROOF DRAIN
S	SOLENOID VALVE W/ SHUT OFF	RD-IW	ROOF DRAIN FOR INDIRECT WASTE
	BALL VALVE	TP	TRAP PRIMER
	GATE VALVE	AGF	AIR GAP FITTING
	CHECK VALVE		CONNECTION POINT
WC	WATER CLOSET		PIPING DOWN
HWC	HANDICAPPED WATER CLOSET		PIPING UP
UR	URINAL	WH	WATER HEATER
HUR	HANDICAPPED URINAL		COLD WATER
LAV	LAVATORY		HOT WATER
HLAV	HANDICAPPED LAVATORY		



NOTE:
WALL PENETRATIONS SHALL COMPLY WITH U.L. SYSTEM NO. WL 1001
F RATING - 1 HOUR, 2 HOUR

RATED PENETRATION



1 EXISTING UTILITIES -116 W OAK
SCALE: NONE COFFEE SHOP REAR ALLEY VIEW

GENERAL NOTES

A. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR JOB SITE WORK SAFETY.

B. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.

C. REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS, WHERE THE ARCHITECT HAS DRAWN SUCH ELEVATIONS, FOR THE LOCATIONS OF ALL WALL MOUNTED DEVICES.

D. ALL DUCTWORK SIZES SHOWN ARE FREE AIR STREAM DIMENSIONS.

E. ALL PENETRATIONS THRU THE ROOF TO MECHANICAL EQUIPMENT SHALL BE WITH EQUIPMENT ROOF CURBS. COORDINATE THE EXACT LOCATION OF ALL PENETRATIONS WITH THE BUILDING STRUCTURE.

F. COORDINATE ALL SLAB PENETRATIONS AND SLEEVES PRIOR TO EACH CONCRETE POUR.

G. FURNISH ACCESS DOORS FOR INSTALLATION IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED MECHANICAL EQUIPMENT, VALVES, CONTROLS AND OTHER DIVICES.

H. INSTALL DUCTWORK AND PIPING TO PROVIDE THE MAXIMUM POSSIBLE CLEAR HEIGHT UNDERNEATH. MAINTAIN A MINIMUM OF 10 INCHES ABOVE FINISHED CEILING TO PROVIDE CLEARANCE FOR LIGHTING FIXTURES.

I. PAINT ANY ABOVE CEILING ITEMS WHICH CAN BE SEEN THROUGH AIR SLOTS OF GRILLE FLAT BLACK.

J. PROVIDE FLAT BLACK METAL BLANKOFF FOR UNUSED SECTIONS OF SLOT DIFFUSERS.

K. COORDINATE THE EXACT LOCATIONS OF HVAC EQUIPMENT WITH THE LOCATIONS OF LIGHTING FIXTURES, PIPING AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE TERMINAL UNITS.

L. PERFORM WORK IN ACCORDANCE WITH THE LATEST EDITIONS, REVISIONS, AMENDMENTS OR SUPPLEMENTS OF APPLICABLE STATUTES, ORDINANCES, CODES OR REGULATIONS OF FEDERAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION IN EFFECT ON THE DATE BIDS ARE RECEIVED.

✱✱✱ M. WHERE APPROVAL CODES HAVE BEEN ESTABLISHED BY OSHA, T.A.S., UNDERWRITERS LABORATORY, AMERICAN CODES, ANSI, ASME, ASA, ASHRAE, ASTM, ARI,IMC, IPC, NEC, NFRA, SMACNA, OR THE STATE FIRE INSURANCE REGULATORY BODY THESE STANDARDS SHALL BE FOLLOWED WHETHER OR NOT INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS.

N. ARRANGE WITH AUTHORITIES AND UTILITY COMPANIES FOR PERMITS, FEES, AND SERVICE CONNECTIONS, VERIFYING LOCATIONS AND ARRANGEMENTS AND PAY ALL CHARGES, INCLUDING INSPECTIONS.

O. WORKING PRESSURE OF PIPING SYSTEMS AND EQUIPMENT HAS BEEN ESTABLISHED AT 150 PSIG.

P. COORDINATE WORK WITH ARCHITECTURAL FEATURES AND COORDINATE WORK SO THAT INTERFERENCES BETWEEN PIPING, DUCTWORK, EQUIPMENT, PLUMBING WORK, ELECTRICAL WORK, AND BUILDING STRUCTURE WILL BE AVOIDED.

Q. THE ENTIRE SYSTEM AND ITS COMPONENT ITEMS OF EQUIPMENT SHALL OPERATE WITHOUT OBJECTIONABLE VIBRATION OR NOISE.

R. ALL WIRING AND ELECTRICAL CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 (N.E.C.)- 2023 OR APPROVED EDITION

S. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS. NOTE THAT SOME EXISTING UTILITIES MAY EXIST UNDER THE PROPOSED NEW FLOOR LOCATION. THIS DRAWING DOES NOT NECESSARILY INCLUDE ALL BOUNDARY, ROADWAY, UTILITY OR OTHER SITE DATA OF UNKNOWN NATURE OR KNOWN SITE DATA NOT MADE AVAILABLE TO OUR OFFICE. NO WARRANTIES ARE GIVEN OR IMPLIED.

T. INSTALL COMPLETE GAS PIPING SYSTEM PIPING FOR EQUIPMENT SUCH AS, RADIANT HEATERS, RTU FURNACES, WATER HEATERS & COMPLETE WITH REGULATORS WHERE APPLICABLE . EXISTING GAS HEADER IS IN BACK NEAR BACK DOOR .

U. GREASE TRAP IS EXISTING. THIS FINISH OUT IS FOR NON FOOD AREA.

V. DOMESTIC WATER SERVICE AND METER IS EXISTING TO THIS BUILDING. ROUTE NEW LINE FROM THE BUILDING SERVICE AT ROOF DECK.

W. EXPECT TO PRIMARILY RUN SEWER WASTE PIPING UNDER THE FLOOR TO CONNECT TO EXISTING LINE RUNING IN THE REAR ALLEY(FROM UPSTAIRS).

X. UTILITIES ARE GENERALLY IN THE REAR OF THE BUILDING.

Y. ALL UTILITIES ARE EXISITNG.

These plans are intended to provide the basic construction information necessary to substantially complete this structure. These construction documents must be verified and supplemented by the contractor as to all dimensions, conditions, coordination, and/or omissions, if any are to be brought to the attention of the Designer prior to any construction or purchases being made. It is recommended that the owner or builder obtain the services of a competent contractor to supervise the construction of the project in all of any kind. NOTE: All Federal, state, and Local codes, ordinances, and restrictions take precedence over any part of these construction documents which may conflict with same. The contractor shall assume responsibility for all construction means and methods.
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REVISIONS

COVER SHEET

ISSUE DATE:

Scale:

Drawn: JB

Job: 19-057-001

Sheet Number: MEP-1

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STATE OF TEXAS
BRYANT HAWKES
49717
REGISTERED
PROFESSIONAL ENGINEER

02.12.2025

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MECHANICAL SPECIFICATIONS

– MECHANICAL SPECIFICATIONS

– GENERAL PROVISIONS

0.01 PERFORMANCE: MECHANICAL CONTRACTOR SHALL PERFORM ALL WORK SPECIFIED, INDICATED AND REQUIRED UNLESS OTHERWISE NOTED, INCLUDING FINAL CONNECTIONS, IN A WORKMANLIKE MANNER USING WORKERS SKILLED AND EXPERIENCED IN THE TRADE.

0.02 SITE EXAMINATION: EXAMINE SITE BEFORE BIDDING. CLAIM NO EXTRAS RESULTING FROM LACK OF KNOWLEDGE OF SITE CONDITIONS. IF SITE CONDITIONS REQUIRE MODIFICATION OF THE SYSTEMS INDICATED IN THESE DOCUMENTS, SO ADVISE ENGINEER, AND IF ACCEPTED BY ENGINEER, INCLUDE COST OF SUCH MODIFICATIONS IN BID.

0.03 JOBSITE CONDITIONS: ACCEPT SOLE AND COMPLETE RESPONSIBILITY FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.

0.04 FULL FUNCTION: PROVIDE ALL MINOR ITEMS NECESSARY FOR A COMPLETE AND FULLY FUNCTIONAL INSTALLATION.

0.05 ADMINISTRATION: PROVIDE EVIDENCE OF LICENSURE, BONDING, AND INSURANCE, AND PERFORM OTHER ADMINISTRATIVE FUNCTIONS, AS REQUIRED.

0.06 PERMITS: PROCURE AND PAY FOR ALL REQUIRED PERMITS AND SERVICE CHARGES.

0.07 COORDINATION: CONFORM TO GENERAL CONSTRUCTION CONTRACT DOCUMENTS EXCEPT AS MODIFIED HEREIN. REFER ALSO TO STRUCTURAL AND ELECTRICAL CONTRACT DOCUMENTS. COORDINATE ALL WORK WITH OTHER TRADES. PROVIDE SHOP DRAWINGS FOR MAJOR SYSTEMS.

0.08 CUTTING AND PATCHING: CUT AND PATCH AS REQUIRED. CUT OR WELD STRUCTURAL MEMBERS ONLY WITH APPROVAL OF STRUCTURAL ENGINEER. PATCHING SUBJECT TO APPROVAL BY ARCHITECT.

0.09 EXISTING FLOORS: TRENCH OR CORE BORE EXISTING FLOORS PER LANDLORD/OWNER REQUIREMENTS.

0.10 ROOF PENETRATIONS: COORDINATE WITH LANDLORD/OWNER.

0.11 EQUIPMENT SUBSTITUTIONS: REIMBURSE ELECTRICAL CONTRACTOR, AT NO CHARGE TO OWNER, FOR HIS COSTS INCURRED DUE TO SUBSTITUTION OF MECHANICAL EQUIPMENT HAVING ELECTRICAL REQUIREMENTS DIFFERING FROM THOSE INDICATED.

0.12 ADJUSTMENTS: MAKE MINOR ADJUSTMENTS TO WORK WHERE REQUESTED BY TENANT, WHEN SUCH ADJUSTMENTS ARE NECESSARY TO PROPER OPERATION AND WITHIN THE INTENT OF THE CONTRACT.

0.13 REFERENCE STANDARDS: COMPLY WITH APPLICABLE STANDARDS OF NFPA, ANSI, UL, ASHRAE, AND SMACNA, EXCEPT AS SUPERSEDED BY LOCAL AUTHORITY. CONFORM WITH CONTRACT DOCUMENTS WHERE THEY EXCEED CODE MINIMUM REQUIREMENTS AND 2018 IMC.

0.14 LOCAL REQUIREMENTS: COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES, LANDLORD, SERVING UTILITIES, AND THE LOCAL AUTHORITY HAVING JURISDICTION. SECURE APPROVAL OF INSTALLATION BY LANDLORD/OWNER, LOCAL AUTHORITY, AND OTHERS AS REQUIRED.

0.15 SCHEDULE: ORDER EQUIPMENT WITHIN 5 DAYS OF RECEIPT OF CONTRACT TO MAINTAIN CONSTRUCTION SCHEDULE.

0.16 MATERIALS AND EQUIPMENT: PROVIDE NEW, UL LISTED, COMMERCIAL GRADE MATERIALS, DEVICES, EQUIPMENT, AND FIXTURES, SUITABLE FOR ENVIRONMENT. REUSE EXISTING ONLY WHEN COMPLIANT WITH THE CONTRACT DOCUMENTS, IN GOOD CONDITION, AND APPROVED BY THE ENGINEER.

0.17 SHOP DRAWINGS: BEFORE ORDERING EQUIPMENT AND MATERIALS, SUBMIT NOT LESS THAN FIVE CERTIFIED COPIES OF ALL SHOP AND EQUIPMENT DRAWINGS FOR ENGINEER'S REVIEW, WHO WILL RETAIN TWO COPIES. ONLY FURNISH SYSTEMS AND EQUIPMENT IN COMPLIANCE WITH ACCEPTED SHOP DRAWINGS.

0.18 INSTALLATION: INSTALL ALL MATERIALS, EQUIPMENT AND SYSTEMS IN FULL ACCORD WITH MANUFACTURERS' INSTRUCTIONS.

0.19 LAYOUT: INSTALL ALL PIPING AND DUCTWORK TO PRESENT A NEAT AND ORDERLY APPEARANCE. RUN ALL LINES PARALLEL WITH BUILDING CONSTRUCTION. MAINTAIN HEADROOM AND EQUIPMENT CLEARANCE, AND GRADIENT WHERE REQUIRED. ALLOW FOR EXPANSION AND CONTRACTION.

0.20 ACCESS DOORS: PROVIDE ACCESS DOORS OR PANELS FOR ALL VALVES, CLEANOUTS, DAMPERS, CONTROLS, DEVICES, AND OTHER ITEMS REQUIRING INSPECTION OR MAINTENANCE. ACCESS PANELS SERVING HVAC COMPONENTS SHALL BE 12–INCHES BY 12–INCHES MINIMUM OR LARGER TO PROVIDE SUFFICIENT WORKING CLEARANCE FOR COMPONENT BEING ACCESSED.

0.21 COMMISSIONING: THOROUGHLY TEST AND DEMONSTRATE PROPER OPERATION OF ALL SYSTEMS AND EQUIPMENT FURNISHED OR INSTALLED UNDER THIS CONTRACT.

0.22 O & M MANUALS: AN OPERATION AND MAINTENANCE MANUAL SHALL BE PROVIDED TO THE BUILDING OWNER OR OPERATOR. THE MANUAL SHALL INCLUDE BASIC DATA RELATING TO THE OPERATION AND MAINTENANCE OF HVAC SYSTEMS AND EQUIPMENT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED. WHERE APPLICABLE, HVAC CONTROLS INFORMATION SUCH AS DIAGRAMS, SCHEMATICS, CONTROL SEQUENCE DESCRIPTIONS, AND MAINTENANCE AND CALIBRATION INFORMATION SHALL BE INCLUDED.

0.23 WARRANTY: UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE, EXCEPT WARRANT AIR CONDITIONING COMPRESSORS FOR FIVE YEARS. DURING WARRANTY PERIOD REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT OR WORKMANSHIP WITHOUT COST TO OWNER .

0.24 EQUIPMENT IDENTIFICATION: IDENTIFY ALL APPLICABLE ROOFTOP EQUIPMENT WITH TENANT'S NAME AND SPACE NUMBER, USING 2" PAINTED CHARACTERS OR STAMPED METAL TAG.

0.25 DRAWINGS ARE DIAGRAMMATIC: VERIFY ALL DIMENSIONS AND LENGTHS, AND ADJUST EQUIPMENT, PIPE AND DUCT LOCATIONS TO AVOID CONFLICTS WITH OTHER CONSTRUCTION AND TRADES. CONTRACTORS RESPONSIBLE FOR RECORD DRAWINGS IF REQUIRED BY CITY. PROVIDE PRINTED SHOP DRAWINGS FOR REVIEW OF MAJOR SYSTEMS.

0.26 DOCUMENT PRIORITY: DRAWING INDICATIONS AND NOTATIONS SUPERSEDE THESE SPECIFICATIONS.

0.27 RATINGS: REFER TO DRAWINGS AND SCHEDULES FOR ADDITIONAL RATINGS AND REQUIREMENTS.

0.28 PROJECT REQUIREMENTS: REFER TO DRAWINGS FOR PARTICULAR PROJECT REQUIREMENTS, AS NOT ALL ITEMS INCLUDED IN THESE SPECIFICATIONS MAY BE REQUIRED FOR THIS PROJECT.

0.29 DOCUMENT ERRORS: NOTIFY THE ENGINEER OF ERRORS, DISCREPANCIES OR OMISSIONS BEFORE CONSTRUCTION OR FABRICATION OF WORK, OR, FAILING SUCH NOTICE, BE RESPONSIBLE FOR CORRECTING SAME WITHOUT COST TO OWNER, ARCHITECT OR ENGINEER.

0.30 SHOP DRAWINGS SUBMITTALS (MECHANICAL AND ELECTRICAL):
THE CONTRACTOR SHALL SUBMIT FIVE SETS OF PRINTED SHOP DRAWINGS.
THE SHOP DRAWINGS OF THE FOLLOWING EQUIPMENT USING THE INDICATED NUMBERING SYSTEM AND TITLES, SHALL BE SUBMITTED THROUGH THE ARCHITECT TO THE ENGINEER AND THEN RESUBMITTED FOR FINAL APPROVAL.
IF NECESSARY. SHOP DRAWINGS SHALL SUBMITTED FOR THE FOLLOWING ITEMS:

A. AIR CONDITIONING EQUIPMENT AND ACCESSORIES
B. EXHAUST FANS
C. LOUVERS
D. REGISTERS AND DIFFUSERS AND RELATED DUCTWORK
E. WATER HEATERS, TEMPERATURE REGULATING VALVES, ETC.
F. PLUMBING FIXTURES AND ACCESSORIES
G. PIPING AND ACCESSORIES

– PIPE AND FITTINGS

1.10 PIPE HANGERS AND SUPPORTS: PROPERLY SUPPORT ALL PIPING FROM JOISTS (TOP CHORD) OR OTHER STRUCTURAL MEMBERS. FOR PIPES UP TO 4" O.D., USE GRINELL FIG. 260 CLEVIS HANGERS WITH 3/8" ROD, OR FIG. 195 BRACKETS.

1.20 INSULATION SHIELDS: PROVIDE 18 GAUGE x 12" LONG GALVANIZED INSULATION SHIELDS AT SUPPORT POINTS FOR INSULATED PIPES.

1.30 PIPE SUPPORT SPACING: SUPPORT PIPE NOT LESS THAN 6 FT. ON CENTER FOR COPPER PIPE UP TO 2" O.D., OR NOT LESS THAN 10 FT. ON CENTER FOR STEEL PIPE UP TO 4" O.D.

1.40 COPPER CONTACT: PROVIDE COPPER PLATED HANGERS AND SUPPORTS WHERE IN CONTACT WITH COPPER PIPE.

1.50 PIPE SLEEVES: SLEEVE ALL HORIZONTAL PIPING WHICH PENETRATES WALLS WITH STANDARD WEIGHT STEEL PIPE OF 1" GREATER DIAMETER THAN PIPE OR INSULATION O.D. CUT SLEEVE FLUSH WITH WALL FINISH BOTH SIDES.

1.60 SEALANT: SEAL PIPE SLEEVES WITH ROPE AND EXPANDO NON–SHRINK SEALANT. FIRE/SMOKE SEAL PENETRATIONS OF RATED CONSTRUCTION TO MAINTAIN RATING.

1.70 WALL PLATES: FIT UNCOVERED PIPE PASSING THROUGH WALLS WITH WALL PLATES, CRANE NO. 10 OR EQUAL.

– THERMAL AND ACOUSTIC INSULATION

2.10 VIBRATION ISOLATION: PROVIDE EFFECTIVE VIBRATION ISOLATION DEVICES, AND FLEXIBLE CONNECTIONS, FOR ALL MOVING MACHINERY. PROVIDE DEVICES IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE ASHRAE HANDBOOK, HVAC APPLICATIONS (LATEST EDITION), CHAPTER "SOUND AND VIBRATION CONTROL".

2.20 NOISE TRANSMISSION: INSTALL PIPING AND DUCTWORK FREE FROM CONTACT WITH STRUCTURE OR EQUIPMENT TO PREVENT NOISE TRANSMISSION.

2.30 INSULATION REQUIREMENTS: INSULATE SYSTEMS AS SPECIFIED ONLY AFTER THEY HAVE BEEN TESTED AND INSPECTED. CLEAN ALL SURFACES THOROUGHLY OF MOISTURE, FOREIGN MATERIAL, GREASE, AND RUST. INSTALL INSULATION CONTINUOUS THROUGH PENETRATIONS. COMPLY WITH TITLE 24 CALIFORNIA CODE.

2.31 INSULATION HAZARDS: USE ONLY INSULATION ADHESIVES, SEALERS, AND COATINGS WITH FIRE HAZARD RATING NOT TO EXCEED 25/50/50 FLAME SPREAD, FUEL CONTRIBUTED, AND SMOKE DEVELOPED, IN ACCORDANCE WITH UL 723 AND ASTM E84.

2.32 INSULATED PLUMBING SYSTEMS: INSULATE HOT AND COLD WATER PIPING, AND HORIZONTAL WASTE PIPING IN CEILING SPACE, WITH 1–IN. THICK CLOSED CELL, SELF SEALING FLEXIBLE TUBING, ARMAFLEX 2000 OR EQUAL.

2.34 ACOUSTICALLY LINED SUPPLY AND RETURN DUCT: UNLESS OTHERWISE INDICATED ON THE PLANS, LINE SUPPLY AND RETURN DUCTWORK WITHIN 10–FEET OF THE DISCHARGE AND INTAKE OF AIR HANDLING UNITS WITH 1" THICK GLASS FIBER ACOUSTICAL DUCT LINER BOARD, OWENS–CORNING, OR EQUAL. INCREASE DUCT SIZE INDICATED ON PLANS 2" EACH DIMENSION TO ACCOMMODATE DUCT LINER.

2.35 EXTERNALLY INSULATED SUPPLY DUCT: INSULATE SHEET METAL DUCTWORK WITH 2 INCH MINIMUM FIBERGLASS BLANKET DUCT WRAP WITH AN INTEGRAL VAPOR BARRIER FACING, OWENS–CORNING, OR EQUAL. THE INSULATION SHALL HAVE MINIMUM R=7.0 HR–SQ.FT.–DEG. F/BTU–IN. THERMAL RESISTANCE. DO NOT INSULATE PORTIONS OF DUCTWORK WHICH ARE INTERNALLY LINED.

2.40 INSULATED FLEXIBLE DUCT: GENERAL ENVIRONMENTAL CORPORATION TYPE GJ0A OR EQUAL, 5'–0" MAXIMUM LENGTH WITH A MINIMUM R=6.0 HR SQ.FT.–DEG. F/BTU–IN. THERMAL RESISTANCE. USE ONLY FOR FINAL CONNECTIONS TO CEILING DIFFUSERS.

– FIRE PROTECTION – EXISTING FIRE PROTECTION ROUGHED IN

3.10 FIRE PROTECTION EXISTING: PROVIDE A NEW FIRE PROTECTION SPRINKLER SYSTEM AS MAY BE REQUIRED BY ARCHITECTURAL DESIGN, AND IN ACCORDANCE WITH NFPA 13, APPLICABLE STATE AND LOCAL CODES, AND REQUIREMENTS OF FIRE INSURANCE UNDERWRITERS.

3.15 REFERENCES: ANSI/ASME B16.1 – CAST IRON PIPE FLANGES AND FLANGED FITTINGS, CLASS 25, 125, 250 AND 800.
ANSI/ASME B16.4 – CAST IRON THREADED FITTINGS, CLASS 125 AND 250.
ANSI/ASME B16.5 – PIPE FLANGES AND FLANGED FITTINGS
ANSI/AWWA C110 – DUCTILE IRON AND GRAY IRON FITTINGS
ANSI/AWWA C151 – DUCTILE IRON PIPE, CENTRIFUGALLY CAST
ANSI/ASTM D2564 – RIGID POLY (VINYL CHLORINE) (PVC) COMPOUNDS ALL CHLORINATED POLY (VINYL CHLORINE) (CPVC) COMPOUNDS.

3.20 QUALITY ASSURANCE: CONFORM TO NFPA 14 FOR STANDPIPE AND HOSE SYSTEMS. VALVES: PROVIDE MANUFACTURER'S NAME AND PRESSURE RATING MARKED ON VALVE BODY.

3.30 SUBMITTALS: SUBMIT PRODUCT DATA UNDER PROVISIONS OF DIVISION 1. INDICATE PIPE MATERIALS USED, JOINTING METHODS, SUPPORTS, FLOOR AND WALL PENETRATION SEALS. INDICATE VALVE DATA AND RATINGS.

3.40 DELIVERY, STORAGE, AND HANDLING: DELIVER AND STORE VALVES IN SHIPPING CONTAINERS, WITH LABELING IN PLACE, UNDER PROVISIONS OF SECTION 01000. PROVIDE TEMPORARY COATING ON CAST IRON AND STEEL VALVES. PROVIDE TEMPORARY END CAP AND CLOSURES. MAINTAIN IN PLACE UNTIL INSTALLATION.

3.50 PRODUCTS: PIPE SHALL BE IRON CONFORMING TO ANSI/AWWA C151, DUCTILE IRON. PIPE FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C110. UNIONS FLANGES AND COUPLINGS SHALL BE MECHANICAL GROOVED COUPLINGS. THEY SHALL HAVE MALLEABLE IRON HOUSING CLAMPS TO ENGAGE AND LOCK, DESIGNED TO PERMIT SOME ANGULAR DEFLECTION, CONTRACTION, AND EXPANSION; "C" SHAPED COMPOSITION SEALING GASKET, STEEL BOLTS, NUTS, AND WASHERS; GALVANIZED COUPLINGS FOR GALVANIZED PIPE. GATE VALVES SHALL BE OF IRON BODY, BRONZE TRIM, RISING STEM, SOLID WEDGE AND MANUFACTURED BY MUELLER, WITH SUBSTITUTIONS ONLY UNDER PROVISIONS OF SUPPLEMENTARY CONDITIONS PARAGRAPH 4.19. PROVIDE VALVE CONNECTIONS TO MATCH PIPE JOINTS. USE VALVES OF PIPE SIZE. FIRE HYDRANT SHALL BE MANUFACTURED BY MUELLER.

3.60 EXECUTION:

A. PREPARATION: REAM PIPE AND TUBE ENDS TO FULL INSIDE DIAMETER. REMOVE BURRS AND BEVEL PLAIN END FERROUS PIPE. REMOVE SCALE AND FOREIGN MATERIAL, INSIDE AND OUTSIDE, BEFORE ASSEMBLY.

B. INSTALLATION – PIPE: MECHANICAL GROOVED JOINTS MAY BE USED INSTEAD OF THREADED OR WELDED JOINTS. PROVIDE SLEEVES WHEN PENETRATING FOOTINGS, FLOORS, AND WALLS. SEAL PIPE AND SLEEVE PENETRATION TO ACHIEVE FIRE RESISTANCE EQUIVALENT TO FIRE SEPARATION REQUIRED.

C. INSTALLATION – VALVES: INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED. PROVIDE GATE VALVES FOR SHUT–OFF OR ISOLATING SERVICE.

3.70 WET–PIPE SPRINKLER SYSTEMS: DESIGN AND INSTALL WET–PIPE SPRINKLER SYSTEM, PUMPS, AND FIRE DEPARTMENT CONNECTION. RELATED WORK IS SUPPORTS AN ANCHORS, AND VIBRATION ISOLATION. REFERENCE NFPA 13 – INSTALLATION OF SPRINKLER SYSTEMS. SYSTEM TO PROVIDE COVERAGE FOR ENTIRE BUILDING. INTERFACE SYSTEM WITH BUILDING FIRE AND SMOKE ALARM SYSTEM. PROVIDE SYSTEM TO NFPA 13, GROUP 2 ORDINARY HAZARD. PROVIDE FIRE DEPARTMENT CONNECTION. DESIGN AND INSTALLATION TO CONFORM TO NFPA 13 AND PER FIRE MARSHALL INSTRUCTIONS. EQUIPMENT AND COMPONENTS MUST BEAR UL OR FM LABEL OR MARKING. THE SPECIALIST FIRM MUST BE A COMPANY SPECIALIZING IN SPRINKLER SYSTEMS WITH MINIMUM OF THREE (3) YEARS EXPERIENCE. HYDRAULIC CALCULATION, PRODUCT DATA, SHOP DRAWINGS, AND LOW WATER PRESSURE CUT–IN CONTROLLER SHALL BEAR THE STAMP OF APPROVAL OF AUTHORITY HAVING JURISDICTION. INDICATE HYDRAULIC CALCULATIONS, DETAILED PIPE LAYOUT, HANGERS AN SUPPORTS, COMPONENTS AND ACCESSORIES. SUBMIT SHOP DRAWINGS, PRODUCT DATA, HYDRAULIC CALCULATIONS, TO AUTHORITY HAVING JURISDICTION FOR APPROVAL. SUBMIT PROOF OF APPROVAL TO ARCHITECT/ENGINEER. SUBMIT SHOP DRAWINGS, PRODUCT DATA, PROJECT RECORD DOCUMENTS, AND MANUFACTURER'S OPERATING AND MAINTENANCE DATA (INCLUDING WRITTEN MAINTENANCE DATA ON COMPONENTS OF SYSTEM, SERVICING REQUIREMENTS, AND RECORD DRAWINGS) UNDER PROVISIONS OF DIVISION 1. PROVIDE EXTRA SPRINKLER HEADS (INCLUDING SUITABLE WRENCHES FOR EACH HEAD TYPE) UNDER PROVISIONS OF NFPA 13 AND DIVISION 1.

3.80 PRODUCTS: FOR PIPING MATERIALS REFERENCE SECTION 3.60 ABOVE. THE AUTOMATIC SPRINKLER VALVE SHALL HAVE A FLOW DETECTOR WITH ALARM CIRCUITS, PRESSURE SWITCH, AND A PRESSURE RETARD CHAMBER. ALARM GONG SHALL BE WATER TYPE. THE FIRE DEPARTMENT CONNECTION SHALL BE ON A STANDARD WALL, THREAD OF A SIZE TO SUIT FIRE DEPARTMENT HARDWARE, TWO WAY THREADED DUST CAP AND CHAIN OF SAME MATERIAL AND FINISH, 3/4" AUTOMATIC DRIP, AND MARKED "SPRINKLER – FIRE DEPARTMENT CONNECTION". SPRINKLER HEADS SHALL BE MANUFACTURED BY GRINNEL, WITH SUBSTITUTIONS ONLY UNDER PROVISIONS OF DIVISION 1. SPRINKLER HEADS OF SUSPENDED CEILING TYPE SHALL BE STANDARD PENDANT TYPE WITH CHROME PLATED FINISH, WITH MATCHING ESCUTCHEON. SPRINKLER HEADS IN EXPOSED AREAS SHALL BE STANDARD UPRIGHT TYPE WITH CHROME PLATED FINISH. THOSE OF SIDEWALL TYPE SHALL BE OF CHROME PLATED FINISH WITH MATCHING ESCUTCHEON. THE FUSIBLE LINK SHALL BE TEMPERATURE RATED FOR SPECIFIC AREA HAZARD. THE GUARDS SHALL HAVE A FINISH TO MATCH SPRINKLER HEADS. COORDINATE BACKFLOW PREVENTOR TYPE WITH CITY ENGINEERING/FIRE DEPARTMENT.

3.90 EXECUTION:

A. PREPARATION: COORDINATE WORK OF THIS SECTION WITH OTHER AFFECTED WORK. PROVIDE FLEX JOINT AT BUILDING JOINT.

B. INSTALLATION – PIPING: INSTALL BURIED SHUT–OFF VALVE BOX. PROVIDE POST INDICATOR. PROVIDE DOUBLE CHECK VALVE ASSEMBLY AT SPRINKLER SYSTEM WATER SOURCE CONNECTION. LOCATE OUTSIDE ALARM GONG ON BUILDING WALL. PLACE PIPE RUNS TO MINIMIZE OBSTRUCTION TO OTHER WORK. PLACE PIPING IN CONCEALED SPACES ABOVE FINISHED CEILINGS. CENTER HEADS IN ONE DIRECTION ONLY IN CEILING TILE WITH LOCATION IN OTHER DIRECTION VARIABLE, DEPENDENT UPON SPACING AND COORDINATION WITH CEILING ELEMENTS. APPLY STRIPPABLE TAPE OR PAPER COVER TO ENSURE CONCEALED SPRINKLER HEAD COVER PLATES DO NOT RECEIVE FIELD PAINT FINISH. FLUSH ENTIRE PIPING SYSTEM OF FOREIGN MATTER. HYDROSTATICALLY TEST ENTIRE SYSTEM. TEST SHALL BE WITNESSED BY AUTHORITY HAVING JURISDICTION.

– PLUMBING

4.10 DOMESTIC (POTABLE) WATER SUPPLY PIPING: ABOVE GROUND: TYPE L HARD TEMPER COPPER TUBE PER ASTM B88, WITH WROUGHT COPPER FITTINGS PER USASI B16.18 AND .18a. BELOW GROUND: TYPE K SOFT TEMPER COPPER TUBE. USE ONLY 95/5 LEAD–FREE SOLDER IN POTABLE WATER PIPING. PROVIDE DIELECTRIC UNIONS AT EVERY JUNCTION OF TWO DISSIMILAR METAL PIPE MATERIALS. PEX PIPING IS ACCEPTABLE WHERE ALLOWED BY LOCAL CODES.

4.20 DRAIN, WASTE AND VENT PIPING: ABOVE GRADE: NO–HUB CAST IRON SANITARY SYSTEM PER CISPI 301–69T OR SCREWED GALVANIZED PIPE WITH CAST IRON DRAINAGE FITTINGS. BELOW GRADE: NO–HUB CAST IRON SANITARY SYSTEM PER CISPI 301–69T OR SERVICE WEIGHT CAST IRON HUB AND SPIGOT WITH NEOPRENE GASKET, PER CISPI HSN–68T. PVC SEWER PIPE IS ACCEPTABLE WHERE LOCAL CODES ALLOW.

4.40 VALVES: FURNISH AND INSTALL VALVES WHERE INDICATED ON PLAN AND AS NECESSARY FOR PROPER SYSTEM OPERATION AND COMPONENT ISOLATION. PROVIDE VALVES RATED FOR 125 PSI OR GREATER WORKING PRESSURE IN WATER PIPING.

F.P. HOSE BIBB	WADE OR EQUAL
CHECK VALVE UP TO 3"	CRANE NO. 37, OR EQUAL
GLOBE VALVE UP TO 3"	CRANE NO. 1, 17TF, OR EQUAL
GATE VALVE UP TO 3"	CRANE NO. 428,1334, OR EQUAL
BALL VALVE UP TO 3"	APOLLO SERIES 70–100, 70–200, OR EQUAL
TEMP. & PRESS. RELIEF VALVE	WATTS 10L MODEL M7, OR EQUAL, 3/4"Mx3/4"F
SHOCKSTOP	WADE W–5 (HOT), WADE W–10 (COLD)
BACKFLOW PREVENTOR	WATTS NO. RPZ 009M3QT SERIES, OR EQUAL
VACUUM RELIEF VALVE	WATTS NO N36 – 3/4", OR EQUAL
PRESSURE REDUCING VALVE	WATTS NO. U5 SERIES

4.70 PLUMBING FIXTURES: FURNISH AND INSTALL COMPLETE WITH FITTINGS AND ACCESSORIES AS REQUIRED. GENERALLY, MATCH EXISTING WHERE APPLICABLE, PARTICULARLY IN CLASS ROOM AREAS. PROVIDE AUTO TEMP REGULATING VALVES PER LATEST CODE AND CITY AMENDMENTS FOR SINKS WITH ASSE 1070 APPROVED THERMOSTATIC MIXING VALVES PER 2021 IPC 416.5 PROVIDE TRAP PRIMERS, INSTALL T&P PER 504.6 2021 IPC. EXTEND VENT PIPES AT LEAST 6 INCHES ABOVE ROOF. WATER HEATER DRAIN PANS PER SEC 504.7. EXPENSION TANKS SHALL NOT BE SUPPORTED BY PIPING (IPC 308.1) LABEL NON POTABLE WATER PIPES PER IPC .

4.73 ITEM ––––– DRINKING FOUNTAIN: ELKAY MODEL #EDFP BARRIER FREE, OR APPROVED EQUAL, WALL MOUNTING BRACKET, 18 GAUGE, TYPE 302, STAINLESS STEEL, VANDAL RESISTANT PUSH BAR WITH RAISED LETTERS, COMPLETE WITH SUPPLY AND DRAIN FITTINGS, 3/8" ANGLE STOPS AND 1–1/4" P–TRAP.

4.74 ITEM ––––– MOP BASIN: FIAT MODEL #MSB–2424 MOLDED STONE, OR APPROVED EQUAL, 24" x 24" x 10", 3–INCH STAINLESS STEEL DRAIN BODY, WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK, 3/4–INCH HOSE THREAD ON SPOUT, DOMED STRAINER AND LINT BASKET. PROVIDE CHROME PLATED, WALL MOUNTING SERVICE FAUCET MODEL #830–AA, HOSE, HOSE BRACKET AND MOP HANGER. REF PROJECT MANUAL FOR ADDITIONAL PLUMBING.

4.95 CLEANING AND TESTING: CLEAN, DISINFECT, AND TEST ALL PLUMBING AND PIPING SYSTEMS.

4.96 WHERE ROOF DRAIN LINES ARE INSIDE BUILDINGS, INSULATE LINES TO PREVENT CONDENSATE STAINS ON CEILING SYSTEMS. FOUR INCH DRAIN LINES ARE TYPICAL, WITH 6" FOR MORE THAN ONE R.D. ON A DRAIN LINE.

– HVAC PIPING AND SPECIALTIES

5.25 MISCELLANEOUS DRAIN LINES, RECEIVING COOLING COIL CONDENSATE, DRIP FOR HUMIDIFIERS, ETC.:
PIPING – PIPING SHALL BE TYPE "DWV" COPPER
FITTINGS – FITTINGS SHALL BE WROUGHT COPPER, SOLDER JOINTS.
JOINTS – JOINTS SHALL BE 50–50 SOLDER AND #50 FLUX.

– AIR HANDLING AND VENTILATION

7.50 AIR COOLED CONDENSING UNITS/HEAT PUMPS: LENNOX, TRANE, OR CARRIER; NO EXCEPTIONS. WORK INCLUDED: CONDENSING UNIT PACKAGE, INTERNAL PIPING AND ACCESSORIES, AND CONTROLS. RELATED WORK: PIPE FITTINGS, INSULATION, REFRIGERATION SPECIALTIES, FORCED AIR FURNACES, AND AIR HANDLING UNITS WITH COILS.
CONDENSING UNITS: PROVIDE SELF–CONTAINED, PACKAGED, FACTORY ASSEMBLED AND PREWIRED UNITS SUITABLE FOR OUTDOOR USE CONSISTING OF CABINET, COMPRESSORS, CONDENSING COIL AND FANS, INTEGRAL SUB–COOLING COIL, CONTROLS, LIQUID RECEIVER, WIND DEFLECTOR, AND SCREENS. PROVIDE AIR COOLED CONDENSING UNITS AS SCHEDULED ON DRAWINGS WITH AIR ENTERING CONDENSER AT 100 DEGREES. PROVIDE UNITS WITH EFFICIENCY RATINGS MINIMUM OF 14.0 ("STANDARD"). MATERIALS: USE CORROSION RESISTANT MATERIALS FOR PARTS IN CONTACT WITH REFRIGERANT. PROVIDE TIMER CIRCUITS TO PREVENT RAPID LOADING AND UNLOADING OF COMPRESSOR. CABINET: GALVANIZED STEEL WITH BAKED ENAMEL FINISH, AND REMOVABLE ACCESS DOORS OR PANELS WITH QUICK FASTENERS. COMPRESSOR: PROVIDE HERMETICALLY SEALED, 1750 RPM, RESILIENTLY MOUNTED COMPRESSOR WITH POSITIVE LUBRICATION, CRANKCASE HEATER, CYLINDER UNLOADERS FOR CAPACITY MODULATION, MOTOR OVERLOAD PROTECTION, SERVICE VALVES, AND FILTER DRIER.
CONDENSER COIL: SEAMLESS TUBING WITH ALUMINUM FINS. FANS: VERTICAL DISCHARGE, DIRECT DRIVE AXIAL FANS, RESILIENTLY MOUNTED WITH GUARD AND MOTOR MOTORS: PERMANENTLY LUBRICATED BALL BEARING MOTORS WITH BUILT–IN CURRENT AND OVERLOAD PROTECTION. CONTROLS: PROVIDE HIGH AND LOW PRESSURE CUTOUTS FOR COMPRESSOR, OIL PRESSURE CONTROL, NON–RECYCLING PUMP–DOWN, AND RESET RELAY. PROVIDE CONTROLS TO PERMIT OPERATION DOWN TO 50 DEGREES F AMBIENT TEMPERATURE AT MINIMUM COMPRESSOR LOAD. ADJUSTING: SUPPLY INITIAL CHARGE OF REFRIGERANT AND OIL FOR EACH REFRIGERATION SYSTEM. REPLACE LOSSES OF OIL OR REFRIGERANT PRIOR TO END OF CORRECTION PERIOD. SUPPLY TO OWNER, ONE COMPLETE CHARGE OF LUBRICATING OIL IN ADDITION TO THAT PLACED IN THE SYSTEM. SHUT DOWN SYSTEM IF INITIAL START–UP AND TESTING TAKES PLACE IN THE WINTER AND MACHINES ARE TO REMAIN INOPERATIVE. REPEAT START–UP AND TESTING OPERATION AT BEGINNING OF FIRST COOLING SEASON. PROVIDE COOLING SEASON START–UP, AND WINTER SEASON SHUT–DOWN FOR FIRST YEAR OF OPERATION. INSPECT AND TEST FOR REFRIGERANT LEAKS EVERY 3 (MONTHS) DURING FIRST YEAR OF OPERATION TO VERIFY SYSTEM INEGRITY.

7.51 PACKAGED THRU WALL UNITS: REF MECHANICAL SCHEDULES
IT ALTERNATE: SMALL MITSUBISHI DUCTLESS SPLIT SYSTEMS.

–PACKAGE ROOFTOP EQUIP. (GAS FIRED) EXISTING REUSED

7.60 ROOFTOP HVAC UNITS: TRANE, LENNOX, OR CARRIER . REUSE EXISTING RTU. FURNISH AND INSTALL ROOFTOP AIR CONDITIONING UNITS THAT ARE FACTORY ASSEMBLED, PIPED, INTERNALLY WIRED AND FULLY CHARGED WITH R–401A (OR APPROVED EQUAL). ALL UNITS ARE TO OPERATE CONTINUOUSLY AT OUTDOOR AMBIENT TEMPERATURES AS SCHEDULED. NOMINAL COOLING AND HEATING CAPACITIES SHALL BE AS SCHEDULED FOR THE AMBIENT CONDITIONS SHOWN ON THE DRAWINGS. UNIT EER SHALL MEET THE LATEST REQUIREMENTS OF ASHRAE 90.1–2013 or LATEST ADOPTED REVISION REQUIREMEN EER=14.0+ FOR 5 TONS AND UNDER,
UNIT EER=11.0+ FOR OVER 5 TONS. CASING SHALL BE OF GALVANIZED STEEL, ZINC PHOSPHATE AND FINISHED WITH MANUFACTURER'S STANDARD BAKED ENAMEL. PROVIDE UNITS WITH COMPRESSOR SHORT–CYCLING PROTECTION. COORDINATE WITH LAND LORD .
HVAC UNITS MUST INCLUDE HAIL GUARDS. ROUTE CONDENSATE THRU PITCH PAN ADJACENT TO EACH RTU AND TO SEWER AS ALLOWED BY LOCAL CODES. SERVICE EXISTING CONDENSATE LINE.

A. EXCEPT FOR PIPING WITHIN MANUFACTURER'S UNITS, HVAC DEFROST CYCLES. TWO MEANS OF MEETING THE REQUIREMENT PIPING SHALL BE INSULATED IN ACCORDANCE WITH TABLE 6.8.3. INSULATION EXPOSED TO WEATHER SHALL BE SUITABLE FOR OUTDOOR SERVICE, E.G., PROTECTED BY ALUMINUM, SHEET METAL PAINTED CANVAS, OR PLASTIC COVER. CELLULAR FOAM INSULATION SHALL BE PROTECTED AS ABOVE OR PAINTED WITH A COATING THAT IS WATER RETARDANT AND PROVIDES SHIELDING FROM SOLAR RADIATION.

– NATURAL GAS PIPING

7.70 (1) REFER TO PLUMBING FLOOR PLANS FOR LAYOUT AND ROUTING. DETAILS ARE NOT SHOWN ON FLOOR PLANS, USE SCHEMATIC PLANS FOR PIPING AS REQUIRED TO AVOID CONFLICT WITH DUCTWORK, OTHER SYSTEMS OR THE STRUCTURE. CONTRACTOR SHALL MAKE INSTALLATION BLACK WROUGHT STEEL PIPE STANDARD WEIGHT.

(2) PLUMBING CONTRACTOR SHALL INSTALL ALL UNDERGROUND GAS IN ACCORDANCE WITH THE TRANSPORTATION CODE BOOK TITLE 49 REGULATIONS, PART 192

ELECTRICAL SPECIFICATIONS SUMMARY

8.20 DUCTWORK ACCESSORIES:

A. BALANCING DAMPERS: AIR BALANCE, INC., LOUVERS & DAMPERS, INC., RUSKIN OR EQUAL. PROVIDE MANUAL, SINGLE OR MULTIBLADE DAMPERS, AS INDICATED AND AS CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS.

B. DAMPERS SHALL HAVE RIGID 2–IN. x 1/2–IN. x 10 GAUGE CHANNEL FRAMES, BALL OR BRONZE SLEEVE BEARINGS, 1/2–IN. POLISHED STEEL AXLES, 16–GAUGE, REINFORCED, FELT–EDGED BLADES (NOT OVER 8–IN. WIDE) AND STOP FRAMES AROUND THE ENTIRE PERIMETER. VOLUME DAMPERS IN DUCTS LARGER THAN 12–IN. x 6 IN. SHALL BE THE OPPOSED BLADE TYPE. DAMPERS IN ROUND DUCTS AND DUCTS 12–IN. x 6–IN. AND SMALLER SHALL BE BUTTERFLY TYPE. ROUND BUTTERFLY TYPE VOLUME DAMPERS SHALL BE 30 GAUGE, GALVANIZED STEEL THROUGH 12–IN. DIAMETER; 28 GAUGE FOR ABOVE 12–IN.

C. ALL DAMPERS SHALL BE EQUIPPED WITH STANDARD QUADRANTS OF SUITABLE SIZE IN EQUIPMENT ROOMS/AREAS AND YOUNG #301A, OR EQUAL, RECESSED–TYPE IN FINISHED AREAS. PROVIDE QUADRANT LOCKING DEVICE FOR EACH DAMPER ON ONE END OF THE SHAFT AND AN END BEARING PLATE ON THE OTHER END FOR DAMPER LENGTHS OVER 12–IN. PROVIDE EXTENDED QUADRANT LOCKS AND EXTENDED BEARING PLATES FOR EXTERNALLY INSULATED DUCTWORK. APPROVED MANUFACTURERS ARE VENTFABRICS, AND YOUNG REGULATOR CO.

D. DAMPERS SHALL BE COATED WITH RED ZINC CHROMATE PRIMER OVER A BOND COAT.

E. VOLUME DAMPERS, SPLITTERS AND DEFLECTORS SHALL BE PROVIDED IN ALL DUCTS TO PERMIT ACCURATE BALANCING OF THE SYSTEM. THE DAMPERS, SPLITTERS AND DEFLECTORS SHALL BE ADJUSTED TO SATISFY THE HEATING AND VENTILATING REQUIREMENTS OF THE CONDITIONED SPACE AND BE LOCKED IN PLACE.

8.40 AIR OUTLETS AND INLETS: FURNISH AND INSTALL TITUS, KRUEGER, OR APPROVED EQUAL, AS SCHEDULED. OPPOSED BLADE VOLUME DAMPERS FOR REGISTERS SHALL BE TITUS SERIES AG–35, KRUEGER SERIES 08C, OR EQUAL, OPPOSED BLADE TYPED WITH VERTICAL BLADES AND SCREWDRIVER SLOTS OR ALLEN WRENCH ADJUSTMENT ACCESSIBLE THROUGH THE REGISTER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MISCELLANEOUS ITEMS AS NECESSARY FOR A COMPLETE AND PROPER INSTALLATION IN THE TYPES OF WALLS AND CEILINGS USED ON THE PROJECT. THIS SHALL INCLUDE SUCH ITEMS AS FASTENERS, PLASTER RINGS, SUPPORTS, ETC.

8.60 FLEXIBLE CONNECTIONS: VENT FABRICS, INC., DURO DYNE, OR EQUAL. PROVIDE FLEXIBLE DUCT CONNECTIONS WHEREVER DUCTWORK CONNECTS TO VIBRATION ISOLATED EQUIPMENT AND WHERE SHOWN OR NOTED. MAKE AIRTIGHT JOINTS. PROVIDE ADEQUATE JOINT FLEXIBILITY TO ALLOW FOR THERMAL, AXIAL, TRANSVERSE AND TORSIONAL MOVEMENT. TYPICAL MAXIMUM RUN OUT IS 5 FT TO DIFFUSER

8.80 DUCT SMOKE DETECTOR: FURNISH AND INSTALL COMPATIBLE IONIZATION TYPE DUCT SMOKE DETECTORS WITH REMOTE TEST STATION IN SUPPLY DUCT AND RETURN DUCT AS INDICATED. CONNECT TO DE–ENERGIZE FAN UPON SMOKE DETECTION. CONNECTION TO TEST STATION AND FIRE ALARM SYSTEM BY OTHERS.

8.95 PROVIDE FIRE DAMPERS AT RATED ASSEMBLY PENETRATIONS PER 2021 IBC REFER ARCHITECTURAL

8.90 TYPICAL MAIN DUCT SIZES VS. CFM @ .08/100 FT.:

6" ~	180
8" ~	275
10" ~ OR 10"x8"	350
12" ~ OR 12"x10"	575
14" ~ OR 12"x12"	900
16" ~ OR 14"x14"	1300
18" ~ OR 20"x14"	1800
20" ~ OR 24"x14"	2300
24" ~ OR 24"x20"	3900
24"x16"	3000
24"x24"	5000
30"x16"	4000
36" ~ OR 36"x30"	10000

– SYSTEM CONTROL AND OPERATION

9.10 SPACE TEMPERATURE CONTROL: FURNISH AN INSTALL, UNLESS NOTED OTHERWISE, ALL THERMOSTATS, SENSORS, CONTROLLERS, RELAYS, CONTACTORS, DAMPERS, ACTUATORS, TUBING, CONTROL WIRING AND ALL OTHER ITEMS AND MATERIALS NECESSARY FOR A COMPLETE AND PROPERLY OPERATING TEMPERATURE CONTROL SYSTEM AS SPECIFIED BELOW. ALL THERMOSTATS AND OTHER CONTROL COMPONENTS SHALL BE HONEYWELL, OR APPROVED EQUAL, UNLESS SPECIFIED OTHERWISE. ALL CONTROL WIRING SHALL BE BY MECHANICAL CONTRACTOR AND SHALL BE INSTALLED IN CONDUIT.

9.11 THERMOSTAT: TRANE 7–DAY PROGRAMMABLE, THERMOSTAT TO CONTROL THE OPERATION OF EACH RTU OR SPLIT SYSTEM . MOUNT THERMOSTAT AT 4'–0" A.F.F. AND PROVIDE LOCKING CLEAR PLASTIC COVER. PROVIDE SMOKE DETECTOR AND CO2 SENSORS .

9.12 (A) WHERE SEPARATE HEATING AND COOLING EQUIPMENT SERVES THE SAME TEMPERATURE ZONE, THERMOSTATS SHALL BE INTERLOCKED TO PREVENT SIMUTANANEOUS HEATING AND COOLING EXCEPT FOR HUMIDITY CONTROLS.

(B) THE SYSTEM SHALL BE CONTROLLED BY MANUAL CHANGEOVER OR CAPABLE OF RETAINING PROGRAMMING AND TIME SETTING DURING DUAL SET–POINT THERMOSTAT, A LOSS POWER FOR A PERIOD OF AT LEAST 10 HOURS (3)

(C) SYSTEMS SERVING SPACES OTHER THAN HOTEL/MOTEL GUEST ROOMS. AND OTHER THAN THOSE REQUIRING CONTINUOUS OPERATION, WHICH HAVE BOTH A COOLING OR HEATING CAPACITY GREATER THAN 15,000 BTU/H AND A SUPPLY FAN MOTOR POWER GREATER THAN HP, SHALL BE PROVIDED WITH A TIME CLOCK THAT (1) CAN START AND STOP THE SYSTEM UNDER DIFFERENT SCHEDULES FOR SEVEN DIFFERENT DAY–TYPES PER WEEK, (2) IS CAPABLE OR RETAINING PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR A PERIOD OF AT LEAST 10 HOURS, (3) INCLUDES AN ACCESSIBLE MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO TWO HOURS, (4) IS CAPABLE OF TEMPERATURE SETBACK DOWN TO 55F DURING OFF HOURS, AND (5) IS CAPABLE OF TEMPERATURE SETUP TO 90F DURING OFF HOURS.

– TESTING, ADJUSTING, BALANCING

9.51 NEBB OR AABC CERTIFIED TESTING AND BALANCING CONTRACTOR SHALL BE RESPONSIBLE FOR THE TESTING AND BALANCING OF EVERY HEATING, VENTILATING AND AIR CONDITIONING SYSTEM. THE PERSON OR AGENCY RESPONSIBLE FOR BALANCING OF THE SYSTEMS SHALL DOCUMENT IN WRITING THE AMOUNT OF OUTDOOR AIR BEING PROVIDED AND DISTRIBUTED FOR THE BUILDING OCCUPANTS AND ANY OTHER SPECIALTY VENTILATION. TWO (2) COPIES OF A WRITTEN REPORT IN NEBB OR AABC FORMAT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

9.52 AIR SYSTEMS SHALL BE BALANCED IN A MANNER TO MINIMIZE LOSSES FROM DAMPER THROTTLING BY FIRST ADJUSTING FAN SPEED THEN ADJUSTING DAMPERS TO MEET DESIGN FAN/V CONDITIONS. DAMPER THROTTLING ALONE MAY BE USED FOR AIR SYSTEM BALANCING WITH FAN MOTORS OF 1 HP OR LESS, OR IF THROTTLING RESULTS IN NO GREATER THAN 1/3 HP FAN HORSEPOWER DRAW ABOVE THAT REQUIRED IF THE FAN SPEED WERE ADJUSTED.

9.53 HVAC CONTROL SYSTEMS SHALL BE TESTED TO ASSURE THAT CONTROL ELEMENTS ARE CALIBRATED, ADJUSTED, AND IN PROPER WORKING CONDITION.

9.54 WHERE EXISTING EQUIPMENT IS REUSED PER OWNER INSTRUCTIONS, BALANCE SYSTEM FOR BEST PERFORMANCE.

9.55 BALANCE THE SYSTEM PER:
1) 6.7.2.3.1 NEBB PROCEDURAL STANDARD–2019 PROCEDURAL STANDARDS F19 BUILDING SYSTEMS COMMISSIONING OR
2) 6.7.2.3.1 AABC 2020 ASSOCIATED AIR BALANCE COUNCIL TEST AND BALANCE PROCEDURES, OR
3) 6.7.2.3.1 ASHREA STANDARD 111– 2011 PRACTICES FOR MEASUREMENT, TESTING, ADJUSTING AND BALANCING OF BUILDING HEATING, VENTILATION, AIR–CONDITIONING AND REFRIGERATION, OR LATEST ADOPTED REVISION.

– GENERAL PROVISIONS SUMMARY – REF MEP–1

0.01 PERFORMANCE: ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK SPECIFIED, INDICATED AND REQUIRED UNLESS OTHERWISE NOTED, INCLUDING FINAL CONNECTIONS, IN A WORKMANLIKE MANNER USING WORKERS SKILLED AND EXPERIENCED IN THE TRADE.

0.02 SITE EXAMINATION: EXAMINE SITE BEFORE BIDDING. CLAIM NO EXTRAS RESULTING FROM LACK OF KNOWLEDGE OF SITE CONDITIONS. IF SITE CONDITIONS REQUIRE MODIFICATION OF THE SYSTEMS INDICATED IN THESE DOCUMENTS, SO ADVISE ENGINEER, AND IF ACCEPTED BY ENGINEER, INCLUDE COST OF SUCH MODIFICATIONS IN BID. REFERENCE CIVIL DRAWINGS FOR SITE UTILITIES.

0.03 JOB SITE CONDITIONS: ACCEPT SOLE AND COMPLETE RESPONSIBILITY FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.

0.04 FULL FUNCTION: PROVIDE ALL MINOR ITEMS NECESSARY FOR A COMPLETE AND FULLY FUNCTIONAL INSTALLATION.

0.05 ADMINISTRATION: PROVIDE EVIDENCE OF LICENSER, BONDING, AND INSURANCE, AND PERFORM OTHER ADMINISTRATIVE FUNCTIONS, AS REQUIRED.

0.06 PERMITS: PROCURE AND PAY FOR ALL REQUIRED PERMITS AND SERVICE CHARGES.

0.07 COORDINATION: CONFORM TO GENERAL CONSTRUCTION CONTRACT DOCUMENTS EXCEPT AS MODIFIED HEREIN. REFER ALSO TO STRUCTURAL AND MECHANICAL CONTRACT DOCUMENTS. COORDINATE ALL WORK WITH OTHER TRADES.

0.08 CUTTING AND PATCHING: CUT AND PATCH AS REQUIRED. CUT OR WELD STRUCTURAL MEMBERS ONLY WITH APPROVAL OF STRUCTURAL ENGINEER. PATCHING SUBJECT TO APPROVAL BY ARCHITECT.

0.09 EXISTING FLOORS: TRENCH EXISTING FLOORS PER LANDLORD (SEE CONCRETE SECTION OF LL'S SPECIFICATIONS FOR TENANT FINISH OUT FOR REQUIREMENTS.)

0.10 ROOF PENETRATIONS: COORDINATE WITH LANDLORD.

0.11 MECHANICAL SUBSTITUTIONS: INVOICE MECHANICAL CONTRACTOR, NOT TENANT, FOR COSTS INCURRED DUE TO SUBSTITUTION OF MECHANICAL EQUIPMENT HAVING ELECTRICAL REQUIREMENTS DIFFERING FROM THOSE INDICATED.

0.12 ADJUSTMENTS: MAKE MINOR ADJUSTMENTS TO WORK WHERE REQUESTED BY TENANT, WHEN SUCH ADJUSTMENTS ARE NECESSARY TO PROPER OPERATION AND WITHIN THE INTENT OF THE CONTRACT.

0.13 REFERENCE STANDARDS: COMPLY WITH NEC, T.A.S., AND APPLICABLE STANDARDS OF NFPA, ANSI, NEMA AND UL, EXCEPT AS SUPERSEDED BY LOCAL AUTHORITY. HAVE ON CONTRACT DOCUMENTS WHERE THEY EXCEED CODE MINIMUM REQUIREMENTS.

0.14 LOCAL REQUIREMENTS: COMPLY WITH THE REQUIREMENTS OF LOCAL CODES, LANDLORD, SERVING UTILITY, AND THE LOCAL AUTHORITY HAVING JURISDICTION. SECURE APPROVAL OF INSTALLATION BY LANDLORD, LOCAL AUTHORITY, AND OTHERS AS REQUIRED.

0.15 SCHEDULE: ORDER EQUIPMENT WITHIN 5 DAYS OF RECEIPT OF CONTRACT TO MAINTAIN CONSTRUCTION SCHEDULE.

0.16 MATERIALS AND EQUIPMENT: PROVIDE NEW, UL LISTED, COMMERCIAL GRADE MATERIALS, DEVICES, EQUIPMENT, AND FIXTURES, SUITABLE FOR ENVIRONMENT. REUSE EXISTING ONLY WHEN COMPLIANT WITH THE CONTRACT DOCUMENTS, IN GOOD CONDITION, AND APPROVED BY THE ENGINEER.

0.17 TEMPORARIES: FURNISH, INSTALL, AND REMOVE TEMPORARY LIGHTING AND POWER FOR ALL TRADES AS REQUIRED.

0.18 INSTALLATION: INSTALL ALL MATERIALS, EQUIPMENT AND SYSTEMS IN FULL ACCORD WITH MANUFACTURERS' INSTRUCTIONS.

0.19 COMMISSIONING: THOROUGHLY TEST AND DEMONSTRATE PROPER OPERATION OF ALL SYSTEMS AND EQUIPMENT FURNISHED OR INSTALLED UNDER THIS CONTRACT. VERIFY PROPER MOTOR ROTATION OF ALL EQUIPMENT.

0.20 O & M MANUALS: AT COMPLETION OF PROJECT,, PROVIDE TO TENANT ALL OPERATING AND MAINTENANCE MANUALS AND INFORMATION FOR MATERIAL, EQUIPMENT AND SYSTEMS INSTALLED UNDER THIS CONTRACT.

0.21 CORRECTIVE PERIOD: PROVIDE A CORRECTIVE PERIOD FROM DATE OF FINAL ACCEPTANCE OF NOT LESS THAN ONE (1) YEAR FOR THE ENTIRE INSTALLATION, DURING WHICH PERIOD UNCONDITIONALLY MAKE GOOD ANY DEFECTS IN MATERIALS OR WORKMANSHIP WITHOUT COST TO TENANT.

0.22 DRAWINGS ARE DIAGRAMMATIC: VERIFY ALL DIMENSIONS AND LENGTHS, AND ADJUST EQUIPMENT AND RACEWAY LOCATIONS TO AVOID CONFLICTS WITH OTHER CONSTRUCTION.

0.23 DOCUMENT PRIORITY: DRAWING INDICATIONS AND NOTATIONS SUPERSEDE THESE SPECIFICATIONS. USE A COMPLETE SET OF DRAWINGS.

0.24 RATINGS: REFER TO DRAWINGS AND SCHEDULES FOR ADDITIONAL RATINGS AND REQUIREMENTS.

0.25 PROJECT REQUIREMENTS: REFER TO DRAWINGS FOR PARTICULAR PROJECT REQUIREMENTS, AS NOT ALL ITEMS SPECIFIED MAY BE REQUIRED FOR THIS PROJECT.

0.26 DOCUMENT ERRORS: NOTIFY THE ENGINEER OF ERRORS, DISCREPANCIES OR OMISSIONS BEFORE CONSTRUCTION OR FABRICATION OF AFFECTED WORK, OR, FAILING SUCH NOTICE, BE RESPONSIBLE FOR CORRECTING SAME.

0.27 CERTIFICATION: PROFESSIONAL ENGINEER CERTIFICATION OF THESE DOCUMENTS DOES NOT EXTEND TO STANDARDIZED DESIGN OR INSTALLATION GUIDELINES PREPARED BY OTHERS AND REQUIRED BY A THIRD PARTY TO BE INCLUDED HEREON.

16100 – MATERIALS

1.01 RACEWAY: CONTINUOUS SYSTEM, 3/4" MINIMUM EMT EXCEPT: 3/4" MINIMUM RNC WITH GROUND CONDUCTOR WHERE EMBEDDED IN CONCRETE OR MASONRY; 3/4" MINIMUM GALVANIZED RMC OR IMC WHERE EXPOSED TO WEATHER (ALSO PERMITTED WHERE EMBEDDED IN CONCRETE OR MASONRY); AND FMC (OR LITMC IF WET LOCATION) FOR SHORT FINAL CONNECTIONS TO LIGHTING FIXTURES, TRANSFORMERS, AND MECHANICAL EQUIPMENT. REFERENCE 1.09.

1.02 IG RACEWAY: PROVIDE SEPARATE RACEWAY SYSTEM FOR IG CIRCUITS.

1.03 RACEWAY INSTALLATION: CONCEAL RACEWAY IN FINISHED SPACES. ROUTE SQUARE WITH BUILDING LINES AND PROPERLY SUPPORT. DO NOT ATTACH TO OR PENETRATE HVAC DUCTS. MAINTAIN HEADROOM AND EQUIPMENT AND FLUE CLEARANCE. FIRE/SMOKE – SEAL PENETRATIONS OF RATED CONSTRUCTION.

1.04 RACEWAY ADJUSTMENTS: WHERE INDIVIDUAL HOME RUNS ARE SHOWN FOR CLARITY, COMBINE AND ADJUST RACEWAY SIZE PER FIELD CONDITIONS.

1.05 WIRE: TYPE THHN, COPPER ONLY, 12AWG MINIMUM, STRANDED FOR 8AWG AND LARGER. LV WIRING FOR EMERGENCY LIGHTING, 10AWG MINIMUM.

1.06 COLOR CODE: COLOR CODE ENTIRE WIRING SYSTEM FROM SERVICE DISCONNECT OR TRANSFORMER THROUGHOUT ALL BRANCH CIRCUITS AS FOLLOWS:

SYSTEM VOLTAGE	CONDUCTOR TYPE	COLOR
208Y/120	PHASE A	BLACK
	PHASE B	RED
	PHASE C	BLUE
	NEUTRAL	WHITE
	EQUIPMENT GROUND	GREEN
	ISOLATED GROUND	GREEN W/YELLOW STRIPE

1.07 WIRE SIZE: WHERE WIRES ARE SIZED PER 60 DEG. C TEMPERATURE RATING FOR SIZES UP TO 1 AWG, SUBJECT TO COMPLIANCE WITH EQUIPMENT UL LISTING, AND APPROVAL OF LOCAL AUTHORITY AND ENGINEER, SUCH WIRES MAY BE REDUCED TO 75 DEG. C RATED SIZE, WITH RACEWAY SIZE ADJUSTED ACCORDINGLY. WIRE SIZE PER 90 DEG. C TEMPERATURE RATING IS NOT APPROVED.

1.08 VOLTAGE DROP: FOR CONDUCTORS SIZED PER NEC ON DRAWINGS, INCREASE SIZE BY NUMBER OF STANDARD SIZES SHOWN IN TABLE TO COMPENSATE FOR VOLTAGE DROP. CONTACT ENGINEER FOR ASSISTANCE IF CIRCUIT LENGTH FROM SOURCE TO LOAD EXCEEDS MAXIMUMS SHOWN.

CCT VOLTS/PH	CCT LENGTH FT.	UPSIZE
120/1	75–150	1
120/1	150–200	2
208/3	150–200	1
208/3	200–250	2

1.09 TYPE MC CABLE: MC CABLE EQUIPPED WITH A GREEN INSULATED GROUND PERMITTED FOR BRANCH CIRCUITS IN CONCEALED LOCATIONS ONLY SUBJECT TO APPROVAL OF TENANT, LANDLORD, AND LOCAL AUTHORITY. REF. 330.30

1.10 SPLICES: SPLICE ONLY IN ACCESSIBLE JUNCTION BOXES, USING "WIRENUT" CONNECTORS FOR 8AWG AND SMALLER, OR MECHANICAL COMPRESSION CONNECTORS WITH INSULATION KIT FOR 6AWG AND LARGER.

1.11 BOXES: NEMA OS1 IN INTERIOR DRY LOCATIONS, CAST WEATHERPROOF TYPE IN WET LOCATIONS.

1.12 RECESSED FLOOR BOXES: FLUSH, CAST SIZE AS INDICATED ON DRAWING. INSTALL CONCEALED BENEATH CASEWORK OR EQUIPMENT WITH PLASTIC COVER PLATE AND BRASS CARPET/TILE FLANGE. HUBBELL # PLASTIC FLOOR BOX #PFB1 WITH PLASTIC COVER #PFBCGY AND PLASTIC FLOOR ADAPTER #PFBA1, OR APPROVED EQUAL. HUBBELL #PFB1–PFBCGY–PFBA1.

1.13 POKE–THRU: STEEL CITY #PT–200 WITH PT–300 SERIES SERVICE FITTING HEAD OR HUBBELL APPROVED EQUAL.

1.14 WALL SWITCHES: FED SPEC W–S–896, AC GENERAL USE, 20 AMP, 120–277 VOLT, TOGGLE HANDLE. INSTALL 48" A.F.F. TO CENTER. INSIDE DOOR ON WALL, KNOB/HANDLE SIDE OF DOOR. PROVIDE OCCUPANCY SENSOR SWITCHES FOR OFFICES AND DOUBLE SWITCH LARGER OPEN AREAS PER 2021 ENERGY CODE. LATEST ADOPTED REVISION .

1.15 WALL RECEPTACLES: FED SPEC W–C–596, NEMA 5–15R CONFIGURATION OR AS REQUIRED. PROVIDE IF (ISOLATED GROUND) AND GFCI/WP (GROUND–FAULT CIRCUIT INTERRUPTER) RECEPTACLES WHERE APPROPRIATE OR INDICATED. INSTALL 18" A.F.F. TO CENTER, OR AS INDICATED. REF. 210.8,210.63 . ALL KITCHEN OUTLETS GFI PER CODE. PROVIDE ARC FAULT C/B'S PER ARTICLE 210.12 IN SLEEPING AREAS.

1.16 WALL PLATES: SMOOTH PLASTIC–STAINLESS STEEL IN KITCHEN.

1.17 WALL DEVICE AND PLATE COLOR: MATCH ADJACENT SURFACE, OR AS DIRECTED BY ARCHITECT. PROVIDE ORANGE IG RECEPTACLES. RED EMERGENCY RECEPTACLES.

1.18 MULTI–OUTLET ASSEMBLY: PROVIDE WIREMOLD PLUGMOLD MODEL G20GBA512, GRAY COLOR, ALTERNATE WIRING, 12" SPACING, FIELD CUT AS REQUIRED. INSTALL PLUG STRIP FURNISHED BY TENANT, IF SO NOTED.

1.19 MANUFACTURED WIRING SYSTEMS: PERMITTED FOR BRANCH CIRCUITS SUBJECT TO APPROVAL OF TENANT, LANDLORD, AND LOCAL AUTHORITY.

1.20 GROUNDING: PROVIDE CONTINUOUS, PERMANENT, AND EFFECTIVE GROUNDING SYSTEM. GROUND SEPARATELY DERIVED SYSTEMS TO NEAREST EFFECTIVELY GROUNDED BUILDING STRUCTURAL STEEL. REF. 250–50,300.5 ,2021 NEC OR LATEST ADOPTED REVISION.

16400 – EQUIPMENT

4.01 DISCONNECT SWITCH: NEMA KS1, GENERAL DUTY, 3 POLE, S/N IF NEUTRAL IS PRESENT, 3R ENCLOSURE IF OUTDOORS, LOCK–OFF, NON–FUSIBLE UNLESS INDICATED WITH FUSES. REF. 230.70 1.1, AMENDED.

4.02 SWITCHBOARDS – SQ–D QED STYLE –SEE DRAWINGS FOR APPLICABILITY. "MDP" PANELS SQ D I–LINE HEAVY DUTY PANELS.

4.03 PANELBOARD: NEMA PB1 AS SCHEDULED, 20" WIDE SECTION, 225 AMP BUS (100 AMP BUS PERMITTED IF LESS THAN 30 BRANCH POLES). PROVIDE GROUND BUS FOR IG CIRCUITS. INSTALL PER NEMA PB1.1. BALANCE PHASE CURRENTS TO 10% MAXIMUM VARIATION. PROVIDE TYPEWRITTEN BRANCH CIRCUIT DIRECTORY. LOAD CENTERS NOT APPROVED. REUSE EXISTING IF APPLICABLE AND STILL MEETS CODE REQUIREMENTS. SQ–D OR TRUE EQUAL. PROVIDE AND INSTALL MVC SURGE PROTECTION PRIOR TO ENERGIZING PANELS. PH 800–583–4773 .

4.04 CIRCUIT BREAKER: NEMA AB1 AS SCHEDULED, BOLT–ON, CENTER TRIP, SWD IF SINGLE POLE, COMMON TRIP IF MULTI–POLE, HACR IF REQUIRED BY LOAD. MINIMUM INDIVIDUALLY RATED INSTALLED A/C: 277/480 VOLT – 10,000 A/C, 120/208 VOLT – 10,000 A/C. MATCH EXISTING EQUIPMENT WHERE APPLICABLE.

4.05 FUSE: UL CLASS RK5–R. PROVIDE 3 SPARE OF EACH SIZE AND TYPE.

4.06 MAGNETIC MOTOR STARTER: NEMA ICS2, FVNR, SIZE PER MOTOR REQUIREMENTS BUT SIZE 0 MINIMUM, 3R ENCLOSURE IF OUTDOORS. PROVIDE CLASS 20 HEATERS PER ACTUAL MOTOR NAMEPLATE DATA. PROVIDE 120VAC OR 24VAC FUSED CONTROL CIRCUIT AS REQUIRED. SQ–D OR EQUAL.

4.07 MANUAL MOTOR STARTER: NEMA RATED, FHP, SINGLE SPEED, TOGGLE OPERATED, MANUAL RESET OVERLOAD, NEMA 1 ENCLOSURE.

4.08 CONTACTOR: ASCO 917 SERIES, ELECTRICALLY OPERATED, MECHANICALLY HELD, CONFIGURED FOR 2–WIRE CONTROL, OR EQUAL. REFER TO CONTACTOR SCHEDULE FOR NUMBER OF POLES AND CONTROL.

4.09 TIME SWITCH: PARAGON MODEL EC71/30S, OR APPROVED EQUAL, 7–DAY, 30 SETPOINT, 100 HOUR RIDE THROUGH.

– LIGHTING

5.01 TENANT – FURNISHED EQUIPMENT: FOR LIGHT FIXTURES AND AUXILIARY ITEMS SCHEDULED AS FURNISHED BY TENANT, RECEIVE, PROTECT, INSTALL, CLEAN, AND LAMP LIGHT FIXTURES AS SCHEDULED, OR EQUAL.

5.02 CONTRACTOR – FURNISHED EQUIPMENT: FOR LIGHT FIXTURES SCHEDULED AS FURNISHED BY CONTRACTOR, FURNISH AND INSTALL COMPLETE, OR APPROVED EQUAL.

5.03 ACCESSORIES: PROVIDE ACCESSORIES, INCIDENTAL MATERIALS AND MOUNTING HARDWARE AS REQUIRED.

5.04 LOCATION: REFER ALSO TO ARCHITECTURAL DRAWINGS FOR FIXTURE LOCATIONS AND MOUNTING DETAILS.

5.05 INSTALLATION: PROPERLY INSTALL AND SUPPORT ALL FIXTURES PLUMB AND TRUE, AND FREE OF LIGHT LEAKS. CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY PRACTICE. LEAVE PROTECTIVE FILM IN PLACE ON FIXTURES UNTIL FINAL CLEAN–UP. INSTALL LIGHT FIXTURES IN RATED CEILINGS TO MAINTAIN THE RATING OF CEILING.

5.06 EMERGENCY LIGHTING: PROVIDE AND LOCATE EMERGENCY LIGHTING TO MEET LOCAL REQUIREMENTS AT EXITS AND TO ILLUMINATE EGRESSWAYS.

5.07 FLUORESCENT FIXTURES: IF FURNISHED BY CONTRACTOR, PROVIDE ELECTRONIC HPF, RAPID START, PARALLEL LAMP OPERATION, CBM, TYPE 1, CLASS P, SOUND RATED A, THD<20%, CCF<1.5, NAECA COMPLIANT WHERE APPLICABLE, ENERGY SAVING BALLASTS. LSI OR EQUIVALENT.

5.08 RECESSED INCANDESCENT FIXTURES: IF FURNISHED BY CONTRACTOR, PROVIDE FMC AND 150 DEGREE C FIXTURE WIRE FROM LAMP HOUSING TO INDEPENDENT BRANCH CIRCUIT OUTLET BOX. LITHONIA, HACO, OR EQUIVALENT.

5.09 HID FIXTURES: IF FURNISHED BY CONTRACTOR, PROVIDE ANSI C82.4 COMPLIANT, HPF, ENCAPSULATED BALLASTS, ADVANCE SERIES 73B OR EQUAL. ABOLITE OR EQUIVALENT, LSI OR EQUIVALENT.

5.10 FINAL ADJUSTMENT: AFTER TRADE FIXTURES ARE INSTALLED BY OTHERS, CLEAN ALL LIGHTING FIXTURES, REPLACE ALL EXPIRED LAMPS, AND ADJUST DIRECTIONAL LIGHTING AS DIRECTED BY TENANT AND ARCHITECT.

5.11 SIGN DISCONNECT: PROVIDE DISCONNECT SWITCH IN ACCESSIBLE CEILING SPACE FOR SIGNAGE AND MAKE FINAL CONNECTIONS. VERIFY LOCATION IN FIELD. SIGN FURNISHED AND INSTALLED BY OTHERS. VERIFY VOLTAGE AND CIRCUIT QUANTITY.

5.12 LABEL PANELS: PROVIDE PERMANENT LABEL FOR PANELS INCLUDING FAULT CURRENT VALUE SHOWN ON PANEL SCHEDULE. INCLUDE INTEGRATED SYSTEM RATING ON LABEL FOR FIELD REFERENCE.

– SYSTEMS

7.01 FIRE ALARM SYSTEM: FURNISH, INSTALL, CONNECT AND TEST A FULLY–FUNCTIONAL NEW FIRE ALARM INTERFACED TO MAIN ALARM. PROVIDE, WHERE INDICATED, DEVICES APPROVED BY THE OPERATOR OF THE EXISTING BUILDING SYSTEM AND COMPLY WITH ALL REQUIREMENTS. COORDINATE SYSTEM IF REQUIRED BY FIRE MARSHALL . OC MUST USE OWNER'S FIRE ALARM CONTRACTOR (@ OWNER'S EXPENSE), SEE "LANDLORD REQUIRED CONTRACTORS" DOCUMENT FOR TENANTS. PROVIDE SHOP DRAWINGS BY LICENSED FIRE ALARM CONTRACTOR.

7.02 DUCT SMOKE DETECTORS; CONNECT DUCT SMOKE DETECTORS FURNISHED AND INSTALLED BY DIVISION 15 TO FIRE ALARM SYSTEM AS REQUIRED. INSTALL AND CONNECT TEST STATIONS FURNISHED BY DIVISION 15.

7.03 AREA SMOKE DETECTORS: PROVIDE COMPATIBLE AREA PHOTOELECTRIC SMOKE DETECTORS AS INDICATED AND REQUIRED BY FIRE MARSHALL AT ELEVATORS, CORRIDORS, AND SLEEPING AREAS PER NFPA.

7.04 INDICATING APPLIANCES: PROVIDE ADA COMPLIANT HORN/STROBE UNITS AS INDICATED AND REQUIRED. COMPLY WITH T.A.S./A.D.A. REVIEW COMMENTS. COMPLY WITH TABLE 7.5.4.1.1 (A) 2021 NFPA 72 FOR PROPER CANDELA RATINGS COVERAGE. AN EXISTING SYSTEM NEEDS TO BE ADJUSTED FOR NEW WALL.

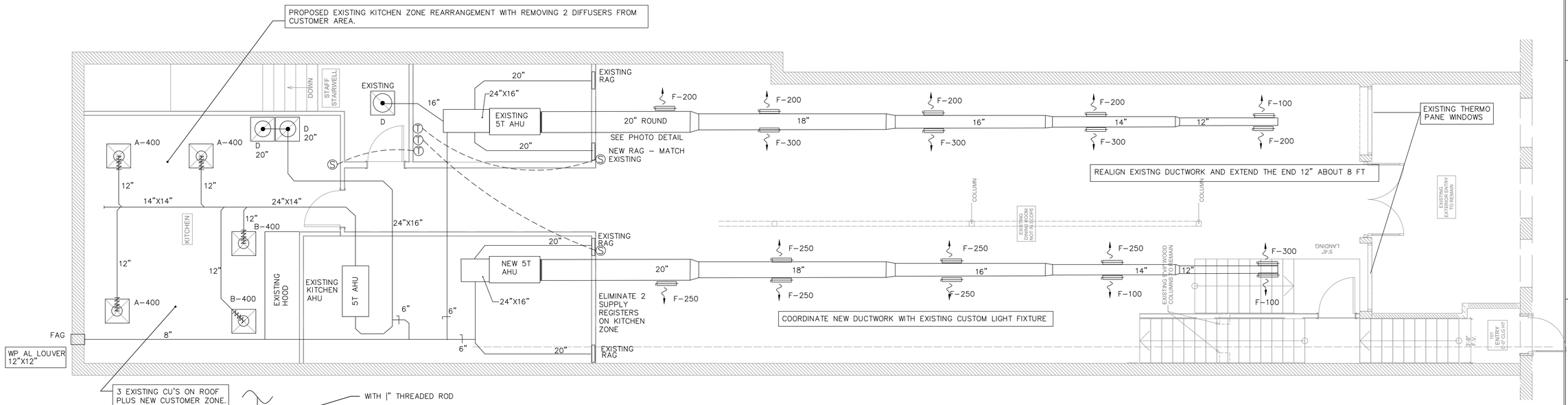
7.05 SECURITY SYSTEM ROUGH–IN: PROVIDE CONTINUOUS RACEWAY SYSTEM WITH PULL WIRE AS INDICATED FOR INSTALLATION OF SECURITY SYSTEMS BY OTHERS.

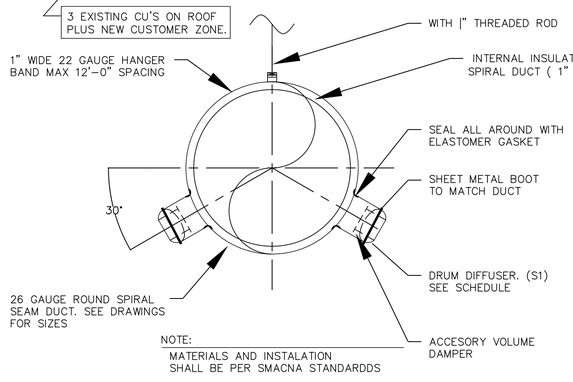
7.06 TELEPHONE SYSTEM ROUGH–IN: PROVIDE DEDICATED CONTINUOUS 3/4" MINIMUM EMT RACEWAY SYSTEM WITH PULL WIRE FROM MAIN INCOMING AT BACKBOARD, TO ALL TELEPHONE OUTLETS. COORDINATE LOCATIONS WITH UNDER FLOOR SERVICES.

7.07 DATA SYSTEM ROUGH–IN: PROVIDE DEDICATED CONTINUOUS 3/4" MINIMUM EMT RACEWAY SYSTEM WITH PULL WIRE FROM DATA SYSTEM EQUIPMENT LOCATION TO ALL DATA SYSTEM OUTLETS. FOR NON–PLENUM ACCESSIBLE CEILING SPACES, AND WHERE APPROVED BY TENANT, LANDLORD, AND LOCAL AUTHORITY, BUSHED RACEWAY STUBS FROM OUTLET BOXES TO CEILING SPACE ARE PERMITTED IN LIEU OF CONTINUOUS SYSTEM. FOR WALL OUTLETS PROVIDE 4" SQUARE OUTLET BOX WITH SINGLE GANG ADAPTER RING AND BLANK PLATE. FOR FLOOR OUTLET PROVIDE FLOOR BOX AS ELSEWHERE SPECIFIED AND BLANK PLATE.

GENERAL ELECTRICAL NOTES

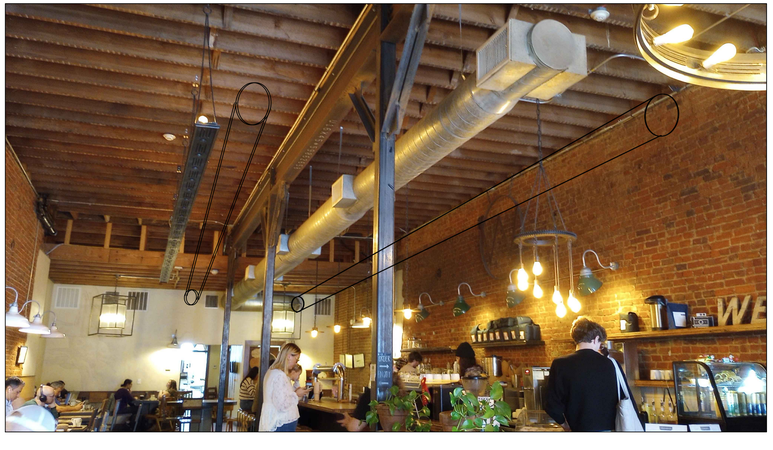
1. ALL CORE BORING OR TRENCHING AND PATCHING OF EXISTING CONCRETE SLAB FLOOR AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL SYSTEMS SHOWN SHALL BE BY THE ELECTRICAL CONTRACTOR. PAINT ALL PATCHING TO MATCH ADJACENT EXISTING SURFACES.
2. ALL CUTTING AND PATCHING OF THE ROOF AS REQUIRED OR THE INSTALLATION OF THE ELECTRICAL SYSTEMS SHOWN SHALL BE BY THE LANDLORD'S ROOFING CONTRACTOR, PAID FOR BY THE TENANT'S ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.
3. EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING MAY BE RE–USED WHERE APPLICABLE, UNLESS NOTED OTHERWISE.
4. REMOVE ALL EQUIPMENT, DEVICES, WIRING AND EXPOSED CONDUIT NOT BEING RE–USED.
5. VERIFY WITH LANDLORD/OWNER IF CONCEALED CONDUIT NOT BEING RE–USED. MAY BE ABANDONED IN PLACE IF APPROVED BY LANDLORD/OWNER ON REMODEL.
6. SPECIFIC CIRCUITS WERE CHOSEN IN ACCORDANCE WITH INFORMATION AVAILABLE, IN ORDER TO CORRESPOND TO THE EXISTING INSTALLATION. ELECTRICAL CONTRACTOR SHALL MAKE MAXIMUM PRACTICAL USE OF EXISTING CONDUIT AND WIRING AND MAY RE–ASSIGN CIRCUITS AS REQUIRED. PROVIDE A TYPEWRITTEN CIRCUIT DIRECTORY IN PANEL–BOARD DOOR(S).
7. WHERE EXTRA HOME RUNS ARE SHOWN FOR CLARITY, ROUTE CONDUIT AND WIRE PER FIELD REQUIREMENTS.
8. ELECTRICAL CONTRACTOR SHALL VERIFY ALL VOLTAGES OF MECHANICAL EQUI





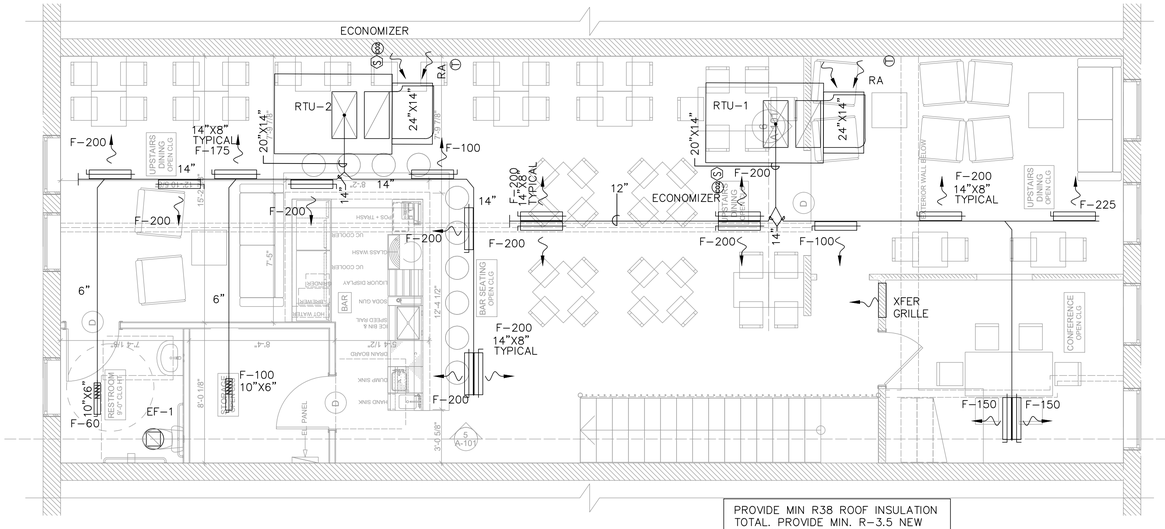
2 SPIRAL DUCT–MATCH EXISTING

SCALE: NONE NEW DUCTWORK AND REWORK REQUIRED.



3 SPIRAL DUCT– REALIGNED

SCALE: NONE



1 HVAC PLAN

SCALE: 1/4" = 1'–0"

MECHANICAL NOTES

1. INSTALL FIRE DAMPERS (F.D.) IN RATED ASSEMBLIES PER CODE. 2. EXISTING EF'S SWITCHED WITH RESTROOM LIGHTS .
2. LINE RETURN AIR DUCTWORK TO CONTROL NOISE. XFGRILL=TRANSFER GRILLE.
3. INSTALL RTU'S ON FACTORY CURBS, WITH VIBRATION ISOLATION., FOR UPSTAIRS NEW BAR.
4. CLOSELY COORDINATE EQUIPMENT LOCATIONS, DUCT CLEARANCES, SIZES AND ROUTING WITH THE ARCHITECT, STRUCTURE AND LIGHTS. PROVIDE OFFSETS AND EQUIVALENT DUCT SIZES AS REQUIRED.
5. WHEN OFFSETS ARE REQUIRED TO ROUTE DUCTWORK (AROUND PIPING, STRUCTURE, OR OTHER DUCTWORK, ETC.) PROVIDE 45 DEGREE ELBOWS IN LIEU OF 90 DEGREE ELBOWS, WHERE POSSIBLE.
6. PROVIDE 18" X 18" ACCESS PANEL FOR ALL DAMPERS IF NOT ACCESSIBLE.
7. SLOPE CONDENSATE DRAINS 1/8" PER FOOT. COORDINATE WITH PLUMBING.
8. MAINTAIN A MINIMUM OF 10' FOR OUTSIDE AIR OPENINGS FROM EXHAUST OPENINGS.
9. ROUND RIGID GALVANIZED DUCT OR FLEXIBLE DUCT RUNOUTS TO AIR DEVICES SHALL BE ROUTED THRU JOIST SPACE, WHERE NECESSARY.
10. DUCT SIZES SHOWN ARE FOR NET FREE AREA. INSULATION IS NOT INCLUDED.
11. PROVIDE CO2 SENSORS TO MODULATE FRESH AIR TO TRACK PEOPLE LOAD ON RTU'S UPSTAIRS.
12. REPLACE EXISTING CONDENSING UNITS AND AHU EVAPORATORS FOR MIN 14.3 SEER.
13. PROVIDE ROOF INSULATION ASSEMBLY MINIMUM OF R–38. PROVIDE NEW THERMAL WINDOWS FOR THE TOP FLOOR EXPANSION (MIN R–3.5). EXPECT THE CUSTOM WINDOWS TO HAVE LONGER LEAD TIMES.
14. RTU–1,2 CONDENSATE TO SINK TRAP.
15. SERVICE THE BASEMENT HVAC SYSTEM SERVING THE OFFICES BELOW THE KITCHEN LEVEL AND BACK.

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02.12.2025

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REVISIONS

HVAC PLAN

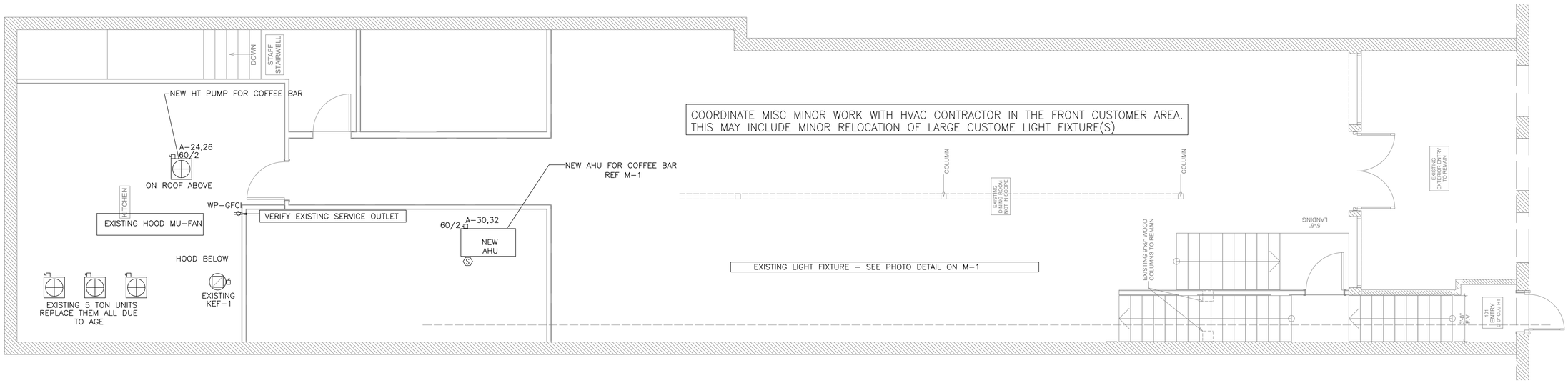
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FED THRU FUSED DISCONNECT

PANEL: A .NQOD STYLE

FEED THRU LUGS

4 W.120 /208 VOLTS 3 PHASE MOUNTING SURFACE ___ FLUSH X

FEEDER 4-3/0 CU + G CONDUIT 2"C PANEL POLES 42

MAIN C/B 200 / 200 AMPS INTEGRATED SYSTEM RATING: 42,000 AMPS

CCT. NO:	SERVICE DESCRIPTION	WIRE & CONDUIT	WATTS	POLE	AMPS	LTS	C.O.	A B C	CCT. NO:	LTS	C.O	POLE	AMPS	WATTS	WIRE & CONDUIT	SERVICE DESCRIPTION
1	OUTLETS	2#12,3/4"C,+EG	1000	1	20				2			1	20	400	2#12,3/4"C,+EG	LIGHTS
3	OUTLETS - HOT WATER	2#12,3/4"C,+EG	1000	1	20				4			1	20	400	2#12,3/4"C,+EG	LIGHTS
5	OUTLETS - POS	2#12,3/4"C,+EG	1000	1	20				6			1	20	1200	2#12,3/4"C,+EG	OUTLET
7	OUTLETS	2#12,3/4"C,+EG	1000	1	20				8			1	20	1000	2#12,3/4"C,+EG	OUTLET
9	OUTLETS	2#10,3/4"C,+G	1000	1	20				10			1	20	800	2#12,3/4"C,+EG	OUTLET
11	OUTLETS	2#12,3/4"C,+EG	1200	1	20				12			1	20	200	2#12,3/4"C,+EG	OUTLET
13	OUTLETS	2#12,3/4"C,+EG	1200	1	20				14			1	20	800	2#12,3/4"C,+G	OUTLET
15	OUTLETS	2#12,3/4"C,+EG	1100	1	20				16			2	30	1000	2#10,3/4"C,+G	BREWER
17	OUTLETS	2#12,3/4"C,+EG	1000	1	20				18				30	1000		
19	OUTLETS	2#12,3/4"C,+EG	1000	1	20				20			1	20	800	2#12,3/4"C,+EG	T.B.D.
21	OUTLETS GLASS WASHER	2#10,3/4"C,+EG	1600	2	30				22			1	20	800	2#12,3/4"C,+EG	T.B.D.
23			1600		30				24			2	50	2600	2#6 ,3/4"C+EG	NEW 5T CU FOR COFFEE BAR
25	SPARE			1	20				26				50	2600		
27	SPARE			1	20				28			1	20			SPARE
29	SIGN - OPEN	2#12,3/4"C,+G	600	1	20				30			2	60	4250	2#6 ,3/4"C+EG	NEW COFFEE BAR AHU
31	SIGNS	2#12,3/4"C,+EG	700	1	20				32				60	4250		7.5 KW BOOST ELECTRIC HEAT
33	RTU-1 4 TON	3#8 ,3/4"C+EG	1800	3	35				34			3	35	1800	3#8 ,3/4"C+EG	RTU-2 4 TON
35	GAS HEAT		1800						36				35	1800		GAS HEAT
37			1800						38				35	1800		
39	SPARE			1	20				40			3	30			FUTURE ADA LIFT
41	SPARE			1	20				42				30			
43	SPARE			1	20				44				30			
45	SPARE			1	20				46							
47	SPARE			1	20				48							
49	SPARE			1	20				50							
51	SPARE			1	20				52							
53	SPARE			1	20				54							

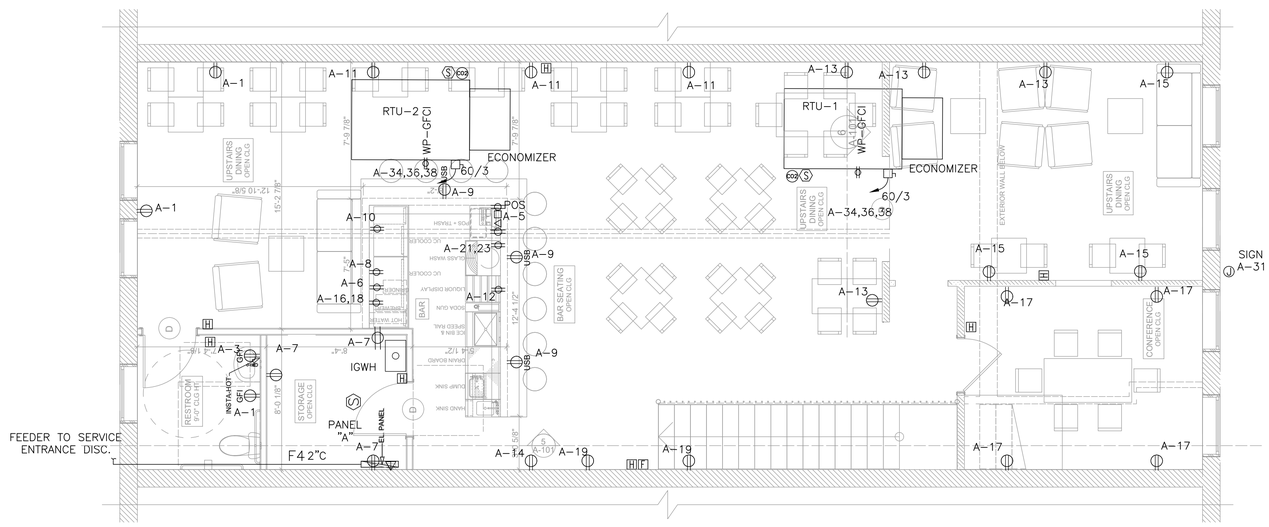
WATTS 47,700 TOTAL CONNECTED WATTS

CONTINUOUS	800	1.25	1,000
NON-CONTINUOUS	17,000	10k+50%	13,500
KITCHEN	5,400	0.65	3,510
COOLING	10,800btu 13700 split HP	1.00	24,500
TOTAL DIVERSIFIED WATTS		-	42,510
TOTAL DIVERSIFIED LOAD AMPS			118 AMPS

18,350
11,100
18,250
winter peak

NOTES: SEE NOTE 1 FOR SIGNAGE COORDINATION

PANEL SUMMARY IS LOAD SUMMARY



NEW UPSTAIRS BAR EQUIPMENT SCHEDULE

NO.	ITEM NAME	QTY.	MANUFACTURER	MODEL	DIMENSIONS WIDTH	DEPTH	HEIGHT	WEIGHT	COLD WATER	HOT WATER	DRAIN	GAS SUPPLY	MECHANICAL SUPPLY	EXHAUST	DUCT SIZE	H.P.	ELECTRIC SERVICE VOLT.	PHASE	AMP	NEMA CONFIG.	REMARKS
01	CABINET, P.O.S.	1	GLASTENDER	PCB-24	24"	24"	37"														
02	COFFEE BREWER	1	CURTIS	G4TP1S63B3100	11.13"	20.75"	24.75"		X	X		-	-	-	-	-	120/220	1	13.8/12.2	-	
03	COFFEE GRINDER	1	MAHLKONIG	EK43 S																	
04	COOLER, UNDER COUNTER	1	GLASTENDER	C1FBT2	72"	24 1/8"	36"		-	-	-	-	-	-	-		120	1	15	5-15P	
05	DRAIN BOARD, W/ GLASS RACK	1	GLASTENDER	DBGR-18	18"	24"	37"														
06	DUMP SINK, W/ DRAIN BOARD	1	GLASTENDER	SWB-18-DB	18"	24"	37"														
07	GLASS WASHER	1	GLASTENDER	GD24HT	24 1/4"	26 7/8"	36 1/4"	281 lb		X	5/8"	-	-	-	-	3/4	60	1			
08	HAND SINK, W/ PAPER TOWEL DISPENSER	1	GLASTENDER	HSB-12-AD	12"	24"	37"														
09	HOT WATER DISPENSER	1	CURTIS	G3 W8SNB	7.5"	24 3/8"	25.75"		X	X		-	-	-	-		120/220	1	12.5/22.7		
10	ICE BIN, W/ SPEED RAIL	1	GLASTENDER	IBA-24	24"	24"	37"														
11	LIQUOR DISPLAY, W/ SPEED RAIL	1	GLASTENDER	LDB-18S	18"	24"	37"														
12	SODA GUN	1	GLASTENDER	SHB-6	6"	24"	21"														

1 POWER PLAN
SCALE: 1/4" = 1'-0"

NOTES:

1. WALKIN COMPRESSORS, HOOD EXHAUST , HOOD MAKEUP FANS COORDINATED TO COMPLY WITH 10 FT RULE FOR EXHAUST FANS AND FRESH AIR INLETS WITH NEW HOOD AND OTHER ROOF EQUIPMENT. ADA LIFT IS ADD ALTERNATE.
2. VERIFY LOCATION OF DENTON F.D. KNOX BOX FOR FIRE DEPARTMENT ACCESS TO ELECTRICAL EQUIPMENT. MAIN DISCONNECT IS OUTSIDE IN REAR SEE E-3.
3. MAX TV POWER IS ASSUMED 250 WATTS FOR SMALLER LED (50"-60")
4. TV OUTLETS AND CATV JACK MOUNTED ABOUT 84"-96" AFF. FIELD VERIFY WITH OWNER.
5. COORDINATE UNDER FLOOR CONDUITS AT BAR WITH WASTE AND WATER TRENCH.
6. AV/LAN LOCATION "▭△": COORDINATE HEIGHT WITH OWNER TYPICALLY FOR "POS" AND "ORDER" SYSTEM. FIELD VERIFY LOCATIONS WITH OWNER PRIOR TO ROUGH INS.
7. TV LOCATIONS "△#": FIELD VERIFY LOCATION - TYPICAL MOUNTING HEIGHT 78" A.F.F.
8. ALL KITCHEN, BAR,EXTERIOR AND RESTROOM OUTLETS ARE GFCI PER CODE. ****

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REVISIONS

POWER PLAN

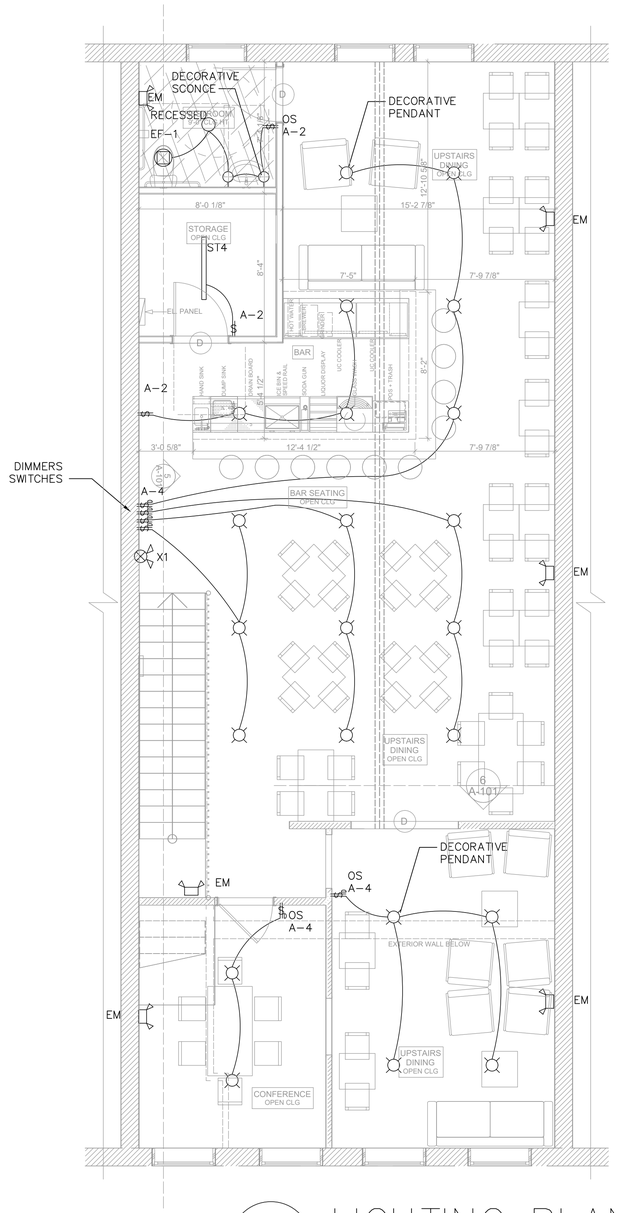
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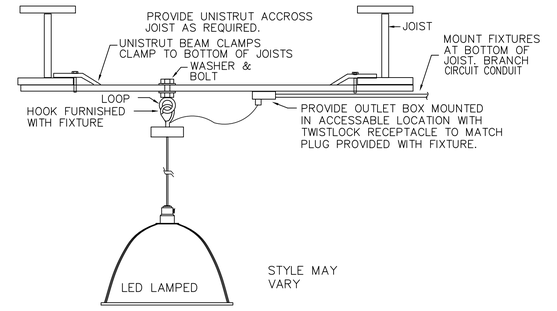
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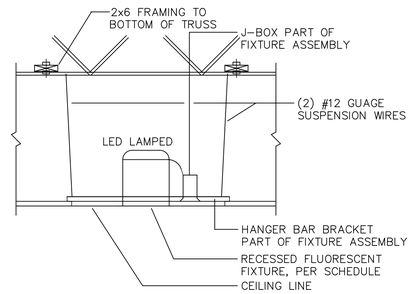
1 LIGHTING PLAN
SCALE: 1/4" = 1'-0"

NOTES:

1. VERIFY SWITCH AND DIMMER BANK LOCATIONS WITH OWNER PREFERENCE PRIOR TO ROUGHINS.
2. COORDINATE HOOD FANS SPEED CONTROL LOCATION WITH OWNER IN KITCHEN .
3. VERIFY SIGN LOCATIONS AND REQUIREMENTS WITH SIGN VENDOR.
4. EMERGENCY LIGHTING WIRED TO LIGHTING CIRCUITS IN THE IMMEDIATE AREA SERVED.
5. LIFE SAFETY SERVED ON NON SWITCHED LEG OF NEARBY CIRCUIT PER CODE.
6. REFERENCE ARCHITECTURAL FOR FIXTURE MODEL SELECTION AND LIGHT DIMENSIONS. REFERENCE COM CHECK REPORT FOR FIXTURE LAMP SIZES.
7. PROVIDE FIXTURE SUBMITTALS FOR REVIEW, PRIOR TO ORDERING LIGHT FIXTURES. PROVIDE GASKETED SHIELDED FIXTURES IN FOOD PREP AREAS WHERE APPLICABLE..
8. LIGHT FIXTURES: RECESSED AND SCONCES 13W LED; DECORATIVE PENDANTS 15W LED ON DIMMERS IN SERVING AREAS.
9. COORDINATE ANY LIGHT FIXTURE RELOCATIONS WITH HVAC AND ARCHITECT.



2 DECORATIVE PENDANT DETAIL
SCALE: N.T.S.



3 RECESSED DOWNLIGHT DETAIL
SCALE: N.T.S.

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EQUIPMENT PLAN

REVISIONS

ISSUE DATE:

Scale:

Drawn: JB

Job: 19-057-001

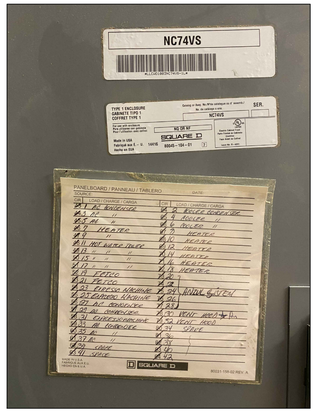
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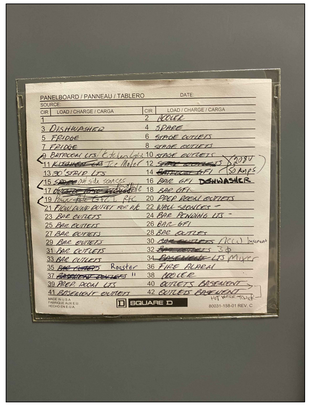
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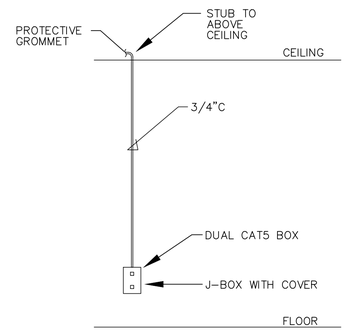






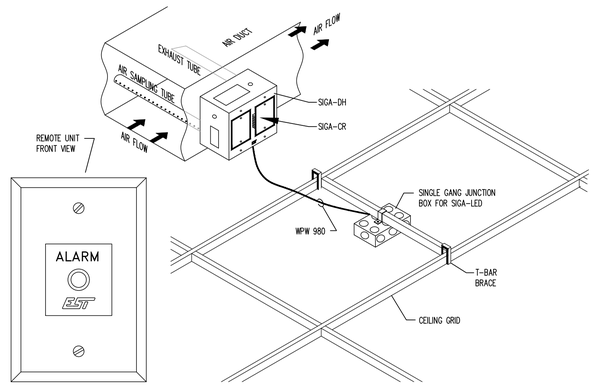
4 EXISTING PANELS – LOWER LEVEL

SCALE: N.T.S.



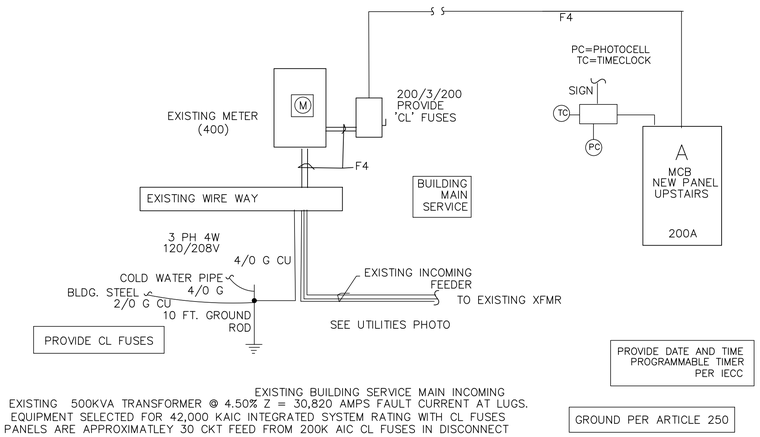
1 DETAIL–DUAL CAT6 BOX

SCALE: N.T.S. ⚠ = SYMBOL ON PLAN



2 DUCT DETECTOR AND REMOTE INDICATOR UNIT (ON CEILING)

SCALE: N.T.S. (MOUNTING DETAIL – TYPICAL)



EXISTING BUILDING SERVICE MAIN INCOMING
EXISTING 500KVA TRANSFORMER @ 4.50% Z = 30,820 AMPS FAULT CURRENT AT LUGS.
EQUIPMENT SELECTED FOR 42,000 KAIC INTEGRATED SYSTEM RATING WITH CL FUSES
PANELS ARE APPROXIMATLEY 30 CKT FEED FROM 200K AIC CL FUSES IN DISCONNECT

3 ELECTRICAL RISER DIAGRAM & EXISTING INCOMING SERVICE

SCALE: N.T.S. THIS WORK REQUIRES A NEW DISCONNECT FOR THE UPSTAIRS NEW PANEL

POWER FEEDER SCHEDULE AND WIRE AND CONDUIT SIZING CHART

REFERENCE ELECTRICAL SPECS FOR UPSIZING WIRE FOR VOLTAGE DROP OR ROOF TEMP ADJUSTMENT

BREAKER	15	20	25	30	35	40	45	50	60	70	80	90	100	125	150	175	200	225	250	300	350	400	450	500	600	700	800	1000	1200	1600	2000	2500	3000	4000
PHASE	#12	#12	#10	#10	#8	#8	#8	#8	#6	#4	#4	#2	#2	#1	#1/0	#2/0	#3/0	#4/0	#250 MCM	#350 MCM	#500 MCM	(2) #3/0	(2) #3/0	(2) #250 MCM	(2) #350 MCM	(2) #500 MCM	(3) #300 MCM	(3) #400 MCM	(4) #350 MCM	(5) #400 MCM	(6) #400 MCM	(7) #500 MCM	(8) #500 MCM	(11) #500 MCM
NEUTRAL	#12	#12	#10	#10	#8	#8	#8	#8	#6	#4	#4	#2	#2	#1	#1/0	#2/0	#3/0	#4/0	#250 MCM	#350 MCM	#500 MCM	(2) #3/0	(2) #3/0	(2) #250 MCM	(2) #350 MCM	(3) #500 MCM	(3) #300 MCM	(3) #400 MCM	(4) #350 MCM	(5) #400 MCM	(6) #400 MCM	(7) #500 MCM	(8) #500 MCM	(11) #500 MCM
GROUND	#12	#12	#10	#10	#10	#10	#10	#10	#10	#8	#8	#8	#8	#6	#6	#6	#6	#4	#4	#4	#2	(2) #2	(2) #2	(2) #2	(2) #1/0	(2) #1/0	(3) #1/0	(3) #2/0	(4) #3/0	(5) #4/0	(6) #250 MCM	(7) #350 MCM	(8) #400 MCM	(11) #500 MCM
CONDUIT	1/2"	1/2"	3/4"	3/4"	1"	1"	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	2"	2"	2"	2-1/2"	2-1/2"	3"	4"	(2) 2-1/2"	(2) 2-1/2"	(2) 2-1/2"	(2) 3"	(2) 4"	(3) 3"	(3) 3"	(4) 3"	(5) 3"	(6) 3"	(7) 4	" (8) 4"	(11) 4"
SERVICE FEEDER TAG									F1				F2		F3		F4	F5	F6	F7	F8	F9		F10		F11	F12	F13	F14					

(*) INDICATES NUMBER OF PARALLEL SETS
NOTE: UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL COPPER CONDUCTORS AND CONDUIT SHALL BE SIZED FROM THIS CHART

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DETAILS & SCHEDULES

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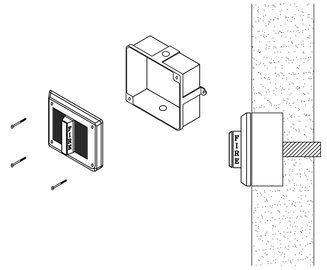
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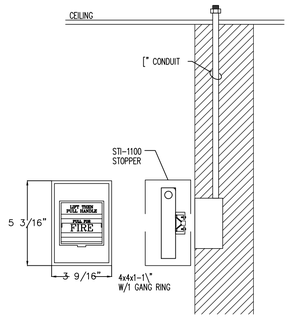
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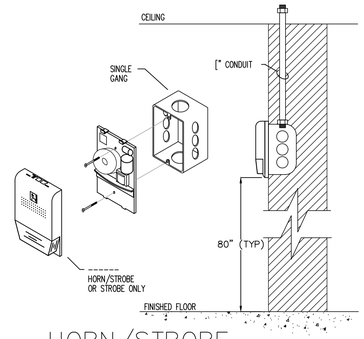
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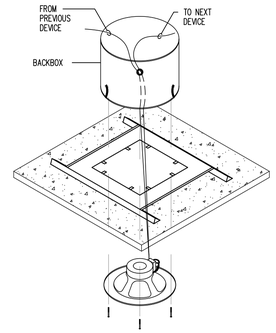
1 HORN/STROBE OUTDOOR FLUSH MOUNT
SCALE: N.T.S. (MOUNTING DETAIL – TYPICAL)



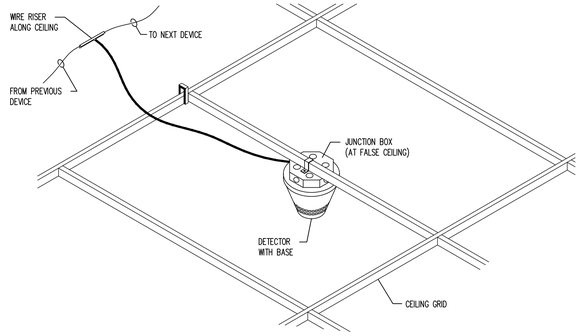
2 MANUAL PULL STATION
SCALE: N.T.S. (MOUNTING DETAIL – TYPICAL)



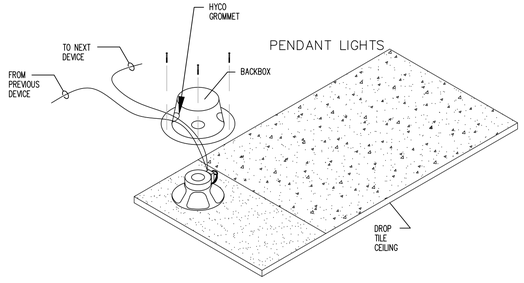
3 HORN/STROBE OR STROBE ONLY
SCALE: N.T.S. (MOUNTING DETAIL – TYPICAL)



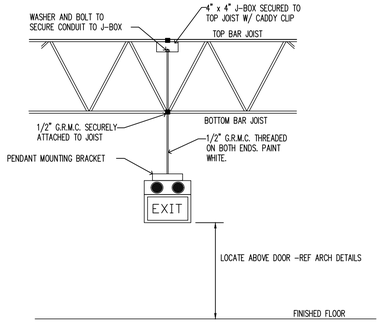
4 FLUSH COAXIAL SPEAKER
SCALE: N.T.S. (MOUNTING DETAIL – TYPICAL)



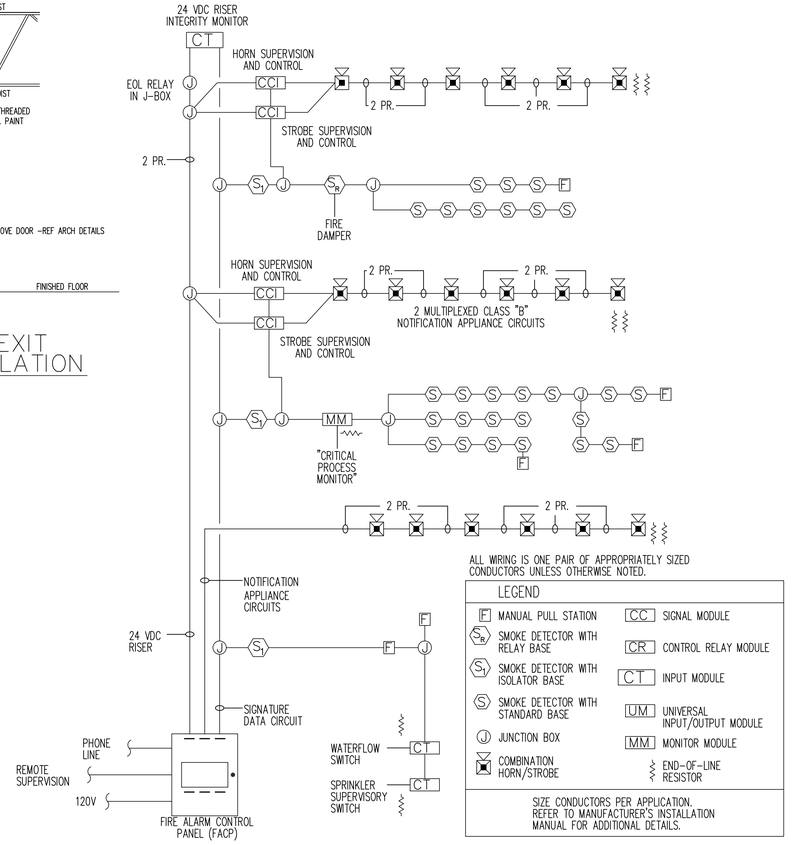
5 SMOKE/HEAT DETECTOR
SCALE: N.T.S. (MOUNTING DETAIL – TYPICAL)



6 FLUSH CEILING SPEAKER
SCALE: N.T.S. (MOUNTING DETAIL – TYPICAL)



7 EMERGENCY/EXIT LIGHT INSTALLATION
SCALE: N.T.S.



PROVIDE SHOP DRAWINGS FOR FIRE ALARM BY LICENSED ALARM COMPANY FOR SUBMITTAL TO THE FIRE MARSHALL. ADD TO ALARM UPSTAIRS

8 SIMPLIFIED FIRE ALARM RISER
SCALE: N.T.S. GENERAL CONFIGURATION (NOT ALL DEVICES NECESSARILY APPLY)

LIGHT FIXTURE SCHEDULE

FIXTURE DESIG.	DESCRIPTION	LAMPS	MFGR & MODEL NO.	REMARKS
SC	KITCHEN–BAR SCONCE	11W LED	SELECTED BY OWNER – ARCHITECT	
P	PENDANT LIGHTS	13W LED	SELECTED BY OWNER – ARCHITECT	ALLOWANCE $ 150 EACH
C	RECESSED 6" DOWNLITE	13W LED	PRESCOLITE # CFR618EB–120 VOLT , HALO OR EQUAL, UE, LED LAMP	INTERIOR DOWNLITES
X1E	EXIT FIXT.	INCLUDED	EXTERIOR EGRESS FIXTURE – MATCH EXIT SIGN	EXISTING BY LL
EM	EMERGENCY FIXTURE	INCLUDED	CRESCENT, CELW–2E–120/277	ECLIPSE SERIES
X	EXIT FIXT.	INCLUDED	CSRW3–2E (CRESCENT) (RED LETTERS)	
X1	EXIT/UNIT COMBO FIXT.	INCLUDED	CRESCENT–CCRW3–2E (RED LETTERS)	

** VERIFY EXACT FIXTURE TYPE WITH ARCHITECT BEFORE INSTALLING

NOTE: SOME FIXTURE TYPES SHOWN MAY NOT BE USED

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Job: 19-057-001

Sheet Number:

E–4



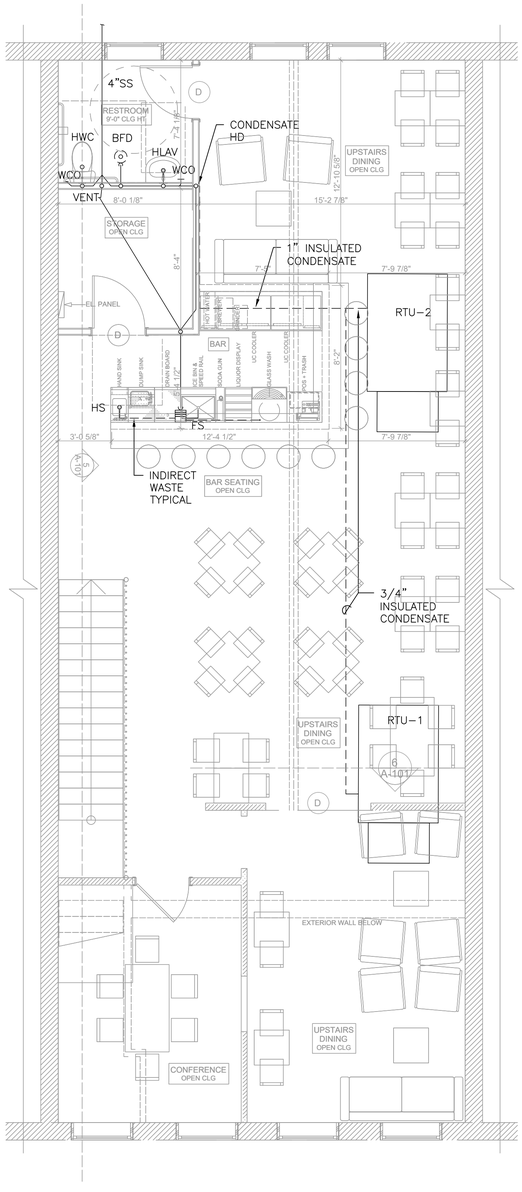
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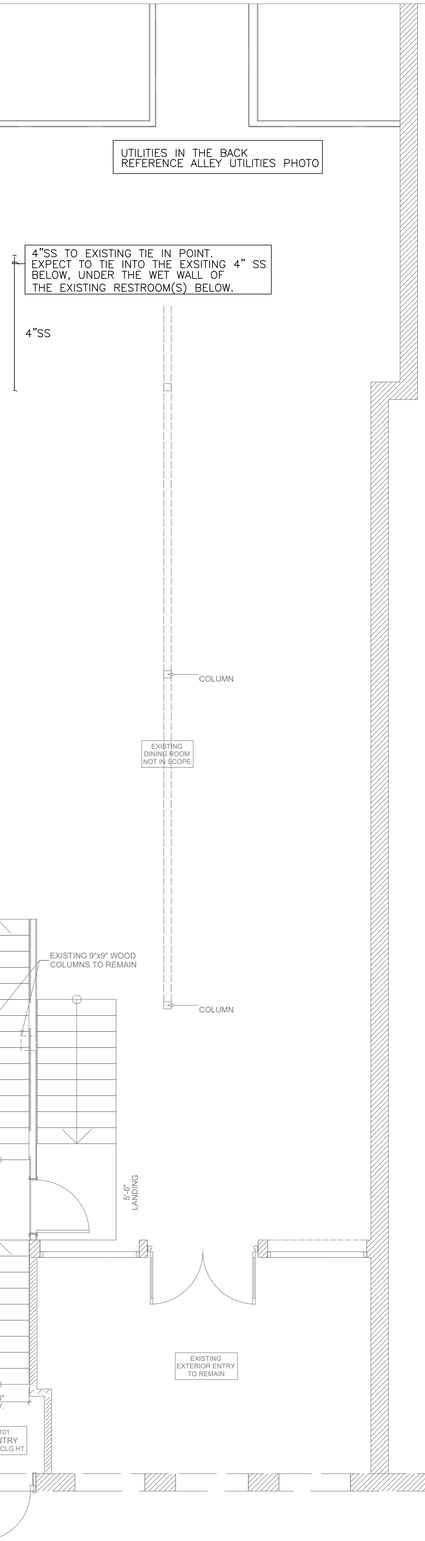
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PREPARE SAW CUT TRENCHES
MINIMUM 24" WIDE, DOWEL REBAR
BACK INTO UNDISTURBED SLAB min 6"
WITH 3500 PSI MINIMUM MIX CONCRETE.
USE 4000 PSI MINIMUM MIX CONCRETE
IN PARKING LOT. USE SAME SIZE REBAR





1 PLUMBING PLAN – WASTE
SCALE: 1/4" = 1'–0"WORK ON 2ND FLOOR–ROOF ABOVE

NOTES:
1. REFERENCE SPECIFICATIONS, SHEET MEP – 2 .
2. COORDINATE CONNECTIONS WITH EXISTING WASTE LINE. MAIN FLOOR IS LEAVE OUT.
3. INSULATE CONDENSATE LINES WITH MINIMUM R–4 INSULATION .
4. PROVIDE RPZ BACK FLOW PREVENTORS FOR ALL HARD PIPED APPLIANCES AND EQUIPMENT PER CODE .
5. INSULATE ALL WATER LINES PER LATEST APPROVED EDITION OF PLUMBING CODE .
6. HEAT TRACE INSULATED HOT WATER PIPING PER CODE.
7. ALTERNATE TO ROUND FLOOR DRAIN – SQUARE FLOOR DRAIN .
8. REFERENCE EQUIPMENT SCHEDULE ON SHEET E–1 .
9. REFERENCE MEP–2 FOR WASTE PIPING AND WATER PIPING SPECIFICATIONS, INCLUDING CAST IRON AND SCHED 40 PVC. WATER PIPING –TYPE L OR XLINK POLY (PEX) OF ANY COMBINATION MEETING ASTM 876 / 877 CSA B137.10 STANDARDS PER CODE.
10. ROUTE RTU INSULATED CONDENSATE TO MOP SINK WITH AIR GAP.
11. PLUMBING WORK FOR THIS PROJECT INCLUDES SOME GAS PIPING AND NEW FIXTURES.
12. FIELD VERIFY BEST TIE IN POINT FOR RR WASTE LINE. DO NOT CUT FRONT GRADE BEAM.
13. PROVIDE FLOOR DRAIN LOCATIONS AS SHOWN AND PER 2021 IPC.
14. PROVIDE SEDIMENT TRAP INCLUDING BUCKET TYPE FLOOR DRAINS

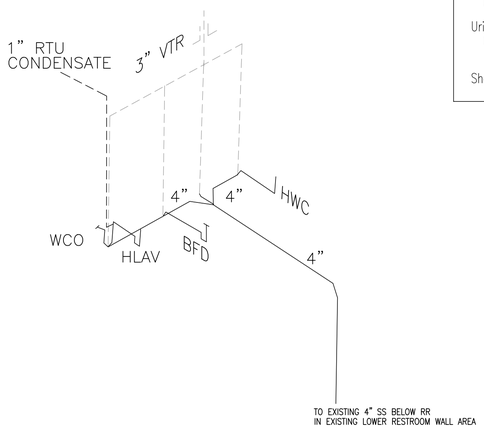
EQUIPMENT SCHEDULE

NO.	ITEM NAME	QTY:	MANUFACTURER	MODEL	DIMENSIONS WIDTH	DEPTH	HEIGHT	WEIGHT	COLD WATER	HOT WATER	DRAIN	GAS SUPPLY	MECHANICAL SUPPLY	EXHAUST	DUCT SIZE	H.P.	ELECTRIC SERVICE VOLT.	PHASE	AMP.	NEMA CONFIG.	REMARKS
01	CABINET, P.O.S.	1	GLASTENDER	PCB-24	24"	24"	37"														
02	COFFEE BREWER	1	CURTIS	G4TP1563B3100	11.13"	20.75"	24.75"		X	X		-	-	-	-	-	120/220	1	13.8/12.2	-	
03	COFFEE GRINDER	1	MAHLKONIG	EK43 S																	
04	COOLER, UNDER COUNTER	1	GLASTENDER	C1FB72	72"	24 1/8"	36"		-	-	-	-	-	-	-		120	1	15	5-15P	
05	DRAIN BOARD, W/ GLASS RACK	1	GLASTENDER	DBGR-18	18"	24"	37"														
06	DUMP SINK, W/ DRAIN BOARD	1	GLASTENDER	SWB-18-DB	18"	24"	37"														
07	GLASS WASHER	1	GLASTENDER	GC04HT	24 1/4"	26 7/8"	36 1/4"	281 lb		X	5/8"	-	-	-	-	3/4	60	1			
08	HAND SINK, W/ PAPER TOWEL DISPENSER	1	GLASTENDER	HSB-12-AD	12"	24"	37"														
09	HOT WATER DISPENSER	1	CURTIS	G3 WBSNB	7.5"	24.38"	25.75"		X	X		-	-	-	-		120/220	1	12.5/22.7		
10	ICE BIN, W/ SPEED RAIL	1	GLASTENDER	IBA-24	24"	24"	37"														
11	LIQUOR DISPLAY, W/ SPEED RAIL	1	GLASTENDER	LDB-18S	18"	24"	37"														
12	SODA GUN	1	GLASTENDER	SHB-6	6"	24"	21"														

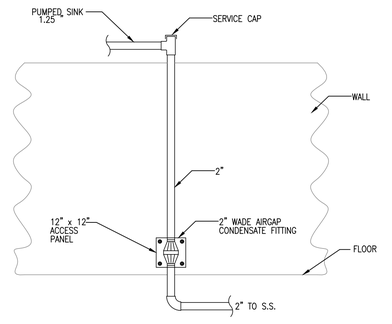
FIXTURE ROUGH–IN SCHEDULE

Rough–in fixture piping connections in accordance with following table of minimum sizes for particular fixtures.

	Hot Water	Cold Water	Waste	Vent
Lavatory	1/2 inch	1/2 inch	1–1/2 inch	1–1/4 inch
Service Sink	1/2 inch	1/2 inch	2 inch	1–1/2 inch
Sink	1/2 inch	1/2 inch	1–1/2 inch	1–1/4 inch
Drinking Fountain or EWC	---	1/2 inch	1–1/4 inch	1–1/4 inch
Water Closet (Flush Valve)	---	1 inch	4 inch	2 inch
Water Closet (Tank Type)	---	1/2 inch	4 inch	2 inch
Urinal (Flush Valve)	---	3/4 inch	2 inch	1–1/2 inch
Urinal (Tank Type)	---	1/2 inch	2 inch	1–1/2 inch
Showers	1/2 inch	1/2 inch	Floor Drain 2"	See Plans



2 REST ROOM RISER
SCALE: N.T.S.



3 HUB DRAIN FITTING DETAIL
SCALE: N.T.S.

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WILLIAM PECK & BECK, INC. DBA
105 W. MAIN ST.
LEWISVILLE, TEXAS 75057
WWW.PECKBECKARCH.COM
972.221.1424

REVISIONS

PLUMBING WASTE

ISSUE DATE:

Scale:

Drawn: MW

Job: 24-220-001

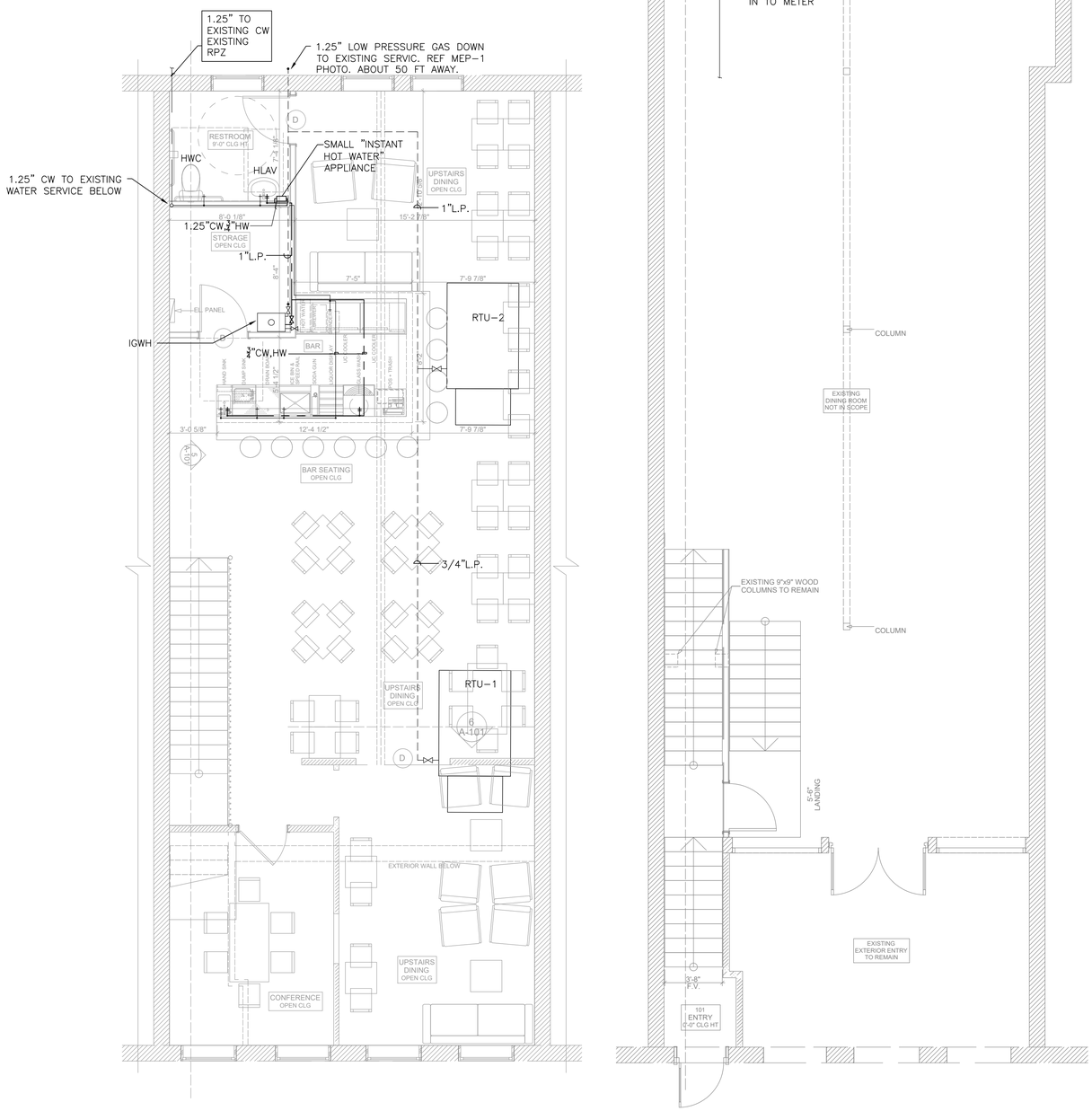
Sheet Number: P–1



07.19.2024

PERMIT, PRICING & CONSTRUCTION SET

Hawkes & Associates, Inc.
Consulting Engineers REG # F–1230
611 S. Lake Dallas Drive – Lake Dallas, TX 75065
PHONE (940)–497–4295 FAX (940)–497–4296 E–MAIL hawkesasc@gmail.com
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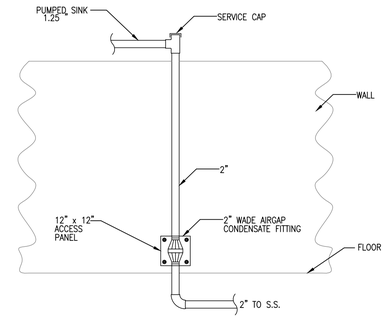
1 PLUMBING PLAN – WATER AND GAS
SCALE: 1/4" = 1'-0"

NOTES:
1. REFERENCE SPECIFICATIONS, SHEET MEP – 2 .
2. COORDINATE CONNECTIONS WITH EXISTING WASTE LINE. MAIN FLOOR IS BELOW EXISTING.
3. INSULATE CONDENSATE LINES WITH MINIMUM R–4 INSULATION .
4. PROVIDE RPZ BACK FLOW PREVENTORS FOR ALL HARD PIPED APPLIANCES AND EQUIPMENT PER CODE .
5. INSULATE ALL WATER LINES PER LATEST APPROVED EDITION OF PLUMBING CODE .
6. HEAT TRACE INSULATED HOT WATER PIPING PER CODE.
7. ALTERNATE TO ROUND FLOOR DRAIN – SQUARE FLOOR DRAIN .
8. REFERENCE EQUIPMENT SCHEDULE ON SHEET E–1 .
9. REFERENCE MEP–2 FOR WASTE PIPING AND WATER PIPING SPECIFICATIONS, INCLUDING CAST IRON AND SCHED 40 PVC. WATER PIPING –TYPE L OR XLINK POLY (PEX) OF ANY COMBINATION MEETING ASTM 876 / 877 CSA B137.10 STANDARDS PER CODE.
10. ROUTE RTU INSULATED CONDENSATE TO MOP SINK WITH AIR GAP.
11. PLUMBING WORK FOR THIS PROJECT INCLUDES SOME GAS PIPING AND NEW FIXTURES.
12. FIELD VERIFY BEST TIE IN POINT FOR RR WASTE LINE.
13. PROVIDE FLOOR DRAIN LOCATIONS AS SHOWN AND PER 2021 IPC.
14. PROVIDE SEDIMENT TRAP INCLUDING BUCKET TYPE FLOOR DRAINS

FIXTURE ROUGH–IN SCHEDULE

Rough–in fixture piping connections in accordance with following table of minimum sizes for particular fixtures.

	Hot Water	Cold Water	Waste	Vent
Lavatory	1/2 inch	1/2 inch	1–1/2 inch	1–1/4 inch
Service Sink	1/2 inch	1/2 inch	2 inch	1–1/2 inch
Sink	1/2 inch	1/2 inch	1–1/2 inch	1–1/4 inch
Drinking Fountain or EWC	---	1/2 inch	1–1/4 inch	1–1/4 inch
Water Closet (Flush Valve)	---	1 inch	4 inch	2 inch
Water Closet (Tank Type)	---	1/2 inch	4 inch	2 inch
Urinal (Flush Valve)	---	3/4 inch	2 inch	1–1/2 inch
Urinal (Tank Type)	---	1/2 inch	2 inch	1–1/2 inch
Showers	1/2 inch	1/2 inch	Floor Drain 2"	See Plans



2 HUB DRAIN FITTING DETAIL
SCALE: N.T.S.

These plans are intended to provide the basic construction information necessary to substantially complete this structure. These construction documents must be verified and supplemented by the Builder/Contractor to meet the requirements of the owner. Any errors and/or omissions, if any, are to be brought to the attention of the Designer prior to any construction or purchases being made. It is recommended that the owner or builder obtain the services of a licensed professional engineer to supplement these plans as required by law of any kind. NOTE: All Federal, state, and Local codes, ordinances, and restrictions take precedence over any part of these construction documents which may conflict with same, and must be complied with and followed. Contractor shall verify all conditions.
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WEST OAK COFFEE SHOP

116 W. OAK STREET
DENTON, TX

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REVISIONS

PLUMBING WASTE

ISSUE DATE:

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Drawn: JB

Job: 19-057-001

Sheet Number: P–2

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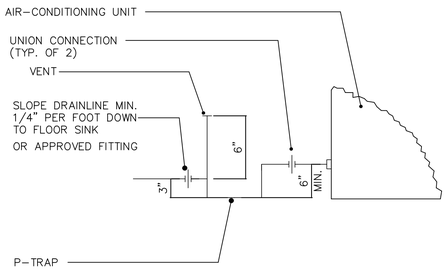
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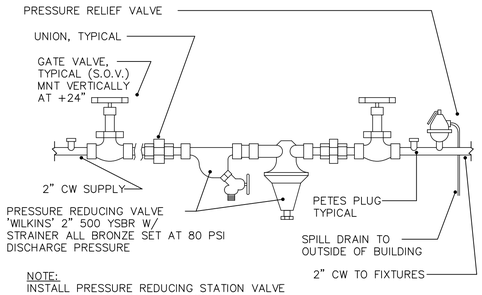
02.12.2025

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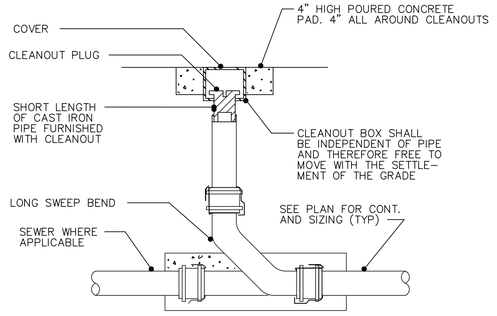
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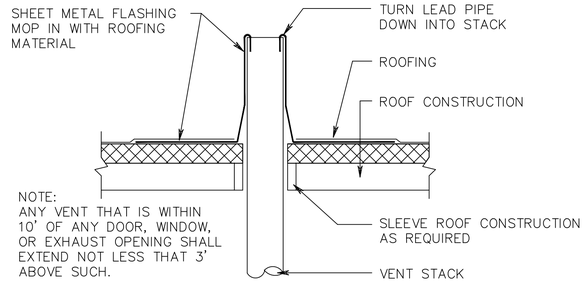
1 AC UNIT CONDENSATE DETAIL
SCALE: N.T.S.



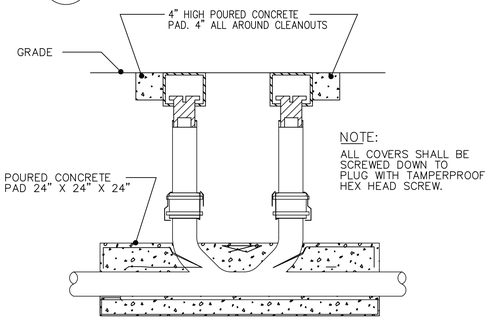
2 PRESSURE REDUCING VALVE
SCALE: N.T.S.



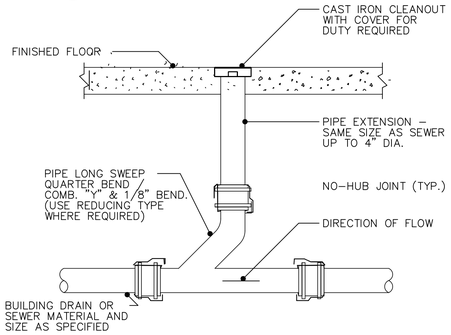
3 1-WAY CLEANOUT TO GRADE
SCALE: N.T.S.



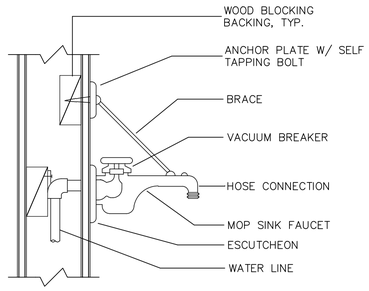
4 VENT THRU ROOF DETAIL NTS
COORDINATE LOCATION OF ALL ROOF PENETRATIONS WITH ARCHITECT



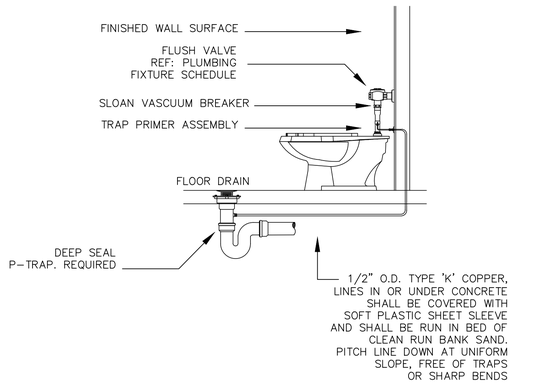
5 2-WAY CLEANOUT TO GRADE
SCALE: N.T.S.



6 INTERIOR FLOOR CLEANOUT
SCALE: N.T.S.



7 BLOCKING DETAIL
SCALE: N.T.S.



8 P-TRAP AMD TOILET DETAIL
SCALE: N.T.S.

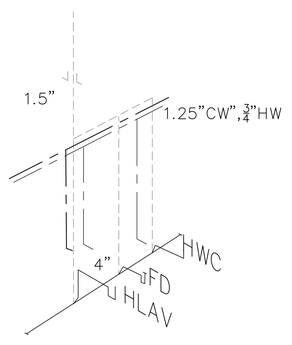
PLUMBING FIXTURE SCHEDULE

PLUMBER WORK SCOPE INCLUDED KITCHEN EQUIPMENT INSTALLATION
SEE ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS

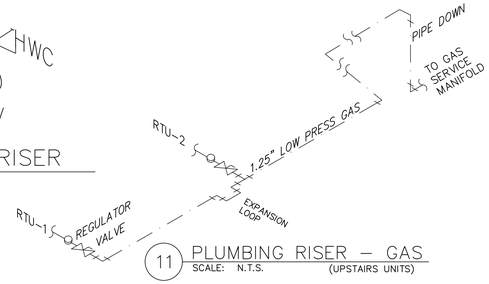
FIXTURE MARK	MANUFACTURER SERIES NUMBER	WATER CLOSET AND URINAL					ACCESSORIES AND FEATURES
		BOWL TYPE	OUTLET	FLUSH VALVE	SEAT	CARRIER	
WC	AMERICAN STANDARD CADET	WALL MOUNTED ELONGATED SIPHON-JET	BACK	SLOAN 111	BENEKE 523	WADE	FLUSH VALVE TOILET – FLOOR MOUJNTED
HWC	AMERICAN STANDARD ADA CADET	WALL MOUNTED ELONGATED SIPHON-JET	BACK	SLOAN 111	BENEKE 523	WADE	INSTALL PER A.D.A. REQUIREMENTS. FLUSH VALVE HEIGHT SHALL BE DECREASED AS REQUIRED TO AVOID HAND RAIL CONFLICT TO WIDE SIDE OF STALL
UR	AMERICAN STANDARD 6541.132	WALL-HUNG WASH OUT	BACK	SLOAN 186-1		JOSAM 17810	STD. URINAL
HUR	AM STD ALLBROOK 6540						INSTALL PER A.D.A. REQUIREMENTS. AND Texas Accessabilities Standard
FIXTURE MARK	MANUFACTURER SERIES NUMBER	LAVATORY/SINK					ACCESSORIES AND FEATURES
		BOWL TYPE	FAUCET	SUPPLY PIPE	TRAP		
LAV HLAV	AMERICAN STANDARD LUCERNE OR EQUAL	CHINA	INCLUDED	INCLUDED	INCLUDED	WADE	EQUIPPED AND INSTALLED FOR HANDICAPPED USE. FAUCET WITH LEVER TYPE HANDLE AND 0.5 GPM AERATOR, w/ PIPE INSULATION/PROTECTION
LAV	AMERICAN STANDARD LUNCERNE OR EQUAL	CHINA	INCLUDED	INCLUDED	INCLUDED	WADE	EQUIPPED AND INSTALLED FOR HANDICAPPED USE. FAUCET WITH LEVER TYPE HANDLE AND 0.5 GPM AERATOR.
MS	FIAT OR EQUAL MS2424	CAST RESIN	AMER. STD. 8340.242	INCLUDED	7798.176 W/STRAINER		FAUCET WITH 16" HIGH SIDE AND BACK SPLASH WITH LEVER TYPE HANDLE BACKFLOW/VACUUM BREAKER/HOSE CONNECTION
FIXTURE MARK	MANUFACTURER SERIES NUMBER	FLOOR DRAIN/STRAINER					ACCESSORIES AND FEATURES
		MATERIAL	TYPE	SIZE	FREE AREA	MATERIAL	
FD	JOSAM 30003-6A-50	CAST IRON	6A	6"ø	11 SQ. IN.	BUFF POLISHED BRONZE	TWO PIECE BODY, DOUBLE DRAINAGE FLANGE, WEEP HOLES WITH P-TRAP.
FIXTURE MARK	MANUFACTURER SERIES NUMBER	WATER HEATER					ACCESSORIES AND FEATURES
		GAL. CAPACITY	TYPE	# ELEMENTS	WATTS	VOLTS/ø	
IGWH-1	RINAII, NAVIAN ,RHEEM 199K	INSTANT	GAS			120V CTRL	T & P VALVE, 4" PAN, OV FLO PIPED TO OUTSIDE PIPED TO OUTSIDE
FIXTURE MARK	MANUFACTURER SERIES NUMBER	ELECT. WATER COOLER					ACCESSORIES AND FEATURES
		CAPACITY	VOLTS	HP	FINISH		
EWC HEWC ALTERNATE	OASIS PLF8WMQSL (SURFACE)	7.8 GPH	115	1/5	STANDARD		WALL MOUNTED BI-LEVEL ELECTRIC WATER COOLER. INSTALL PER A.D.A./ T.A.S. REQUIREMENTS. REFERENCE ARCHITECTURAL DETAILS AND PLANS
	ELKAY (TWINNED UNIT) LKTE-8 (FLUSH)	8 GPH	115	1/5	STAINLESS		
FIXTURE MARK	MANUFACTURER SERIES NUMBER	ROOF DRAINS					ACCESSORIES AND FEATURES
		BODY MATERIAL	SIZE	WEIGHT	DOME MATERIAL	DOME FREE AREA	
NOTE USED							

NOTES:

1. ALL FIXTURES SHALL BE ACCESSIBLE TO INDIVIDUALS WITH DISABILITIES IN ACCORDANCE WITH THE "AMERICANS WITH DISABILITIES ACT OF 1990". FIXTURES AND THEIR INSTALLATION SHALL ALSO COMPLY WITH AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) PUBLICATION A117.1 – "PROVIDING ACCESSIBILITY AND USABILITY FOR PHYSICALLY HANDICAPPED PEOPLE" AND/OR GOVERNING CODE. REF DIV 15 SPECS FOR ADDITIONAL REQUIREMENTS. COMPLY WITH TEXAS ACCESSABILITY STANDARDS.
2. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM, AND FITTINGS SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, WATER AND ENERGY CONSERVATION CODES. THE SCHEDULED AND/OR SPECIFIED PLUMBING FIXTURES AND EQUIPMENT REPRESENT THE MINIMUM CRITERIA AND SHALL BE THE BASIS FOR THE CONTRACTOR'S BASE BID. IF THE SCHEDULED OR SPECIFIED FIXTURES OR EQUIPMENT DO NOT COMPLY WITH GOVERNING CODES OR REGULATIONS IN ALL RESPECTS, THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR COMPLYING FIXTURES, EQUIPMENT, TRIM, OR FITTINGS. THE ABSENCE OF AN ALTERNATE BID SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTOR'S BID INCLUDES ALL COSTS NECESSARY TO MEET ALL REGULATIONS AND CODES.



10 TYPICAL RESTROOM RISER
SCALE: N.T.S.



11 PLUMBING RISER – GAS
SCALE: N.T.S. (UPSTAIRS UNITS)

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These plans are intended to provide the basic construction information necessary to substantially complete this structure. These construction documents must be verified and supplemented by the contractor prior to construction. Any discrepancies, errors, and/or omissions, if any, are to be brought to the attention of the Designer prior to any construction or purchases being made. It is recommended that the owner or builder obtain the services of a licensed professional to supervise the construction of this structure. Codes of any kind: NOTE: All Federal, state, and Local codes, ordinances, and restrictions take precedence over any part of these construction documents which may conflict with same, and must be complied with in every detail.
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DETAILS

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J25C013

STATE OF TEXAS BRYANT HAWKES 49717 REGISTERED PROFESSIONAL ENGINEER

02.12.2025

114 W. Oak
West Oak Coffee Bar
Downtown Reinvestment Grant







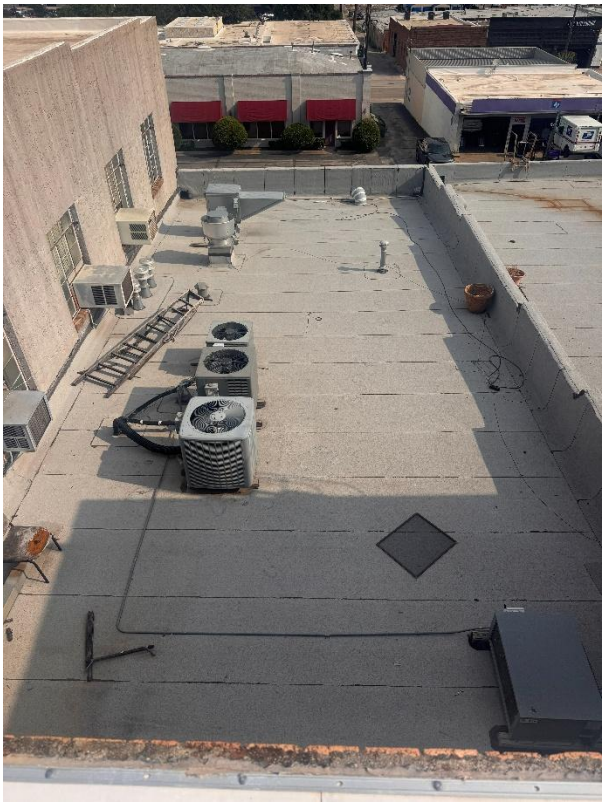
114 W. Oak
West Oak Coffee Bar
Downtown Reinvestment Grant



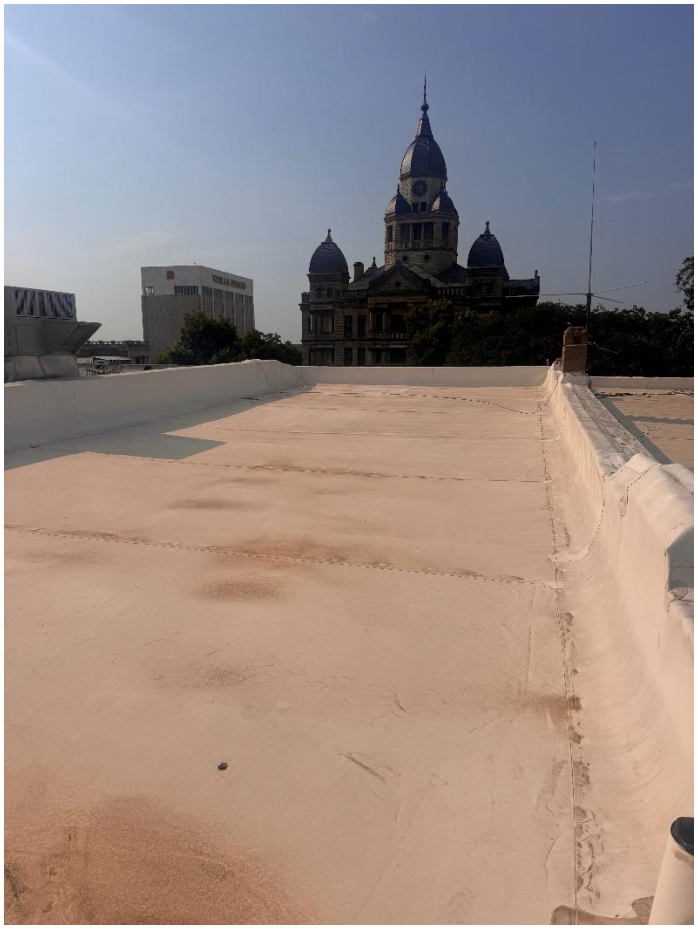


114 W. Oak
West Oak Coffee Bar
Downtown Reinvestment Grant





114 W. Oak
West Oak Coffee Bar
Downtown Reinvestment Grant



January 28, 2026

West Oak Coffee Bar

114 W. Oak

Kristen Pulido
Main Street Program Manager
Office of Economic Development

FY 25/26 Downtown Reinvestment Grant Budget Status

FY 25/26 Downtown Reinvestment Grant Pipeline Stage		
Status	**Total**	**Est. Amount Awarded**
Application Review	4	$160,000
Awaiting Application	12	$472,500
Leads	4	$225,000
TOTAL		**$857,500**

Projected 25/26 Tax Increment Reinvestment Zone Number One Grants		
Owner/Business	**Address**	**Requested Amount**
Fine Arts Theater of Denton, LLC	115-116 N. Elm St.	$50,000
West Oak Coffee Bar	114 W. Oak St.	$50,000
West Oak Coffee Bar	114 W. Oak St.	$50,000
	TOTAL	**$150,000**
	FY 25/26 Grant Budget	***$200,000***
	Est. Fund Balance	***$50,000***

ALIGNMENT WITH CITY PLANS

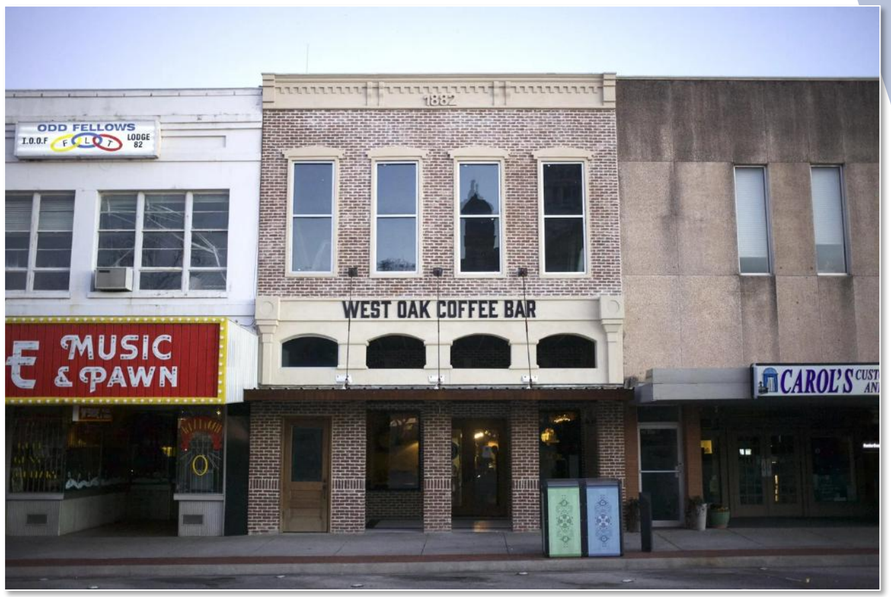
- **City's Strategic Plan**
  - Key Focus Area 3: Foster Economic Opportunity and Affordability
    - Grow Denton's Economic Vitality
  - Key Focus Area 4: Strengthen Community and Quality of Life
    - Preserve Community Character and Identity
    - Strengthen Community Amenities

- **Economic Development Strategic Plan**
  - 2D.2 Downtown Development

- **Design Downtown Plan**
  - Community Priority: Retail and Commercial Development

BACKGROUND

- 2014 – West Oak Coffee Bar opens in Downtown Denton
  - Offering an inviting space where Dentonites can gather and enjoy high-quality coffee.
  - Coffee distributer to several local coffee shops and organizations
    - Eagle Cawffee
    - Marty B's Coffee
    - University of North Texas
- 114 W. Oak – Part of the Historic Denton Square District
  - Received their Certificate of Design Consistency from Cameron Robertson, Historic Preservation Officer

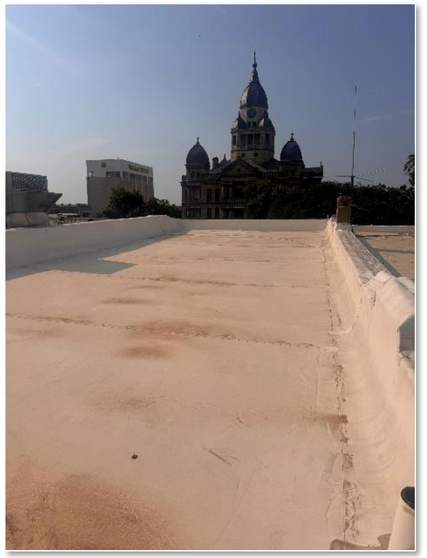


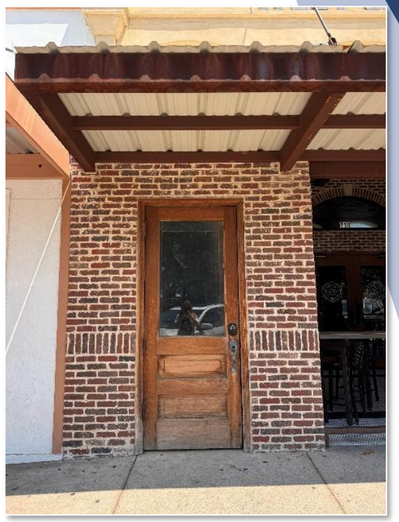
PROJECT

- 2nd floor expansion
  - Adding an estimated 70+ additional seats for guests
  - An estimated additional million dollars in revenue is expected with the expansion to the upper floor

FAÇADE/ BUILDING REHABILITATION

- Exterior Doors/Windows
- Flat Roofing
- Painting
- **Projected Cost: $10,200**





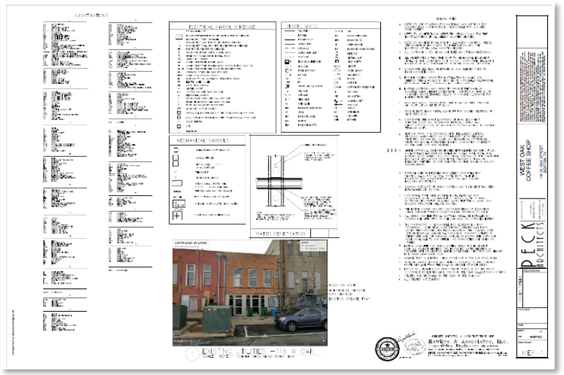


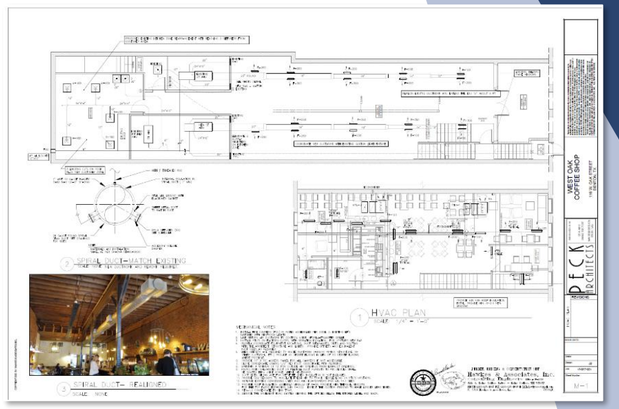
IMPACT FEES

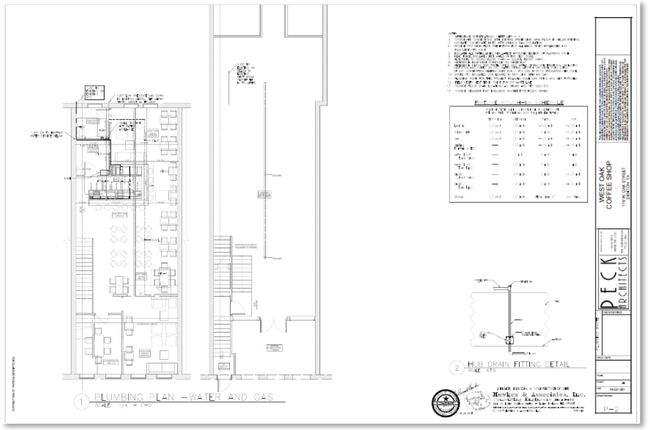
- **Projected Cost: $18,300**

UTILITY UPGRADES

- HVAC
- Electrical
- Plumbing
- **Projected Cost: $158,130**







INTERIOR/ CODE IMPROVEMENTS

- Flooring
- Drywall/Plaster
- Framing (Interior Walls)
- **Projected Cost: $175,502**





ELIGIBLE EXPENSES

Projected Project Cost: $362,132

West Oak Coffee Bar - Grant Application		
Project Category	**Estimated Cost**	**Grant Limit**
Façade/Building Rehabilitation	$10,200	50% up to $50,000
Impact Fees	$18,300	50% up to $50,000
Utility Upgrades	$158,130	50% up to $50,000
Interior Code Improvements	$175,502	50% up to $50,000
Total Project Cost	**$362,132**	**$181,066**
Total Grant Request:	***$50,000***	

SCORING

Downtown Reinvestment Scoring - West Oak Coffee Bar

Economic Impact: 0-5 Points	Historic Accuracy/Design: 0-5 Points	Upgrades to Utilities/Impact Fees: 0-5 Points	Increases Population: 0-5 Points	Interior/Code Improvements: 0-5 Points	Other 0-15 Points • Partners with other businesses • Project is a "target" business • Promotes development of Denton Arts and Entertainment • Longevity of Business	SUM
4	5	5	4	5	10	33
5	5	5	5	5	10	35
5	5	5	5	5	9	34
5	5	5	5	5	10	35
5	4	5	5	4	8	31
5	4	5	4	4	9	31
5	5	5	5	5	10	35
4.857	**4.714**	**5**	**4.714**	**4.714**	**9.428**	**33.428**

Review Process – Total project scores can range from 0-40

Recommendations will be based on:

0-9 points = No Funding

10-14 points = Grant recommendation of up to $7,500

15-19 points - Grant recommendation of up to $15,000

20-24 points = Grant recommendation of up to $25,000

25-29 points = Grant recommendation of up to $35,000

30-40 points = Grant recommendation of up to $50,000

PRIOR ACTION

On December 4, 2025, the Downtown Economic Development Committee (DEDC) reviewed and scored the grant application. The application received an average score of 33.4 points, making it eligible for a recommendation of up to $50,000. These scores support the recommendation to approve the application requested. The Downtown Economic Development Committee recommends approval of up to $50,000 (7-0).

NEXT STEPS:

- Recommend approval of grant amount by the DEDC to City Council.
- Recommend a lesser amount then recommended by the DEDC to City Council.
- Do not recommend approval of grant application.

Questions?

Matt Fisher & Mattea Edmonson
West Oak Coffee Bar

City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: **Economic Development**

ACM: **Christine Taylor**

DATE: **January 28, 2026**

SUBJECT

Receive a report, hold a discussion, and make a recommendation to City Council regarding a Downtown Reinvestment Grant Program Fire Suppression application for 114 W. Oak Street, West Oak Coffee Bar. The Downtown Economic Development Committee recommends approval (7-0).

BACKGROUND

Matt Fisher and Clay Rozell opened West Oak Coffee in Downtown Denton in 2014 with the vision of creating a warm, inviting space where Dentonites could gather and enjoy high-quality coffee. Although Clay Rozell is no longer an owner or partner in West Oak Coffee Bar, the original vision helped lay the foundation for what would become the Voltage Coffee Project, an organization that connects coffee lovers both locally and globally. Voltage Coffee Project also serves as a distributor for several local coffee shops and organizations, including Eagle Cawffee, Marty B's Coffee, and the University of North Texas, among others.

The building at 114 W. Oak is part of the Historic Denton Square District. The buildings along W. Oak Street, along the northern edge of the district, are all two-story commercial buildings dating primarily from the late nineteenth and early twentieth centuries. While the district witnessed significant development during the 1880's, a series of fires in the late nineteenth century destroyed many original buildings. Notably, the north side of the square was the least affected, with fires damaging the west side in 1881 and the east side in 1887.

Project

After more than a decade of successful operation, the West Oak team is planning to expand their business to the building's second floor, which has remained vacant for over fifty years. This improvement will support the increase in property value for the Tax Increment Reinvestment Zone Number One and provides improvements to health and safety.

Projected Improvements include: Fire Suppression System
Project Submitted Expenses: $171,751.16
Grant Request: $50,000.00
Applicable Policy Limits:

- *Fire Suppression Systems:* Installation of a new fire suppression system or necessary updates to an existing fire suppression system in accordance with the International Fire Code (IFC) and International Building Code Chapter 9, currently followed by the City of Denton. Grant limits: Fire Suppression System grants are limited to a 50% match with a cap of $50,000 per grant.

PRIOR ACTION/REVIEW

The building at 114 W. Oak St. previously received a $25,000 Downtown Reinvestment Grant in 2014, which at the time was funded through mixed beverage tax revenue. In 2018, the funding source for this grant program was changed to the Tax Increment Reinvestment Zone Number One.

On December 4, 2025, the Downtown Economic Development Committee (DEDC) reviewed the West Oak Coffee Bar application for Fire Suppression. Fire Suppression system applications automatically receive the maximum score of 40 points which equals a grant recommendation of up to $50,000.

EXHIBITS

Exhibit 1 – Agenda Information Sheet
Exhibit 2 – Grant Application
Exhibit 3 – Presentation

Respectfully submitted:
Kristen Pulido
Main Street Program Manager
Office of Economic Development

From: Smartsheet Automation
To: Pulido, Kristen
Subject: West Oak Coffee Bar has completed the Downtown Reinvestment Grant form
Date: Tuesday, October 14, 2025 10:00:45 AM

This message has originated from an **External Source**. Please be cautious regarding links and attachments.

<!--[if !mso]--> <!--[endif]-->

West Oak Coffee Bar has completed the Downtown Reinvestment Grant form

West Oak Coffee Bar has completed the Downtown Reinvestment Grant form:

• Address: 114 West Oak Street

• Type of work: Fire Suppression System

• Planned Improvements: The space has been vacant for over the past 50 years so we will be bringing the building completely up to code, restoring as much of the original details as possible and finishing the space in an elegant finish out.

All new:
electric
plumbing
HVAC
decor
lighting

• Total Cost:

• Total Grant Request:

Additional Notes:
• The prospect's submitted total cost is not equal to the sum of individual costs reported in the form.
• The prospect's submitted total grant request is not equal to the sum of individual grants reported in the form.

DRG App Data

Details

Changes since 10/14/25, 9:58 AM

1 row added
3 attachments added

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1 row added or updated (shown in yellow)

Row 4

Business name	West Oak Coffee Bar
Created date	10/14/25, 9:58 AM
Applicant name	Matthew Fisher
Applicant mailing address	114 West Oak Street
Phone number	+1 ([redacted]
Email	[redacted]
Building owner different from applicant?	Yes
Building owner (if different from applicant)	Melinda McBride
Building owner phone	[redacted]
Building owner email	[redacted]
Building name	West Oak Coffee Bar
Project site/address	114 West Oak Street
Type of work	Fire Suppression System
Planned Improvements Details	The space has been vacant for over the past 50 years so we will be bringing the building completely up to code, restoring as much of the original details as possible and finishing the space in an elegant finish out. All new: electric plumbing HVAC decor lighting

Downtown benefit	West Oak has been serving Denton for over the past 10 years. In that time we have grown deep roots in the community. We provide space for all aspects of life to happen, from business meetings, celebrations, dates, job interviews...anything that brings people together and this project will allow us to expand our service to the people of Denton. We also hope invite a large number of guests in as well with the hope they will explore the rest of the Square.
General or fire suppression application	Fire suppression system
Facade/building rehab cost	
Facade/building rehab requested grant	
Awnings cost	
Awnings requested grant	
Signs cost	
Signs requested grant	
Impact fees cost	
Impact fees requested grant	
Utility upgrades cost	
Utility upgrades requested grant	
Interior/code improvements cost	
Interior/code improvements requested grant	
Fire suppression	171751.16

system cost	
Fire suppression system requested grant	50000
Total cost (submission)	
Total cost (Smartsheet)	171751.16
Total grant request (submission)	
Total grant request (Smartsheet)	50000
Message Details	• The prospect's submitted total cost is not equal to the sum of individual costs reported in the form. • The prospect's submitted total grant request is not equal to the sum of individual grants reported in the form.

Changes made by web-form@smartsheet.com

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3 attachments added

114 W Oak St, Denton, TX 76201 Fire Line Proposal (1).pdf (99k) added by web-form@smartsheet.com on Row 4: West Oak Coffee Bar

West Oak Coffee-Denton-Fire Sprinkler (1) (1).pdf (179k) added by web-form@smartsheet.com on Row 4: West Oak Coffee Bar

West Oak Coffee-Denton-Fire Alarm (1) (1).pdf (206k) added by web-form@smartsheet.com on Row 4: West Oak Coffee Bar

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You are receiving this email because you are subscribed to a workflow "New application notification" (ID# 6133402949707652) on sheet DRG App Data
Exclude your changes from all notifications | Unsubscribe
Powered by Smartsheet Inc. | Privacy Policy | Report Abuse/Spam

DOWNTOWN REINVESTMENT GRANT AGREEMENT FORM

Please complete and return with the Downtown Reinvestment Grant Application to the Economic Development office, 401 N. Elm St., Denton, Texas. If you have any questions, please contact the Economic Development Department at 940- 349-7776.

I have met with a representative from the Economic Development Department, and I have read and fully understand the Downtown Reinvestment Grant procedures established by the Denton City Council. I intend to use this grant program for the aforementioned renovation projects to advance the efforts of revitalization and historic preservation of Denton's historic downtown. *I have not received, nor will I receive insurance monies for this revitalization project.*

I understand that if I am awarded a Downtown Reinvestment Grant by the City of Denton, any deviation from the approved project may result in the partial or total withdrawal of the grant. (If I am awarded a reinvestment grant for facade, awning or sign work and the facade, sign or awning is altered for any reason within **one (1) year** from construction, I may be required to reimburse the City of Denton immediately for the full amount of the grant.)

West Oak Coffee Bar

Business/Organization Name

Matthew Fisher 9/4/25

Applicant's Signature *Printed Name* *Date*

Melinda McBride 9/5/25

Building Owner's Signature (if different from applicant) *Printed Name* *Date*

This section is to be completed by Economic Development staff.

Date considered by DEDC *Recommendation* *Staff Signature*

Date considered by TIRZ #1 Board *Recommendation* *Staff Signature*

Date considered by City Council *Approval* *Staff Signature*

From **DFS Fire Systems**

3121 Benton Street
Garland TX 75042
(214) 628-4061
https://dfs-fs.com/
Texas ACR-3359662
Texas ECR-3359665
Texas SCR-G-3356970

Quote No.	**0008862**
Type	Installation
Prepared By	Floyd Davis
Created On	09/29/2025
Valid Until	10/31/2025

Quote For **Estimating**

West Oak Coffee
114 West Oak Street
Denton TX 76201

Description of Work

DFS Fire Systems Fire Sprinkler Installation Quote

DFS Fire Systems is pleased to present this proposal for the installation of the applicable fire sprinkler system in accordance with NFPA 13 codes and standards. Our team has reviewed the preliminary documentation provided on 9/26/2025, where no digital plans were provided. Specific assumptions and exclusions are outlined below for your review.

Should any adjustments be required, please don't hesitate to reach out. We value the opportunity to collaborate and look forward to supporting your project with precision and reliability.

TERMS OF PAYMENT: 50% down payment is due upon signing this contract and the remaining balance is due after hydro/visual inspection performed by the local AHJ. DFS accepts all forms of payment, credit card payments will be subject to a **3.50% processing fee**.

Services to be completed

Sprinkler

1.Provide required AutoCAD drawings, hydraulic calculations, permits and coordination for a wet pipe system as required by the local AHJ.
2.Provide on-site required hydrostatic testing of the fire protections system as required by the local AHJ.
3.Meet hydraulic density as required by NFPA 13.
4.Sprinkler head spacing as required by NFPA 13.

Scope:
- Add a new WET fire sprinkler system starting at the fire line 1' above finished floor to include a new above ground backflow assembly (if required) in a temperature-controlled room, wall mounted FDC or route to remote FDC connection within the riser room. All heads to be either upright pendant, sidewall, dry or white semi-recessed.

- If attic area coverage is required by the AHJ, then add $23,360

Project specific exclusions:
- CAD/DWG files and a full set of construction drawings are required for sprinkler design scope. If they are not available, then a quote to generate them can be provided.
- Insulation of any kind
- Interstitial sprinkler head coverage

GRAND TOTAL **$66,100.00**

Terms and Conditions

TERMS AND CONDITIONS OF SALE

1. GENERAL. The following Terms and Conditions of Sale (“Terms and Conditions”) shall govern all sales of materials or services (“Materials” or “Services”) provided by Better Protection, LLC (“BP”) and all owned subsidies to any buyer or end-user (the “Customer”).

a. Standard Exclusions:

- **Fire Sprinkler**

1. Attic coverage
2. Raising, lowering or rerouting of any sprinkler branch lines or sprinkler main lines.
3. Custom colored escutcheons
4. Phased work, unless otherwise specified.
5. Electrical wiring, fire alarm wiring, and/or monitoring services are not part of our service unless specified otherwise in the description of services herein.
6. Adequate heat, heat tracing, and/or insulation of pipe.
7. Fire extinguisher cabinets, hangars, monitoring and related services are excluded.
8. Fire pump work of any kind and/or water storage tank unless explicitly included above.
9. Cleaning, priming, prepping, or painting of any piping is not included.
10. Water pressure below 55 psi may incur additional costs.
11. Underground work or any taps/connections to city water mains.
12. Underground piping is excluded from our service.
13. Site underground fire line piping or its flushing is not included unless explicitly mentioned. Compliance with NFPA 24 is required, and certification must be provided before connecting the automatic fire sprinkler protection system to the underground supply.
14. Backflow preventers, fittings, valves, devices, taps, bores, vaults, and freestanding fire department connections are not covered.
15. Protection of fire sprinkler components from damage or painting is excluded.
16. Protective covers can be provided at an additional cost if not explicitly included.
17. Permits, design, and/or expediting fees unless explicitly included above.
18. Design from PDF drawing files. DFS requires .dwg or other CAD-compatible file types for design services. If CAD-compatible files are unavailable, DFS can provide services to create at additional cost.
19. Prevailing wages, overtime or premium labor time unless explicitly included above. **If required, this can be added at additional cost.**
20. Cutting/patching/painting/replacement of ceiling tiles, ceiling structure, sheetrock, or finishes.
21. Detailed housekeeping. DFS will leave area broom clean.
22. Protection of finished flooring, walls, or adjacent architectural items.
23. Unforeseen conditions.
24. Emergency Responder Radio System.
25. Coordinated drawings.
26. BIM design or BIM Coordination.
27. Liquidated and/or consequential damages.
28. Modifications or additions to our current insurance.
29. Sales tax, unless otherwise specified.
30. Fire caulking and/or fire stopping.
31. All coring and/or sleeving.
32. Splash blocks
33. MIC testing
34. Knox Box or FDC Knox Caps
35. Entire compartment upgrade requested by AHJ
36. **CHANGES MADE BY THE AUTHORITY HAVING JURISDICTION (AHJ).**
37. **All items not explicitly called out above in the Scope of Work are *EXCLUDED* from this proposal**

- **Fire Alarm**

1. Underground conduit is excluded from our service.
2. 110v AC power.
3. Phased work, unless otherwise specified.
4. Electrical wiring and/or monitoring services are not part of our service unless specified otherwise in the description of services herein.
5. Fire extinguisher cabinets, hangars, monitoring and related services are excluded.
6. Cleaning, priming, prepping, or painting is not included.
7. Protection of fire alarm components from damage or painting is excluded. Protective covers can be provided at an additional cost if not explicitly included.
8. Permits and/or design unless explicitly included above.
9. Prevailing wages, overtime or premium labor time unless explicitly included above. **If required, this can be added at additional cost.**
10. Cutting/patching/painting/replacement of ceiling tiles or finishes.
11. Detailed housekeeping. DFS will leave area broom clean.
12. Protection of finished flooring, walls, or adjacent architectural items.
13. Unforeseen conditions.
14. Duct smoke detectors.
15. HVAC shutdown interface and wiring.
16. Telco lines or any other path of transmission, unless otherwise specified.
17. Emergency Responder Radio Coverage System (ERRC), installation and grid testing
18. Emergency Two-Way Communication System (ETWC)
19. Door holder and/or access control devices.
20. Programming of proprietary fire alarm systems.
21. All conduit that is not required by code.
22. Coordinated drawings.
23. BIM.

24. Liquidated and/or consequential damages.
25. Modifications or additions to our current insurance.
26. Sales tax, unless otherwise specified.
27. Fire caulking and/or fire stopping.
28. All coring and/or sleeving.
29. Fire alarm system capability upgrades.
30. **CHANGES MADE BY THE AUTHORITY HAVING JURISDICTION (AHJ).**
31. **All items not explicitly called out above in the Scope of Work are *EXCLUDED* from this proposal**

2. WORKING HOURS. All Services shall be performed during regular business hours, which are 7:00 a.m. to 4:00 p.m. CST Monday through Friday. In the event Customer requests performance at any other time, an additional amount shall be billed and paid by Customer, over and above the agreed upon contract Price, as compensation for overtime wages and for other expenses occasioned thereby.

3. PAYMENT. Any payment schedule outlined in the Proposal prevails over this Payment section. Payment shall be due and payable thirty (30) days from invoice date. Past due accounts are subject to a late fee of one and one-half percent (1½%) per month or the highest rate permitted by law, whichever is lower. Acceptance of payment on any past due amounts shall not be deemed a waiver of any rights BP may have against Customer for late payment. Supplier may demand assurance of Customer's ability to pay whenever it reasonably appears that such ability is in doubt.

4. INSPECTION FEES. All inspection fees charged by the Authority Having Jurisdiction (AHJ) (including permit fees and filing fees) are subject to change at any time. These fees are set by the AHJ and are paid to the AHJ by BP on behalf of the Customer.

5. DEPOSITS. Any required deposits will be listed explicitly on the proposal submitted to the Customer by BP. Such deposits must be paid to BP prior to the commencement of work.

6. WARRANTY.
a. The Materials provided are manufactured by other parties and are warranted by those manufacturers against defects in materials and workmanship for a period of time depending on the Materials. To the extent allowed by contract, law, or otherwise, BP will pass through to Customer any and all warranties that are in effect for Materials purchased. Customer's sole remedy for defective Materials shall be those afforded through the manufacturer's warranty, unless such defect(s) is the results of negligent installation by BP. BP will administer the manufacturer's warranty.
b. Services will be performed with reasonable care and skill ordinarily exercised by others in similar professions, under similar circumstances. If Customer notifies BP within 90 days of discovery of defects in Services, then BP, at its sole election, will either re-perform the Services or return the Price paid for them. In the event BP's investigation or inspection reveals no defect, BP's regular charges for any and all repairs shall apply. This warranty does not cover defects arising from Customer's or Customer's agents' misuse, abuse, neglect, or improper handling.
c. BP will honor any warranties that are stated in the Proposal.
d. BP MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED – INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY OR THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE – UNLESS OTHERWISE SET FORTH IN WRITING AND SIGNED BY AN AUTHORIZED OFFICER OF BP. ANY OTHER WARRANTIES OF ANY NATURE INCONSISTENT WITH THOSE SPECIFIED HEREUNDER, WHETHER MADE BY A SALESPERSON, REPRESENTATIVE, DISTRIBUTOR, DEALER AND/OR EMPLOYEE OF BP i) SHALL NOT CONSTITUTE A WARRANTY; ii) SHALL NOT BE RELIED UPON BY CUSTOMER; AND iii) ARE NOT A PART OF THESE TERMS AND CONDITIONS.

7. DELAYS. Customer shall provide BP access to the worksite premises, facilities, and equipment necessary for BP to timely perform the work. BP shall be free to start and stop all primary equipment incidental to BP's performance of the work, as arranged with Customer's representative. If Customer – including Customer's agents and subcontractors – delays or interrupts progress of the work, all additional on-site time, travel time and materials and expenses shall be borne by the Customer. BP shall bear no liability for any delays or failure to perform caused by Customer or Customer's agents and subcontractors.

8. SAFETY. The Customer shall ensure that the work environment is free from environmental and safety hazards.

9. MODIFICATIONS. On Customer's request for a change in scope, BP will submit a proposal specifying any changes, including the Price and schedule, and shall proceed with the changes upon written agreement by Customer.

10. RENEWAL OF AGREEMENTS. Multi-year inspection/monitoring agreements do not automatically renew. A written extension or new agreement would need to be signed by both parties.

11. BREACH. In the event of Customer's breach or default hereunder, including without limitation Customer's wrongful rejection or refusal to accept delivery or repudiation of its contract to purchase Materials, or Customer's failure to make payment due hereunder, BP shall be entitled to exercise any and all remedies provided by law and under the Uniform Commercial Code, and to recover the Price of any such Materials. All rights and remedies of BP shall be cumulative and may be exercised from time to time, either consecutively or concurrently. BP and Customer agree that any Materials not normally carried in BP's inventory or that cannot be readily resold at a reasonable price, purchased by BP in complete or partial fulfillment of Customer's order, shall be deemed identified to the contract between BP and Customer.

12. INDEMNIFICATION. Customer agrees to defend, indemnify and hold BP and its parents, officers, and affiliates harmless from and against any damage, deficiency, loss, cost, action, claim, judgment or expense, including without limitation, reasonable attorneys' fees, arising from any bodily injury, including death, or in connection with any damages to or loss of property sustained by any person, whether direct, indirect or consequential, arising from or related to any Materials or Services provided by BP, arising out of Customer's gross negligence or willful misconduct, and except for claims or damages resulting from BP's negligence. BP agrees to defend, indemnify and hold Customer and its board members, directors, officers, unit owners, residents, and managing agent harmless from and against any damage, deficiency, loss, cost, action, claim, judgment or expense, including without limitation, reasonable attorneys' fees, arising from any bodily injury, including death, or in connection with any damages to or loss of property sustained by any person, whether direct, indirect or consequential, arising from or related

to any Materials or Services provided by BP and arising out of BP or its agent or employee's gross negligence, willful misconduct, derogation of written instructions by Customer, or breach of this Agreement. BP will add Customer and its managing agent as additional insureds on its commercial general liability insurance policy during the term of this Agreement. The indemnification provisions of this Agreement shall survive expiration or termination of the Agreement.

13. LIABILITY. Nothing contained in these Terms and Conditions shall be construed so as to limit or exclude the liability of BP for death or personal injury as a result of BP's negligence or that of its employees or agents. IN NO EVENT WILL BP BE LIABLE TO THE CUSTOMER OR ANY THIRD PARTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES IN ANY MANNER IN CONNECTION WITH OR ARISING OUT OF BP'S SUPPLY OF GOODS OR SERVICES, REGARDLESS OF THE FORM OF ACTION OR THE BASIS OF THE CLAIM OR WHETHER OR NOT CUSTOMER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

14. RELATIONSHIP OF THE PARTIES. Nothing contained herein shall be construed as establishing or implying any partnership or joint venture between the parties and nothing herein shall be deemed to construe either of the parties as an agent of the other.

15. FORCE MAJEURE. Either party shall bear no liability whatsoever to the other party for any failure to perform or delay caused by fire, earthquake, explosion, flood, hurricane, tornado, war, invasion, insurrection, rebellion or riots, and any such failure or delay due to such cause shall not be deemed a breach of or default in the performance by the party declaring a force majeure event (the "declaring party"). The non-declaring party may cancel the contract without penalty if performance by the declaring party does not resume within thirty (30) days of the declaration.

16. GOVERNING LAW, JURISDICTION. The laws of the State of Illinois shall apply to this contract and its construction. All disputes arising hereunder shall be submitted to the exclusive jurisdiction of the applicable courts of Cook County, Illinois.

17. SEVERABILITY. To the extent any provision or clause in this contract is prohibited by any law or is deemed invalid, unenforceable, or against public policy, such prohibition or unenforceability shall not invalidate any of the remaining provisions or clauses in these Terms and Conditions.

18. WAIVER. Except as specifically waived in writing, failure by a Party to exercise or enforce a right does not waive that Party's right to exercise or enforce that or other rights in the future. No waiver of any breach of any provision of this contract shall constitute a waiver of any other breach of the same or any other provision.

19. ORAL STATEMENTS. Any salespersons, representatives, distributors, dealers and/or employee of supplier may have made oral or written statements about the materials or services described herein, such statements do not constitute warranties, shall not be relied upon by the Customer and are not a part of this contract.

20. SIGNATURE: Person(s) providing signatures for any job documents understands that their signature applies to all job documents associated with the job, including but not limited to, pre work acknowledgements, work acknowledgements, work orders, inspections reports, etc.

By my signature below, I authorize work to begin and agree to pay the Grand Total according to the terms and conditions of this agreement.

Name: _____ Date: _____

Signature: _____

DATE: 9/29/25

3121 Benton St | Garland, TX 75042
Phone Number : 214-717-0942| Fax Number: 469-904-8535

Underground :

DESCRIPTION	AMOUNT

114 W Oak St, Denton, TX 76201

1. Add new underground fire line approx. 45' from the city water line to the building 1' above finished floor. Tap will start in the back of the building off Pecan St. and run up the sidewalk to avoid electrical transformers and into riser room.

2. C900 DR14 Piping, cast iron fitting mega lugs, bolt kits, DR-14 C900 Piping, Thrust blocking, Rebar, Valve, Valve boxes and all other materials to complete the job.

3. Excavation of dirt and replacement, compaction and spoil haul off.

4. Materials: Mega Lugs, Bolt kits, DR-14 C900 Piping

5. 3/8" Rock embedment and cushion sand around piping.

6. Equipment and Mobilization

7. Provide trench safety and trench safety plan.

9. Provide 6" stainless steel ready riser that will be stubbed up 1' above finished floor in new riser room.

10. Includes all labor and materials to complete the job.

11. Provide fire line permit through the fire marshals office only.

$95,879.00

DESCRIPTION	AMOUNT

ESTIMATOR

NAME
Jeremy Davis
PHONE
214-717-0942
EMAIL
Jdavis@standardsiteutilities.com

Bid was created in reference to plans:

EXCLUSIONS:

Meter or Tapping fee's
Rock Excivation
Bonding

Bid was created from the set of plans provided on the date of this proposal. All future addendums or changes are not included in this bid proposal.

Sign Here to Accept Quote:

ABOVE PRICING VALID FOR 30 DAYS

From | **DFS Fire Systems**

3121 Benton Street
Garland TX 75042
(214) 628-4061
https://dfs-fs.com/
Texas ACR-3359662
Texas ECR-3359665
Texas SCR-G-3356970

Quote No.	**0011539**
Type	Installation
Prepared By	Christopher Harrison
Created On	11/25/2025
Valid Until	12/25/2025

Quote For | **Estimating**

West Oak Coffee
114 West Oak Street
Denton TX 76201

Description of Work

DFS Fire Systems Fire Alarm Installation Quote

DFS Fire Systems is pleased to present this proposal for the modification of the existing fire sprinkler system in accordance with NFPA 13 codes and standards. Our team has carefully reviewed the documentation provided, and this proposal is based on the plans dated **10/24/2014**. Specific assumptions and exclusions are outlined below for your review.

Should any adjustments be required, please don't hesitate to reach out. We value the opportunity to collaborate and look forward to supporting your project with precision and reliability.

TERMS OF PAYMENT: 50% down payment is due upon signing this contract, 25% will be due at rough in, and the remaining 25% balance is due after the final inspection performed by the local AHJ. DFS accepts all forms of payment, credit card payments will be subject to a **3.50% processing fee**.

Services to be completed

Fire Alarm
DFS to provide a code minimum required fire alarm system for the facility listed above.

We have included in our proposal the following line item(s):

1 - Fire Alarm System Design

1 - Permitting with AHJ

1 - Honeywell Remote Booster Power Supply, 10A

12 - System Sensor Horn/Strobe, Ceiling Mount, White

4 - System Sensor Strobe, Ceiling Mount, White

PROJECT SPECIFIC EXCLUSIONS:

RTU Monitoring (No Mechanical Plans)

FACP (Assumed Operational and Expandable)

Smoke and Pull Station Coverage

Ansul Monitoring (No Mechanical Plans)

GRAND TOTAL **$9,772.16**

Terms and Conditions

TERMS AND CONDITIONS OF SALE

1. GENERAL. The following Terms and Conditions of Sale ("Terms and Conditions") shall govern all sales of materials or services ("Materials" or "Services") provided by Better Protection, LLC ("BP") and all owned subsidies to any buyer or end-user (the "Customer").

a. Standard Exclusions:

- **Fire Sprinkler**

1. Attic coverage
2. Raising, lowering or rerouting of any sprinkler branch lines or sprinkler main lines.
3. Custom colored escutcheons
4. Phased work, unless otherwise specified.
5. Electrical wiring, fire alarm wiring, and/or monitoring services are not part of our service unless specified otherwise in the description of services herein.
6. Adequate heat, heat tracing, and/or insulation of pipe.
7. Fire extinguisher cabinets, hangars, monitoring and related services are excluded.
8. Fire pump work of any kind and/or water storage tank unless explicitly included above.
9. Cleaning, priming, prepping, or painting of any piping is not included.
10. Water pressure below 55 psi may incur additional costs.
11. Underground work or any taps/connections to city water mains.
12. Underground piping is excluded from our service.
13. Site underground fire line piping or its flushing is not included unless explicitly mentioned. Compliance with NFPA 24 is required, and certification must be provided before connecting the automatic fire sprinkler protection system to the underground supply.
14. Backflow preventers, fittings, valves, devices, taps, bores, vaults, and freestanding fire department connections are not covered.
15. Protection of fire sprinkler components from damage or painting is excluded.
16. Protective covers can be provided at an additional cost if not explicitly included.
17. Permits, design, and/or expediting fees unless explicitly included above.
18. Design from PDF drawing files. DFS requires .dwg or other CAD-compatible file types for design services. If CAD-compatible files are unavailable, DFS can provide services to create at additional cost.
19. Prevailing wages, overtime or premium labor time unless explicitly included above. **If required, this can be added at additional cost.**
20. Cutting/patching/painting/replacement of ceiling tiles, ceiling structure, sheetrock, or finishes.
21. Protection of finished flooring, walls, or adjacent architectural items.
22. Detailed housekeeping. DFS will leave area broom clean.
23. Unforeseen conditions.
24. Emergency Responder Radio System.
25. Coordinated drawings.
26. BIM design or BIM Coordination.
27. Liquidated and/or consequential damages.
28. Modifications or additions to our current insurance.
29. Sales tax, unless otherwise specified.
30. Fire caulking and/or fire stopping.
31. All coring and/or sleeving.
32. Splash blocks
33. MIC testing
34. Knox Box or FDC Knox Caps
35. Entire compartment upgrade requested by AHJ
36. **DFS Fire Systems shall not be responsible for damage to the work or property of others, nor subject to back charges unless such damage is proven to result from its sole negligence.**
37. **CHANGES MADE BY THE AUTHORITY HAVING JURISDICTION (AHJ).**
38. **All items not explicitly called out above in the Scope of Work are *EXCLUDED* from this proposal**

- **Fire Alarm**

1. Underground conduit is excluded from our service.
2. 110v AC power.
3. Phased work, unless otherwise specified.
4. Electrical wiring and/or monitoring services are not part of our service unless specified otherwise in the description of services herein.
5. Fire extinguisher cabinets, hangars, monitoring and related services are excluded.
6. Cleaning, priming, prepping, or painting is not included.
7. Protection of fire alarm components from damage or painting is excluded. Protective covers can be provided at an additional cost if not explicitly included.
8. Permits and/or design unless explicitly included above.
9. Prevailing wages, overtime or premium labor time unless explicitly included above. **If required, this can be added at additional cost.**

10. Cutting/patching/painting/replacement of ceiling tiles or finishes.
11. Detailed housekeeping. DFS will leave area broom clean.
12. Protection of finished flooring, walls, or adjacent architectural items.
13. Unforeseen conditions.
14. Duct smoke detectors.
15. HVAC shutdown interface and wiring.
16. Telco lines or any other path of transmission, unless otherwise specified.
17. Emergency Responder Radio Coverage System (ERRC), installation and grid testing
18. Emergency Two-Way Communication System (ETWC)
19. Door holder and/or access control devices.
20. Programming of proprietary fire alarm systems.
21. All conduit that is not required by code.
22. Coordinated drawings.
23. BIM.
24. Liquidated and/or consequential damages.
25. Modifications or additions to our current insurance.
26. Sales tax, unless otherwise specified.
27. Fire caulking and/or fire stopping.
28. All coring and/or sleeving.
29. Fire alarm system capability upgrades.
30. **DFS Fire Systems shall not be responsible for damage to the work or property of others, nor subject to back charges unless such damage is proven to result from its sole negligence.**
31. **CHANGES MADE BY THE AUTHORITY HAVING JURISDICTION (AHJ).**
32. **All items not explicitly called out above in the Scope of Work are *EXCLUDED* from this proposal**

2. WORKING HOURS. All Services shall be performed during regular business hours, which are 7:00 a.m. to 4:00 p.m. CST Monday through Friday. In the event Customer requests performance at any other time, an additional amount shall be billed and paid by Customer, over and above the agreed upon contract Price, as compensation for overtime wages and for other expenses occasioned thereby.

3. PAYMENT. Any payment schedule outlined in the Proposal prevails over this Payment section. Payment shall be due and payable thirty (30) days from invoice date. Past due accounts are subject to a late fee of one and one-half percent (1½%) per month or the highest rate permitted by law, whichever is lower. Acceptance of payment on any past due amounts shall not be deemed a waiver of any rights BP may have against Customer for late payment. Supplier may demand assurance of Customer's ability to pay whenever it reasonably appears that such ability is in doubt.

4. INSPECTION FEES. All inspection fees charged by the Authority Having Jurisdiction (AHJ) (including permit fees and filing fees) are subject to change at any time. These fees are set by the AHJ and are paid to the AHJ by BP on behalf of the Customer.

5. DEPOSITS. Any required deposits will be listed explicitly on the proposal submitted to the Customer by BP. Such deposits must be paid to BP prior to the commencement of work.

6. WARRANTY.
a. The Materials provided are manufactured by other parties and are warranted by those manufacturers against defects in materials and workmanship for a period of time depending on the Materials. To the extent allowed by contract, law, or otherwise, BP will pass through to Customer any and all warranties that are in effect for Materials purchased. Customer's sole remedy for defective Materials shall be those afforded through the manufacturer's warranty, unless such defect(s) is the results of negligent installation by BP. BP will administer the manufacturer's warranty.
b. Services will be performed with reasonable care and skill ordinarily exercised by others in similar professions, under similar circumstances. If Customer notifies BP within 90 days of discovery of defects in Services, then BP, at its sole election, will either re-perform the Services or return the Price paid for them. In the event BP's investigation or inspection reveals no defect, BP's regular charges for any and all repairs shall apply. This warranty does not cover defects arising from Customer's or Customer's agents' misuse, abuse, neglect, or improper handling.
c. BP will honor any warranties that are stated in the Proposal.
d. BP MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED – INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY OR THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE – UNLESS OTHERWISE SET FORTH IN WRITING AND SIGNED BY AN AUTHORIZED OFFICER OF BP. ANY OTHER WARRANTIES OF ANY NATURE INCONSISTENT WITH THOSE SPECIFIED HEREUNDER, WHETHER MADE BY A SALESPERSON, REPRESENTATIVE, DISTRIBUTOR, DEALER AND/OR EMPLOYEE OF BP i) SHALL NOT CONSTITUTE A WARRANTY; ii) SHALL NOT BE RELIED UPON BY CUSTOMER; AND iii) ARE NOT A PART OF THESE TERMS AND CONDITIONS.

7. DELAYS. Customer shall provide BP access to the worksite premises, facilities, and equipment necessary for BP to timely perform the work. BP shall be free to start and stop all primary equipment incidental to BP's performance of the work, as arranged with Customer's representative. If Customer – including Customer's agents and subcontractors – delays or interrupts progress of the work, all additional on-site time, travel time and materials and expenses shall be borne by the Customer. BP shall bear no liability for any delays or failure to perform caused by Customer or Customer's agents and subcontractors.

8. SAFETY. The Customer shall ensure that the work environment is free from environmental and safety hazards.

9. MODIFICATIONS. On Customer's request for a change in scope, BP will submit a proposal specifying any changes, including the Price and schedule, and shall proceed with the changes upon written agreement by Customer.

10. RENEWAL OF AGREEMENTS. Multi-year inspection/monitoring agreements do not automatically renew. A written extension or new agreement would need to be signed by both parties.

11. BREACH. In the event of Customer's breach or default hereunder, including without limitation Customer's wrongful rejection or refusal to accept delivery or repudiation of its contract to purchase Materials, or Customer's failure to make payment due hereunder, BP shall be entitled to exercise any and all remedies provided by law and under the Uniform Commercial Code, and to recover the Price of any such Materials. All rights and remedies of BP shall be cumulative and may be exercised from time to time, either consecutively or concurrently. BP and Customer agree that any Materials not normally carried in BP's inventory or that cannot be readily resold at a reasonable price, purchased by BP in complete or partial fulfillment of Customer's order, shall be deemed identified to the contract between BP and Customer.

12. INDEMNIFICATION. Customer agrees to defend, indemnify and hold BP and its parents, officers, and affiliates harmless from and against any damage, deficiency, loss, cost, action, claim, judgment or expense, including without limitation, reasonable attorneys' fees, arising from any bodily injury, including death, or in connection with any damages to or loss of property sustained by any person, whether direct, indirect or consequential, arising from or related to any Materials or Services provided by BP, arising out of Customer's gross negligence or willful misconduct, and except for claims or damages resulting from BP's negligence. BP agrees to defend, indemnify and hold Customer and its board members, directors, officers, unit owners, residents, and managing agent harmless from and against any damage, deficiency, loss, cost, action, claim, judgment or expense, including without limitation, reasonable attorneys' fees, arising from any bodily injury, including death, or in connection with any damages to or loss of property sustained by any person, whether direct, indirect or consequential, arising from or related to any Materials or Services provided by BP and arising out of BP or its agent or employee's gross negligence, willful misconduct, derogation of written instructions by Customer, or breach of this Agreement. BP will add Customer and its managing agent as additional insureds on its commercial general liability insurance policy during the term of this Agreement. The indemnification provisions of this Agreement shall survive expiration or termination of the Agreement.

13. LIABILITY. Nothing contained in these Terms and Conditions shall be construed so as to limit or exclude the liability of BP for death or personal injury as a result of BP's negligence or that of its employees or agents. IN NO EVENT WILL BP BE LIABLE TO THE CUSTOMER OR ANY THIRD PARTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES IN ANY MANNER IN CONNECTION WITH OR ARISING OUT OF BP'S SUPPLY OF GOODS OR SERVICES, REGARDLESS OF THE FORM OF ACTION OR THE BASIS OF THE CLAIM OR WHETHER OR NOT CUSTOMER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

14. RELATIONSHIP OF THE PARTIES. Nothing contained herein shall be construed as establishing or implying any partnership or joint venture between the parties and nothing herein shall be deemed to construe either of the parties as an agent of the other.

15. FORCE MAJEURE. Either party shall bear no liability whatsoever to the other party for any failure to perform or delay caused by fire, earthquake, explosion, flood, hurricane, tornado, war, invasion, insurrection, rebellion or riots, and any such failure or delay due to such cause shall not be deemed a breach of or default in the performance by the party declaring a force majeure event (the "declaring party"). The non-declaring party may cancel the contract without penalty if performance by the declaring party does not resume within thirty (30) days of the declaration.

16. GOVERNING LAW, JURISDICTION. The laws of the State of Illinois shall apply to this contract and its construction. All disputes arising hereunder shall be submitted to the exclusive jurisdiction of the applicable courts of Cook County, Illinois.

17. SEVERABILITY. To the extent any provision or clause in this contract is prohibited by any law or is deemed invalid, unenforceable, or against public policy, such prohibition or unenforceability shall not invalidate any of the remaining provisions or clauses in these Terms and Conditions.

18. WAIVER. Except as specifically waived in writing, failure by a Party to exercise or enforce a right does not waive that Party's right to exercise or enforce that or other rights in the future. No waiver of any breach of any provision of this contract shall constitute a waiver of any other breach of the same or any other provision.

19. ORAL STATEMENTS. Any salespersons, representatives, distributors, dealers and/or employee of supplier may have made oral or written statements about the materials or services described herein, such statements do not constitute warranties, shall not be relied upon by the Customer and are not a part of this contract.

20. SIGNATURE: Person(s) providing signatures for any job documents understands that their signature applies to all job documents associated with the job, including but not limited to, pre work acknowledgements, work acknowledgements, work orders, inspections reports, etc.

By my signature below, I authorize work to begin and agree to pay the Grand Total according to the terms and conditions of this agreement.

Name: _____ Date: _____

Signature: _____

January 28, 2026

West Oak Coffee Bar

114 W. Oak

Kristen Pulido
Main Street Program Manager
Office of Economic Development

FY 25/26 Downtown Reinvestment Grant Budget Status

FY 25/26 Downtown Reinvestment Grant Pipeline Stage		
Status	**Total**	**Est. Amount Awarded**
Application Review	4	$160,000
Awaiting Application	12	$472,500
Leads	4	$225,000
TOTAL		**$857,500**

Projected 25/26 Tax Increment Reinvestment Zone Number One Grants		
Owner/Business	**Address**	**Requested Amount**
Fine Arts Theater of Denton, LLC	115-116 N. Elm St.	$50,000
West Oak Coffee Bar	114 W. Oak St.	$50,000
West Oak Coffee Bar	114 W. Oak St.	$50,000
	TOTAL	**$150,000**
	FY 25/26 Grant Budget	***$200,000***
	Est. Fund Balance	***$50,000***

ALIGNMENT WITH CITY PLANS

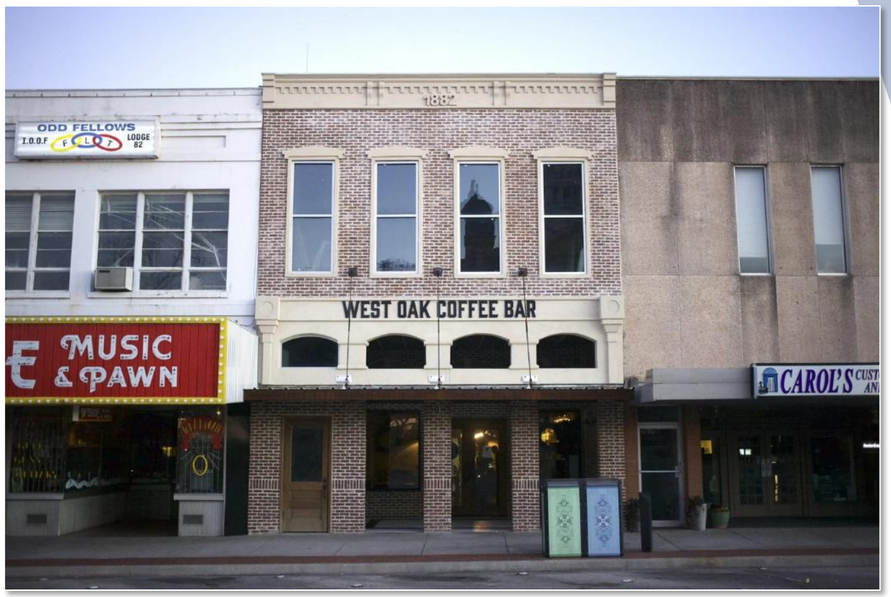
- **City's Strategic Plan**
  - Key Focus Area 3: Foster Economic Opportunity and Affordability
    - Grow Denton's Economic Vitality
  - Key Focus Area 4: Strengthen Community and Quality of Life
    - Preserve Community Character and Identity
    - Strengthen Community Amenities

- **Economic Development Strategic Plan**
  - 2D.2 Downtown Development

- **Design Downtown Plan**
  - Community Priority: Retail and Commercial Development

BACKGROUND

- 2014 – West Oak Coffee Bar opens in Downtown Denton
  - Offering an inviting space where Dentonites can gather and enjoy high-quality coffee.
  - Coffee distributer to several local coffee shops and organizations
    - Eagle Cawffee
    - Marty B's Coffee
    - University of North Texas
- 114 W. Oak – Part of the Historic Denton Square District
  - While the district had significant development during the 1880's, a series of fires in the late nineteenth century destroyed many original buildings.



FIRE SUPPRESSION

Projected Project Cost: $171,751.16

Fire Suppression System applications automatically receive the maximum score of 40 points = grant recommendation up to $50,000.

West Oak Coffee Bar - Grant Application		
Project Category	**Estimated Cost**	**Grant Limit**
Fire Suppression	$171,751.16	50% up to $50,000
Total Project Cost	**$171,751.16**	**$85,875.58**
Total Grant Request:	***$50,000***	

PRIOR ACTION

On December 4, 2025, the Downtown Economic Development Committee (DEDC) reviewed the West Oak Coffee Bar application for Fire Suppression. Fire Suppression System applications automatically receive the maximum score of 40 points which equals a grant recommendation up to $50,000. The Downtown Economic Development Committee recommends approval (7-0).

NEXT STEPS:

Recommend approval of grant amount by the DEDC to City Council.

Questions?

Matt Fisher & Mattea Edmonson
West Oak Coffee Bar

City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: **Economic Development**

ACM: **Christine Taylor**

DATE: **January 28, 2026**

SUBJECT

Receive a report and hold a discussion regarding the Downtown Reinvestment Grant Policy.

BACKGROUND

The Downtown Reinvestment Grant Program was created in 2007. Since its creation, $1,150,755 in grants have been distributed.

When the grant was created, it was initially funded through an annual allocation of $100,000 in mixed beverage taxes. In 2018, the City Council approved Ordinance 18-1321, which moved the funding source for the Downtown Reinvestment Grant Program to the Downtown TIF Fund and changed the recommending body to the Downtown TIRZ Board. To date, $529,796 in grant funds have been awarded from the Downtown TIF Fund.

At the September 25, 2025, meeting of the Downtown TIRZ Board, board members requested a review of the Downtown Reinvestment Grant Program. This was due to related discussions held during the recent Downtown Reinvestment Grant Boundary Update.

PRIOR ACTION/REVIEW

February 14, 2007 - The Downtown Task Force (now Downtown Economic Development Committee) unanimously recommended creating an incentive program to promote desired development/redevelopment in the Downtown area.

April 3, 2007 – City Council adopted the Downtown Incentive Reimbursement Grant Program.

September 10, 2018 – City Council adopted Ordinance No. 18-1321 approving changes to the funding source (Mixed Beverage Sales Tax to the Downtown Tax Increment Reinvestment Zone 1), policy and procedures for the Downtown Reinvestment Grant.

August 18, 2020 – City Council adopted Ordinance No.20-1521 approving changes to the maximum available grant award for the Downtown Reinvestment Grant Program.

December 14, 2021 – City Council adopted Ordinance No.21-2626 approving changes to the maximum available grant award and limiting the number and timing of grants for properties that have already been improved using grants from the Downtown Reinvestment Grant Program.

RECOMMENDATION

Staff recommends feedback and direction to prepare proposed revisions for review at the next TIRZ 1 & 1A meeting.

EXHIBITS

Exhibit 1 – Agenda Information Sheet
Exhibit 2 – Downtown Denton Reinvestment Grant Policy & Application
Exhibit 3 – Garland Downtown Revitalization Program
Exhibit 4 – Georgetown Façade and Sign Reimbursement Grant Application
Exhibit 5 – Corpus Christi TIRZ 3 Downtown Incentive Application
Exhibit 6 – Presentation

Respectfully submitted:
Kristen Pulido
Main Street Program Manager
Office of Economic Development

DOWNTOWN REINVESTMENT GRANT PROGRAM POLICY

I. GENERAL PURPOSE AND OBJECTIVES

The City of Denton's Department of Economic Development promotes Denton and its unique character through the redevelopment and revitalization of Downtown, historic preservation, community involvement, and by providing educational and technical assistance to business and property owners. With Downtown as a key focus area of Denton's economic development program, the City Council adopted the following Downtown Reinvestment Grant Program.

Applications shall be submitted on the application form attached hereto as Exhibit "A" and incorporated herein for all purposes, and are considered as they are received, and may be funded, if approved, until funds are depleted.

II. GRANT GUIDELINES

1. Facade rehabilitation grant funds are available for exterior work on building facades that immediately overlook public streets located in the Downtown area as defined by the Downtown Tax Increment Financing Reinvestment Zone Number One – Downtown (TIRZ #1), see attached map, page 5.

2. Roof and foundation work on commercial buildings in the TIRZ #1 area may also be eligible for grant funds, providing costs do not exceed 50% of the grant request.

3. Interior and Code Improvement work includes asbestos and mold abatement, fire suppression systems, and improvements required by or in accordance with the Americans with Disabilities Act, as amended.

4. No grant applications will be accepted for work that has already been started or completed, or for work that is covered by insurance.

5. Grants are awarded on a reimbursement basis once completed work has been verified by City staff as compliant with the plans proposed in the approved application. Any deviation from the approved project may result in the total or partial withdrawal of the grant. Grants are awarded as a single payment to the applicant.

6. All submitted work will be reviewed based on the Secretary of the Interior's *Standards for Rehabilitation*, as amended, and the City of Denton's Municipal Codes and Ordinances.

7. Grant applications and awards can be made in any of the reimbursable activities listed in Section III and may be combined for any single property or project. However, the maximum award amount available per property is $50,000. Grants or portions of grants for Fire Suppression Systems do not count toward the maximum award amount available per property.

8. The maximum available grant award is $50,000 per application but there is no limit to the total amount of grant funds that can be awarded per property. Grants or portions of grants for Fire Suppression Systems do not count toward the maximum available grant award per application.

9. An applicant is defined as an eligible property or business owner within the TIRZ # 1 area. A single owner of multiple properties may apply for grant funds for each property owned but may not receive more than $50,000 per property per application. Grants or portions of grants for Fire Suppression Systems do not count toward the maximum available grant award per property per application.

10. If an applicant is awarded a reinvestment grant for a property, that property is not eligible for another grant for three (3) years from the date of grant approval, unless the original or new grant would be solely for a Fire Suppression System or unless the property is sold or transferred to another owner or is occupied by a new or different business.

11. If an applicant is awarded a reinvestment grant for facade, awning or sign work and the facade, sign or awning is altered for any reason within one (1) year from construction, the applicant may be required to reimburse the City of Denton immediately for the full amount of the grant.

12. Projects will be reviewed and ranked with the following considerations in mind:
    - Project results in an increase in property valuation and/or generates sales tax revenue
    - Project rehabilitation reflects historic accuracy
    - Project improves the capacity of water, wastewater or electric utility services
    - Projects provides improvements to health and safety
    - Water/Wastewater impact fees are assessed
    - Project results in a significant increase in downtown population (residents and/or day or night users). Other appropriate impacts may be considered on a case-by-case basis, including, but not limited to: partners with other businesses (i.e., shared parking), project is a "target" business (i.e., grocery, pharmacy, etc.), and/or promotes development of arts and entertainment downtown.

III. PROGRAM DETAILS

Reinvestment grants are available for the following types of projects:

Facade Rehabilitation and Building Renovation

Definition:

Removing slipcovers or non-historic/added facades, repainting brick or replacing mortar joints, replacing or restoring cornices, removing paint from brick, replacing windows, restoring transom windows, painting, roof and foundation work.

Grant Limits:

Facade rehabilitation and building grants are limited to a 50% match of the eligible projects costs, with a cap of $50,000 per grant for facade, roof and foundation work. Roof and foundation repair may constitute no more than half of the request and shall only be considered for funding if included as a portion of a larger project.

Paint-only grants are limited to a 50% match with a cap of $7,500 per grant.

Awnings and Signs

Definition:

Replacing, adding or repairing awnings and signs. Signs may include signboards, projecting signs and pedestrian signage (includes window sign, hanging sign and awning/canopy sign).

Grant Limits:
Awning grants are limited to a 50% match with a cap of $7,500 per grant. Sign grants are limited to a 50% match with a cap of $2,500 per grant.

Impact Fee Reimbursement

Definition:
Reimbursement for City of Denton water and wastewater impact fees.

Grant Limits:
Impact Fee grants are limited to a 50% match with a cap of $50,000 per grant.

Utility Upgrades

Definition:
Upgrades to water, wastewater and electrical service, includes interior upgrades as well as exterior service upgrades.

Grant Limits:
Utility Upgrade grants are limited to a 50% match with a cap of $50,000 per grant.

Interior/Code Improvements

Definition:
Asbestos and mold abatement and improvements made as required by or in accordance with the Americans with Disabilities Act, as amended.

Grant Limits: Interior/Code Improvement grants are limited to a 50% match with a cap of $50,000 per grant.

Fire Suppression Systems

Definition:
Installation of a new fire suppression system or necessary updates to an existing fire suppression system in accordance with International Fire Code (IFC) and International Building Code Chapter 9, currently followed by City of Denton.

Grant Limits: Fire Suppression System grants are limited to a 50% match with a cap of $50,000 per grant.

IV. GRANT APPLICATION PROCESS

1. Contact the Economic Development department to discuss the project and determine eligibility. If requested, a staff member with the Economic Development department will set up an appointment with the Texas Main Street Center's Architectural Assistance Program, which provides free assistance in selecting paint, color schemes and building and sign materials for building façade and signs.

2. Complete the grant application form and sign the agreement form. Return the completed application form with all original itemized work estimates, color samples, drawings and example sign material of the proposed work to the Economic Development office at 401 N. Elm Street. Applications should include:

   a. Drawings of all proposed grant work to be done. Drawings may be prepared by the Texas

Main Street Architect, the project architect, or contractor. Color samples of all final paint selections and/or final building or sign material selections **must** be included with the application.

b. Itemized work estimates on all project work from contractors or project architects **must** be included with the application. (Self-contracted work will be reimbursed for eligible expenses, excluding labor.)

c. Photos of the building's exterior, interior, roof or foundation (areas where work is to be performed).

d. Legal description of the property.

3. The approval process will include without limitation the following:

a. All projects must meet current building standards and codes, as well as building permit requirements.

b. Applicants are required to attend and present their project to the Downtown Economic Development Committee (DEDC), the Downtown TIRZ Board, and City Council.

The DEDC meets monthly, as needed. The DEDC will score applications and make a recommendation to the TIRZ #1 Board.

Grants then must be reviewed by the TIRZ # 1 Board. The TIRZ #1 Board will make a recommendation to the Denton City Council. The TIRZ meets bi-monthly and will review submitted applications and consider the DEDC's recommendation.

c. If recommended by the TIRZ #1 Board, grants will be placed on the Denton City Council agenda. The DEDC and TIRZ #1 Board recommendations are advisory only, and no recommendation shall be binding on the Denton City Council. The Denton City Council has the final discretion with regard to funding and reserves the right to modify or reject any project or elements of any project.

d. Applications must be complete and contain all required information. Additional information requested by the DEDC, TIRZ #1 Board or the Denton City Council must be provided prior to consideration of the grant.

e. All construction bids submitted by an applicant must be current and must be dated no earlier than ninety (90) days prior to the application request. Bids shall be submitted on the contractor's or project architect's letterhead and shall contain the contractor's name, address, and telephone number and shall itemize the bid in a manner that allows the DEDC, TIRZ #1 Board and Denton City Council to determine the bid components and authenticity of the bid.

f. An applicant whose application that has been denied by the Denton City Council shall not be eligible to re-submit a grant application for six (6) months from the date the prior application was declined by the Denton City Council.

g. Applicants receiving approval shall commence construction described within the

application within ninety (90) days from the date the grant is awarded. All applicants must complete the construction described in the application within one (1) year from the date the grant is approved. If the applicant is unable to commence construction within ninety (90) days from the date the grant is approved or complete construction within one (1) year from the date the grant is approved, the applicant may submit a written request for an extension for the commencement date or completion date provided the extension request is made prior to the ninety (90) day or one (1) year time limit. The DEDC, TIRZ #1 Board or Denton City Council shall not be obligated to allow extensions but may do so for good cause determined solely by the entity which authorized the grant. The extensions, if granted, shall be for the term and for the conditions determined exclusively by the entity which authorized the grant. An extension denial cannot be appealed and shall be final.

h. As a condition of the grant, the applicant consents and shall allow Economic Development staff to request City inspections to determine that the grant, if awarded, will not be used for construction on any building that is not in compliance with the City Municipal Codes and Ordinances that are applicable to the construction contemplated in the application.

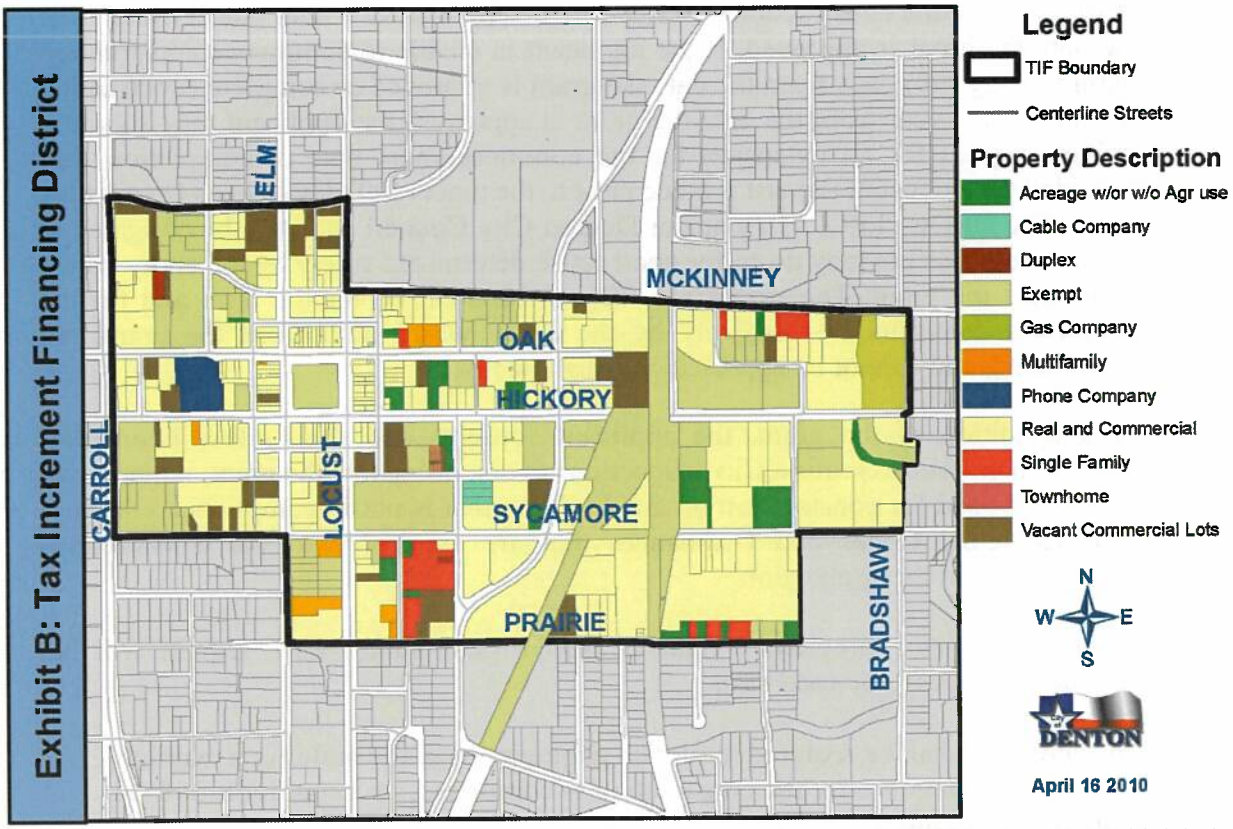
i. No applicant has a proprietary right to receive grant funds. Each request will be considered on a case-by-case basis.

j. The applicant shall be required to furnish photographs of the building's exterior, roof and foundation after the construction is completed, as a condition of final grant reimbursement.

k. The applicant is required to obtain all applicable City permits and City approvals required for the construction if a grant is awarded.

l. An applicant should attend DEDC, TIRZ #1 Board, and Denton City Council meetings in which consideration of the application occurs.

4. **Reimbursement:** When the grant project has been satisfactorily completed and reviewed, the applicant shall present the Economic Development office with copies of all paid invoices, including copies of cancelled checks and/or credit card receipts, for a single payment reimbursement of the approved funding. In addition, the applicant must complete a City of Denton Vendor Form and a Form 1099 to receive payment from the City. Vendor forms and 1099s will be provided by the Economic Development Department.



This map is a graphic representation prepared by the City of Denton and is intended for use only as a reference. Data depicted is not guaranteed for accuracy and may be subject to revision at any time without notification. A Registered Surveyor for the State of Texas was not consulted. For Survey level accuracy, supervision and certification of the produced data by a Registered Professional Land Surveyor for the State of Texas would need to be performed.

EXHIBIT A

CITY OF DENTON
DOWNTOWN REINVESTMENT GRANT PROGRAM APPLICATION

Department of Economic Development
401 N. Elm St., Denton, TX 76201
940-349-7776
www.cityofdenton.com
ED@cityofdenton.com

Downtown Reinvestment Grant Program Application

Please return completed the application with necessary attachments and signatures to the Economic Development Department office at 401 N. Elm St., Denton, Texas. If you have any application questions, please contact the Economic Development Department at 940-349-7776.

Applicant Name	Date
Business Name	
Mailing Address	
Contact Phone	Email Address
Building Owner (if different from applicant)	
Historical/Current Building Name	
Project Site/Address	

Type of Work: (check all that apply)

- ☐ Paint Only
- ☐ Signage
- ☐ Utility Upgrades
- ☐ Facade & Building Renovation
- ☐ Awnings
- ☐ Impact Fees
- ☐ Interior/Code Improvements
- ☐ Fire Suppression System

Details of planned improvements relating to grant request (attach additional information if necessary).

How will this project benefit Downtown?

Legal Description of the property:

Project Categories	Estimated Costs	Grant Requested
Facade/Building Rehab		
Awnings		
Signs		
Impact Fees		
Utility Upgrades		
Interior/Code Improvements		
Fire Suppression System		
Totals		

TOTAL COST OF PROPOSED PROJECT $ _____

TOTAL GRANT REQUEST
(May not exceed 50% of TOTAL COST up to $50,000) $ _____

Attach all required color samples of paint, awning/canopy, sign design, etc., as well as photographs of building's exterior facade, roof and foundation.

_____

Applicant's Signature *Date*

DOWNTOWN REINVESTMENT GRANT AGREEMENT FORM

Please complete and return with the Downtown Reinvestment Grant Application to the Economic Development office, 401 N. Elm St., Denton, Texas. If you have any questions, please contact the Economic Development Department at 940- 349-7776.

I have met with a representative from the Economic Development Department, and I have read and fully understand the Downtown Reinvestment Grant procedures established by the Denton City Council. I intend to use this grant program for the aforementioned renovation projects to advance the efforts of revitalization and historic preservation of Denton's historic downtown. *I have not received, nor will I receive insurance monies for this revitalization project.*

I understand that if I am awarded a Downtown Reinvestment Grant by the City of Denton, any deviation from the approved project may result in the partial or total withdrawal of the grant. (If I am awarded a reinvestment grant for facade, awning or sign work and the facade, sign or awning is altered for any reason within **one (1) year** from construction, I may be required to reimburse the City of Denton immediately for the full amount of the grant.)

_____

Business/Organization Name

_____

Applicant's Signature *Printed Name* *Date*

_____

Building Owner's Signature (if different from applicant) *Printed Name* *Date*

This section is to be completed by Economic Development staff.

_____

Date considered by DEDC *Recommendation* *Staff Signature*

_____

Date considered by TIRZ #1 Board *Recommendation* *Staff Signature*

_____

Date considered by City Council *Approval* *Staff Signature*

REVIEW PROCESS

Total project scores can range from 0 to 35 points.

Recommendations will be based on:

0-9 points	=	No funding
10-14 points	=	Grant recommendation of up to $7,500
15-19 points	=	Grant recommendation up to $15,000
20-24 points	=	Grant recommendation up to $25,000
25-29 points	=	Grant recommendation up to $35,000
30-40 points	=	Grant recommendation up to $50,000

All grants will be subject to a recommendation by the Downtown Economic Development Committee, TIRZ #1 Board, and approval by the Denton City Council.

Grant applications will be scored based on:

- **Economic Impact - 0-5 Points**
  - Total investment dollars as provided in the grant application
  - Investment in structure construction or renovation (excluding purchase price)
  - Investment in furniture, fixtures and equipment; estimated taxable sales

- **Historic Accuracy/Design - 0-5 Points**
  - New construction/complements existing buildings
  - Restores building to historic accuracy
  - Renovation of building with historic marker (Local, state or national historic marker)

- **Upgrades to Utilities/Impact Fees - 0-5 Points**
  - Requires upgrades in electrical service
  - Increases existing water/wastewater capacity
  - No existing utilities to structure
  - Extends water/wastewater lines (improves additional properties)
  - Impact fees may be ranked depending upon percentage of fees to eligible expenses

- **Increases Population - 0-5 Points**
  - Increases consumer traffic (day or night)
  - Increases quality residential units
  - Increases walkability or pedestrian activity/accessiblity

- **Interior/Code Improvements - 0-5 points**
  - Asbestos and mold abatement
  - Fire suppression systems
  - ADA improvements

- **Other - 0-15 Points**
  Including, but not limited to:
  - Partners with other businesses (i.e., shared parking)
  - Project is a "target" business (i.e., grocery, pharmacy, locally owned)
  - Promotes development of Denton arts and entertainment
  - Longevity of business

- **Fire Suppression System – 40 points**
  - Fire Suppression Systems applications automatically receive the maximum score

GARLAND

DOWNTOWN HISTORIC DISTRICT REVITILIZATION PROGRAM

Please return completed Application Form with necessary attachments and signature to:
City of Garland
ATTN: Downtown Coordinator
PO Box 469002
Garland, TX 75046

If you have any questions, please contact the Downtown Coordinator, Letecia McNatt, at 972-205-2370 or lmcnatt@garlandtx.gov.

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GARLAND

Downtown Historic District Revitalization Program
Applicant Checklist

Applicants	✓
Meet with Downtown Development Office ("DDO") to determine eligibility and walk through instructions	
If any work may require a building or sign permit, meet with Building Inspections Department	
If any work involves historic integrity issues, meet with City's designated historic integrity staff representative	
Application Form (Exhibit "B")	
Agreement Form (Exhibit "E")	
Scaled drawings that illustrate design intent of all proposed grant work to be done including: • Renderings of the proposed project, • Proposed materials to be used, and • Color samples of all final paint selections and/or final fabric or sign material selections where necessary •	
Historic photographs of Garland Square or commercial property itself, if available	
Recent photographs of the area where improvements are to be made	
Bid proposals from qualified contractors detailing cost of the work to be done	
Statement of how proposed improvements further historic character and appearance of the DHD	
Schedule an appointment for reviewing Application with the Downtown Design Review Committee ("DDRC")	

If Application is approved, Grant Recipient ("Recipient") shall also complete the following requirements:

Recipients	✓
Forms required by the Purchasing Department for reimbursement including: • Vendor Application • Vendor Direct Deposit Form • W-9 Form	
Commence construction within ninety (90) days upon receipt of written notice from City	
Complete construction within one (1) year upon receipt of written notice from City	
Reimbursement Request Form (Exhibit "F") with itemized list of work along with proof of payment by Recipient for costs incurred in connection with Project including, without limitation: copies of paid invoices, cancelled checks, credit card receipts, and notarized final lien waivers from all contractors, subcontractors, and suppliers (within 30 days of Project completion)	
Photographs of the project showing improvements (within 30 days of Project completion)	
Certificate of Compliance (Exhibit "G") (within 30 days of Project completion)	

GARLAND

Downtown Historic District Revitalization Program
Program Overview

I. GENERAL PURPOSE. The City of Garland promotes Garland and its unique character through redevelopment and revitalization of Downtown, historic preservation, and community involvement. The City has established this commercial historic revitalization program to encourage rehabilitation, enhancement, restoration, and preservation of façades, signage, and general improvements in the Downtown Historic District ("DHD") as a catalyst to: (i) attract new customers and businesses to Garland's DHD; (ii) stimulate new, private investment and economic development in the DHD; (iii) positively impact the marketability and perception of the DHD; and (iv) promote commercial revitalization of the DHD. The City has determined that the Downtown Historic District Revitalization Program ("DHDRP") is in the public interest and that investing public resources in the DHD will promote local economic development in the City, stimulate business and commercial activity, help attract visitors and tourists to Garland, and benefit the City and its citizens.

II. PRIMARY OBJECTIVE. The DHDRP is focused on revitalizing commercials buildings located in the DHD to make them more economically viable and visually attractive by appropriately renovating the façade or, whenever possible, restoring the façade back to its original appearance, as well as making general improvements to the building to enhance its economic and commercial appeal.

III. DEFINITIONS

Certificate of Compliance (**Exhibit "G"**) shall mean a certificate in such form as is reasonably acceptable to the City executed by the Grant Recipient certifying to the City that: (i) Grant Recipient has complied with all terms, provisions, and guidelines of the DHDRP; (ii) all Grant Reimbursement Conditions Precedent have been satisfied and are then continuing; (iii) no Grant Recipient Default then exists under the terms of this Agreement; and (iv) no event exists which, but for notice, the lapse of time, or both, would constitute a Grant Recipient Default under the terms of this Agreement.

City shall mean the City of Garland, a Texas home rule municipality.

City Council shall mean the City Council of the City.

***City Manage*r** shall mean the City Manager of the City.

Downtown Development Office *("DDO")* shall mean the Downtown Development Office of the City.

Downtown Historic District *("DHD")* shall mean only those properties located within the boundaries outlined in red on the map attached hereto as **Exhibit "A"** and made a part hereof for all purposes.

Downtown Historic District Revitalization Program *("DHDRP")* shall mean this program approved by City Council to encourage the rehabilitation, enhancement, restoration, and preservation of commercial buildings in the DHD with respect to signage, awnings, facades, and general interior and exterior improvements.

Enhancement shall mean replacing, adding, or repairing awnings and signs. Signs may include signboards, projecting signs, and pedestrian signage (includes window sign, hanging sign, and awning/canopy sign).

General Interior Improvements shall mean work performed on the interior of the commercial property that is structural in nature, and remains attached to the building, while also respecting the historical integrity of the property, improving aesthetic appeal, and remains within the guidelines in this agreement.

General Exterior Improvements shall mean work performed on the exterior of the commercial property besides façade or signage enhancements. General exterior improvements may include landscaping, sidewalk and parking lot paving, roof repair/upgrade, and fixtures or attachments to the building.

Grant Reimbursement Conditions Precedent shall mean the conditions precedent to the payment of any grant approved pursuant to the DHDRP.

Maintenance Period shall mean the period commencing with the date the City's building and code inspectors have confirmed in writing that the Work complies with all plans, approvals, building permits, and sign permits issued in connection with the Work and continuing for five (5) years thereafter.

Rehabilitation shall mean removing slipcovers or non-historic/added façades, repointing brick or replacing mortar joints, removing paint from brick, replacing or restoring cornices, restoring or replacing windows, restoring transom windows, storefront systems, or any restoration work done that is guided by the DHDRP Design Guidelines (**Exhibit "D"**).

Reimbursement Request shall mean a written request (**Exhibit "F"**) which shall be delivered to the Downtown Coordinator in person or mailed to City of Garland, ATTN: Downtown Coordinator, PO Box 469002, Garland, TX 75046.

Work shall mean the repair, removal, enhancement, replacement, restoration, construction, and installation of improvements to building façade(s), signage, and general interior and exterior improvements in the DHD that rehabilitate, enhance, and restore the aesthetic visual appeal and economic vitality such building(s) that is guided by the DHDRP Design Guidelines.

IV. TERMS, CONDITIONS, RESTRICTIONS, LIMITATIONS AND GRANT GUIDELINES

1. Eligibility Requirements

A. **Eligible Properties**. Grant funds are available for exterior rehabilitation and enhancement work on commercial building façades, and general improvements bringing property to marketable standards located in the area identified as the DHD on the map attached hereto as **Exhibit "A."**

B. **Eligible Applicants**. An Applicant must be the owner or tenant of a property within the area identified as the DHD on map attached hereto as **Exhibit "A."** Tenants may apply for grant funds with the written consent of the property owner.

C. **Eligible Projects**. The following projects are eligible for a Grant under the DHDRP:

Façade Improvement:

i. The proposed project may restore, preserve, rehabilitate, or enhance any façade of a commercial building in the DHD in accordance with the DHDRP Design Guidelines;

ii. The minimum cost of the project must be at least $10,000.

Sign and Awning Replacement:

i. The proposed project may enhance or replace stand-alone signs and awnings;

ii. Grant funds will only be reimbursed up to $5,000.

General Interior Improvements:

i. The proposed project may make improvements to the interior of the commercial building which are structural in nature, preserve the historic integrity of the property (where necessary), are attached to the building, and support the general purpose of the program;

ii. The proposed project must facilitate a positive economic impact by bringing the property to marketable standards;

iii. The proposed improvements may be eligible as a stand-alone project, or in conjunction with other eligible projects provided they meet the minimum requirements outlined in this agreement;

iv. The minimum cost of the project must be at least $10,000.

General Exterior Improvements:

i. The proposed project may make improvements to the exterior of the building provided they are performed in conjunction with any eligible project outlined in this agreement including façade improvement, sign and awning replacement, and general interior improvements;
ii. The minimum cost of the project must be at least $10,000.

Other Improvements:

i. Proposed projects which bring the commercial property into compliance with municipal building codes are considered eligible for grant reimbursement;
ii. The proposed project may not be a stand-alone improvement and must be performed in conjunction with other eligible projects including façade improvement, sign and awning replacement, and general interior improvements;
iii. The minimum cost of the project must be at least $10,000.

Additional Requirements.

i. The building where the work is to be performed must be in compliance with all applicable City codes and ordinances unless the applicant is requesting reimbursement funds to bring the property in to code compliance;
ii. The applicant's use of the building must be in compliance with the City's zoning ordinance;
iii. Ad valorem taxes assessed against the property where work is to be completed must not be delinquent, and there shall be no liens against the property for past due property taxes; and
iv. The applicant must not owe any outstanding past due property taxes, judgments, fees for code violations, or any other debts to the City that are past due.

D. **Eligible reimbursements**. The DHDRP is a single reimbursement to applicant of commercial building(s) in the DHD. Reimbursement Grants are available for commercial building rehabilitation and enhancement projects consisting of eligible improvements. The following are eligible for reimbursement under the DHDRP:

- Signs (new, repairs, replacement, removal) as part of a rehabilitation project or as a stand-alone project;
- Awnings as part of a rehabilitation project or as a stand-alone project;
- Paint;
- Removal/replacement of inappropriate or incompatible exterior finishes or materials;
- Door/window/storefront system/trim replacement or repair;
- Brick/stone/masonry;
- Structural improvements to the façade;
- Exterior lighting attached to the façade;
- Building permits and inspection fees; and
- Architect, engineering, and other professional design fees if needed or required;
- Heating, air-conditioning, plumbing, electrical;
- Sidewalk repair and/or paving;
- Parking lots and/or paving;
- Landscaping;
- Roof repair/upgrade as part of a rehabilitation project;
- Fixtures or attachments to the building such as grease traps;
- Improvements bringing the property into compliance with city building codes;
- General interior, exterior, and other improvements bringing the property to marketable standards which meet the requirements of this agreement.

E. **Non-Eligible reimbursements.** The following are not eligible for reimbursement under the DHDRP:
   - Routine maintenance;
   - Construction related equipment;
   - Financing costs;
   - In-kind, donations, or "sweat equity" contributions; and
   - Sums paid to any contractor, laborer, or supplier owned directly or indirectly by the Grant Recipient or family member of the Grant Recipient.

2. **Matching Grant**. All grants under the DHDRP are 50/50 matching grants which means that the Grant Recipient must match dollar for dollar the amount of the Grant. All of Grant Recipient's match must be for improvements within the scope of the Project proposed in the Application. All of Grant Recipient's match must be monetary.

3. **Reimbursement Grant.** The DHDRP is a reimbursement program. If an architect or engineer is needed, Grant Recipients must pay their architect, engineer, contractors, suppliers, and all other costs in connection with the Project before receiving any payment from the City.

4. **Grant Criteria**. The criteria used to review and score projects will include, but shall not be limited to:
   A. amount of the Grant requested;
   B. availability of Grant funds;
   C. other pending Grant requests;
   D. compliance of Project with terms, conditions, restrictions, limitations, and guidelines of the DHDRP;
   E. score of Project in maintaining Downtown's historic character and in preserving Contributing status of historically significant structures, as expressed in the DHDRP Design Guidelines;
   F. architectural and structural condition of building where work is to be performed;
   G. economic impact Project is anticipated to have on revitalization and redevelopment of the DHD;
   H. compliance of Project with all current building standards;
   I. ability of Project to increase the taxable value of property where work is to be performed and values of the properties around it;
   J. perceived need for proposed renovations to the building;
   K. historical accuracy of the proposed renovations and use of non-synthetic natural materials;
   L. design quality of proposed rehabilitation and compatibility of design in relation to other buildings;
   M. Project compatibility in relation to the DHD development goals at time of Application;
   N. proximity to other development projects (new construction or renovations);
   O. number of projects the Grant Recipient has already successfully completed; and
   P. such other matters as deemed appropriate may be considered on a case-by-case basis.

5. **Reimbursement Agreement.** All Grants will be awarded on a reimbursement basis. Reimbursement will only be initiated after all covenants and conditions to be performed by Grant Recipient have been satisfied, the work to be performed in connection with the Grant has been satisfactorily completed, and City staff has inspected the work and verified that it is compliant with the plans proposed in the approved Application and compliant with all city building codes and permits issued.

6. **Construction Requirements for Approved Grants**
   A. Grant Recipient is required to obtain all applicable City permits and City approvals required for construction of the project if a Grant is awarded.
   B. Grant Recipients receiving approval by the City shall commence construction described in the Application within ninety (90) days from the date the Grant is approved by the City. All Grant Recipients must complete the construction described in the Application within one (1) year from the date the Grant is approved by the City. If Grant Recipient is unable to commence construction within

ninety (90) days from the date the Grant is approved by the City or complete construction within one (1) year from the date the Grant is approved by the City, Grant Recipient may submit a written request for an extension of the commencement date or completion date to the City Manager provided the extension request is made prior to the ninety (90) day or one (1) year time limit. The City Manager shall not be obligated to allow extensions but may do so for good cause determined solely by the City Manager. An extension, if granted, shall be for the term and subject to the conditions determined exclusively by the City Manager. The denial by the City Manager of a request for extension cannot be appealed and shall be final.

C. All work contemplated by the Application must conform to applicable city building codes, zoning ordinances, and local, state, and federal laws.

7. **Process for Reimbursement**. Within thirty (30) days after completion of the project and prior to payment of any reimbursement, Grant Recipient shall provide to the City:
   A. written request for reimbursement (Exhibit "F") of the amount approved by the Grant duly executed by Grant Recipient, together with an itemized list of all work completed;
   B. photographs showing the improvements completed indicating compliance with approved drawings in connection with approved Application; proof of payment by Grant Recipient of costs incurred in connection with approved Application including, without limitation, copies of all paid invoices, cancelled checks, paid credit card receipts, and notarized final waivers or releases of lien for the work performed from all contractors, subcontractors, laborers, and suppliers; and
   C. Certificate of Compliance (**Exhibit "G"**) executed by Grant Recipient and notarized certifying that Grant Recipient has complied with all terms and provisions and that Grant Recipient is not in default and no event exists which, but for notice, the lapse of time or both, would constitute a default;

8. **Payment of Reimbursement Grant.** Provided all covenants and conditions have been satisfied, approved DHDRP Grants shall be payable as a single payment reimbursement within sixty (60) days after Grant Recipient has submitted the payment request and supporting documentation required.

9. **Grant Forfeiture.** Any deviation from approved Grant project and design without prior written consent of the City will result in total or partial withdrawal of the Grant.

10. **Non-Alteration of Grant Funded Projects.** If Applicant is awarded a DHDRP Grant for the for any reason without the prior written consent of the City within five (5) years from the date the City's building and code inspectors have confirmed in writing that the Work complies with all plans, approvals, building permits, and sign permits issued in connection with the Work, Grant Recipient will be required to reimburse the City immediately for the full amount of the Grant.

11. **Affirmative Covenant of Maintenance.** Each Grant Recipient will be required to maintain the property and its improvements in the condition of its renovated and improved state for five (5) years from the date the City's building and code inspectors have confirmed in writing that the Work complies with all plans, approvals, building permits, and sign permits issued in connection with the Work. A Grant Recipient who fails to comply with this condition shall be required to repay all of the Grant.

12. **Miscellaneous Provisions**
   A. No Grants will be awarded for work that has already been completed or for work that is covered by insurance.
   B. No Grants will be awarded for work that is not within the scope approved by the design review.
   C. Applications must be submitted and approved–via written notice from the City–prior to commencing work in order for project costs to be eligible for reimbursement.

D. No Applicant has a proprietary right to receive Grant funds. Each request will be considered on a case-by-case basis. The City shall have sole discretion in awarding Grants and the award of any Grant is subject to the allocation and availability of Grant funds. There is no certainty that Grant funds will be available at any given time.
E. Grants are considered as they are received and may be funded–if approved–until funds allocated to the DHDRP are depleted.
F. An Applicant who submits an Application that was denied a Grant by the City shall not be eligible to re-submit an Application for sixty (60) days from the date the prior Application was denied by the City.
G. Recipients of any DHDRP Grant funds must agree to observe all applicable federal, state, and local laws pertaining to the use of Grant funds.
H. No Grant funds may be assigned or pledged to any third party.
I. Grants approved through the DHDRP may be treated as income subject to federal income tax provisions. The City is not liable for any tax implications resulting from any Grant award. Grant Recipients should consult a tax advisor for tax liability information.
J. No Grant Recipient or Grant Recipient's agent or representative shall be entitled to receive Grant approval on the same property if requested within five (5) years from the date a previous Grant was awarded on the same property.
K. All proposed projects will be reviewed and scored based on the DHDRP Design Guidelines (**Exhibit "D"**). The Downtown Design Review Committee ("DDRC") will review proposed projects and make a determination based upon the project's score. Approval from the DDRC must be obtained before any eligible work may begin.
L. In the event two or more projects are under consideration and the remaining grant funds are unable to financially sustain multiple projects, the application with the highest score shall be awarded the grant reimbursement.
M. Grant Recipient shall be required to furnish "before" photographs of the project area as part of the Application request and shall provide "after" photographs showing the completed project improvements as a condition of final Grant reimbursement.
N. Grant Recipient shall be required to submit with its Application proof of ownership of the building where the project improvements are being constructed, such as a deed.
O. Construction bid(s) that are current and dated no earlier than ninety (90) days prior to the Application submittal must be presented with the Application. Construction bids shall be submitted on the project architect's, engineer's, or contractor's letterhead and shall contain the contractor's name, address, and telephone number and shall itemize the bid in a manner that allows City staff and the DDRC to determine bid components and authenticity of the bid, with a breakdown showing cost of all labor and materials.
P. All Applications must be complete and contain all required information and design intent before Application will be considered for a Grant.
Q. Applications and awards can be made only for projects as defined herein.

V. GRANT APPLICATION PROCESS

1. **Determine eligibility**
   A. Applicant shall discuss project plans with the DDO
   B. Consider DHDRP Design Guidelines as a guide to creating a successful design
   C. If advised by the DDO, set up an appointment for project review with the City's designated historic integrity staff representative and the City's Building Inspections Department

2. **Complete the Application Form (Exhibit "B") and sign the Agreement Form (Exhibit "E").** In addition, all Applications must include:
   A. Scaled drawings that illustrate design intent of all the proposed grant work to be done including:
      i. Rendering of the proposed project;
      ii. Proposed materials to be used;
      iii. Color samples of all final paint selections and/or final fabric or sign material where necessary;
   B. Historic photographs of Garland Square or commercial property itself, if available;
   C. Recent photographs of the area where improvements are to be made;
   D. Bid proposals from qualified contractors detailing the cost of the work to be done;
   E. Statement of how the proposed improvements further historic character, appearance of the DHD, facilitate economic impact, and;
   F. All other information and attachments required by the terms, conditions, restrictions, limitations, and guidelines of the DHDRP.

3. **Return the completed Application Form and set up meeting with DDRC.** The completed Application Form with all supporting documentation shall be delivered to the Downtown Coordinator in person or mailed to City of Garland, ATTN: Downtown Coordinator, PO Box 469002, Garland, TX 75046. After submitting your Application Form and relevant attachments to the DDO, schedule an appointment for reviewing Application with the DDRC.

4. **The approval process will include without limitation the following**:
   A. Only Applications that have been properly and fully completed and that contain all attachments and information required by the DHDRP will be submitted to the DDRC for consideration;
   B. Applicants are required to attend and present their project to the DDRC. The DDRC meets monthly, as needed, and will review submitted Applications to make a determination regarding Grant approval; and
   C. The DDRC has final discretion to funding and reserves the right to modify or reject any project or elements of any project.

EXHIBITS

GARLAND

Downtown Historic District Revitalization Program
Exhibit "A"
Downtown Historic District Map



GARLAND

Downtown Historic District Revitalization Program
Exhibit "B"
Application Form

Please return completed with necessary attachments (statement of how proposed improvements further historic character and appearance of DHD on a separate sheet of paper) and signature to the Downtown Coordinator in person or mailed to City of Garland, ATTN: Downtown Coordinator, PO Box 469002, Garland, TX 75046.

If you have any questions, please contact the Downtown Coordinator at (972) 205-2370 or lmcnatt@garlandtx.gov.

Applicant Information	
Applicant Name / Title	/
Mailing Address	
City, State, Zip	
Phone	
Email	
Historical / Current Building Name	/
Project's Physical Address	

Project Summary	
Scope of Work to be Undertaken (details of planned improvements for project):	
List contractor/project architect/engineer proposals and total amounts (attach bid proposals):	
Total Cost of Project Improvements	Amount of Matching Grant Assistance Requested
$	$
Estimated Start Date	Estimated Completion Date

CERTIFICATION AND SIGNATURE

The undersigned Applicant ("Applicant") authorizes the City to inspect the building where the project work is to be performed to determine whether such building is in compliance with all city codes and ordinances. The Applicant acknowledges that DHDRP Grants are provided on a reimbursement basis only and certifies that no building permit for any work described in the Application has been requested and no work for which a DHDRP Grant is being requested has commenced.

By signing below, the undersigned Applicant acknowledges that the Applicant has read and understands the terms, conditions, restrictions, limitations, and guidelines of the DHDRP and has read the DHDRP Design Guidelines and hereby certifies that this Application and the proposed work for which a DHDRP Grant is being requested is guided by: (i) the DHDRP Design Guidelines and (ii) all of the restrictions, Grant limitations, terms, conditions, and guidelines of the DHDRP.

Incomplete Applications will not be processed until all required information and documents are submitted. An incomplete Application will automatically be denied if all required information and documents are not submitted within thirty (30) days after the Application is received by the City of Garland DDO.

Signature of Applicant	Date

FOR ADMINISTRATIVE USE ONLY:

Date Submitted	Date Reviewed	Downtown Coordinator Signature	Approved
			☐ Yes $_____ ☐ No

GARLAND

Downtown Historic District Revitalization Program
Exhibit "C"
Application Scoring Sheet

SCORING CRITERIA	SCORE
ECONOMIC IMPACT	**0 - 20**
a. Investment in structural work to improve the economic vitality and commercial appeal of the building	
b. Investment to bring property to marketable standards	
c. Project to increase the taxable value of property where work is to be performed and values of the properties around it	
CHARACTER OF HISTORIC DISTRICT	**0 - 20**
a. Adheres to attached DHDRP Design Guidelines	
b. Proposed design contributes to existing overall character of Downtown	
c. Promotes an authentic and distinct sense of place within DHD	
HISTORIC INTEGRITY OF BUILDING	**0 - 20**
a. Respects historical integrity; applies to all buildings, whether deemed individually historically significant/*Contributing* or not	
b. Maintains *Contributing* Status/historic significance of a structure by adhering to the Secretary of the Interior's Historic Preservation Standards; applies to any structure already deemed *Contributing*/historically significant	
VISUAL INTEREST	**0 - 15**
a. Preserves an existing iconic element of the building/Square	
b. Creates a new architectural element or feature that improves the iconic profile of the building and contributes to the overall enhanced marketability of the district	
STRATEGIC CONSIDERATIONS	**0 - 15**
a. Property is of particular importance to implementing a Catalyst Area, economic development strategy, master plan, or other strategic initiative	
b. Partners with other businesses	
c. Project is a "target" business (i.e., locally owned retail, dining, arts)	
d. Promotes the expression of art, entertainment, and/or culture	
QUALITY OF APPLICATION	**0 - 10**
a. Overall design is of quality and professionally crafted	
b. Proposal is complete and realistic to accomplish as presented	
TOTAL SCORE:	_____ / 100

GARLAND

Downtown Historic District Revitalization Program
Exhibit "D"
Design Guidelines

All submitted applications and projects will be reviewed based on the Downtown Historic District Revitalization Program Design Guidelines, as amended, and the City of Garland's Development Code and Ordinances.

1.01 Purpose. Downtown development is officially governed by Chapter 7 of the Garland Development Code ("GDC"), and all Applications must comply with the Code.

The following development guidelines are intended to work in conjunction with the GDC, serving as additional guidelines for Grant Recipients. Applications will be evaluated and scored according to the degree of adherence to these guidelines.

The purpose of the DHDRP is to attract reinvestment to this special area as a destination and as a historic resource while preserving the unique character of Garland's DHD.

1.02 Goals. The unique and authentic character of the Downtown Historic District ("DHD") helps to establish a sense of place that supports community pride, engagement, and destination marketing efforts. The Grant guidelines seek to establish a balance between supporting progressive economic growth and preserving the historic integrity of structures and the unique character of the overall district. Goals include:

(A) To preserve downtown as a unique and historic resource for the community;
(B) To attract compatible reinvestment to the area;
(C) To encourage the restoration, rehabilitation, adaptive use, and reconstruction of historic buildings;
(D) To protect the National Register of Historic Places designation, which in turn will protect the ability to use economic incentives that are available for eligible buildings from state and federal governments;
(E) To create standards to guide the rehabilitation of the buildings, which encompasses restoration, rehabilitation, adaptive use, and reconstruction, such that the above goals are met and maintained;
(F) To create standards to guide the additions to buildings such that above goals are met and maintained; and
(G) To encourage public art and the expression of modern-day cultural amenities and attractions through temporary installations that do not undermine the long term integrity of historic structures.

1.03 Intent. The intent of the development guidelines is to preserve the buildings and to provide architectural and open space standards that guide the design of alterations to be compatible with the character of the buildings and district. The ability to preserve the downtown is dependent upon an understanding of its unique character and which buildings contribute to that character. The Standards for rehabilitation (including restoration, rehabilitation, adaptive use, and reconstruction) and additions are applicable to the contributing buildings in the district. The Standards also address non-contributing buildings.

The DHD consists of one open space – the Downtown Square – and blocks of buildings surrounding it. The historic significance of the DHD is in the form, scale, materials, and type of building found within the district that serves as a representation of the development of the city of Garland from its inception through the 1960s, after which the downtown ceased to be the primary commercial center for the community. The open square and the concentration of one and two-story masonry commercial buildings establishes an urban environment that is recognizable and historic. The DHD tells the

story of Garland's earliest development through its heyday as the center of the community.

The period of significance for the DHD is therefore from 1897 to 1966. Any building within this period may be restored, rehabilitated, adaptively used, or reconstructed to reflect its appearance during the period of significance.
The architectural form and styles of the buildings within the district reflect one and two-part commercial block buildings as the predominant form and styles that include local vernacular, Late Victorian, Mission/Spanish Colonial Revival, Moderne, and the International style. Many of the original styles of the buildings, particularly those of the Late Victorian style, have been altered over time to "modernize" their appearance. The retention of modernization alterations is at the option of the building owner.

When alterations are proposed to a building in the DHD, the first step is to determine the style and form of the building. If the original style has been altered, the alterations may match that appearance or may be restored to their original appearance. The information here is provided to enable identification of the building's architectural style so that further research can be undertaken to assist an owner in the design of sensitive changes. A list of architectural style guides and dictionaries is provided below.

Form

(1) One-part commercial block buildings consist of a single story treated similarly to the lower façade unit of a two-part commercial block building consisting of storefronts used as display windows for retail with a parapet across the top of the building. The parapet was usually tall enough to allow for occupant signage or advertising and typically included a cornice. Examples of this building form in Garland include the Morrison's Garage building at 620 Main St., M.D. Williams Building at 532 Main St., and the building at 615 W Ave A.

(2) Two-part commercial block building consists of two distinct stacked façade units with a horizontal division that clearly separates the two. The first floor accommodated the more public commercial needs with display windows for the various businesses and the second floor would have been used as office and support spaces or meeting spaces for fraternal organizations. Some of the Garland buildings constructed in this building form are the C.M. Brown building at 614 Main St., Masonic building at 115 N 6th St., IOOF building at 113 N 6th St., and the Garland Fire Station building at 116 S 6th St.

Styles

i. Local Vernacular is designed based on local needs, availability of construction materials, and reflecting local traditions. Often these materials and traditions are simple and utilitarian, without apparent architectural significance; however, this is a character-defining-feature of this style. An example of this style is the Roach Feed & Seed building on Main Street.



***Characteristics*:**
Utilitarian materials
Simple, functional forms

***Address*:**
409 Main St.

ii. Late Victorian was at one time the predominant style in Downtown Garland. Today, it is only represented in a handful of buildings along Main Street and in the reconstructed building at 107 N 6th St. The character-defining- features of this style include the use of brick and sometimes stone accents, decorative and corbelled brick work, particularly along the parapet wall, arched or rectangular window openings, storefronts that maximize the visibility of shops by using large expanses of glass, often with recessed entrances, canopies, and transom windows. Typical dates: 1870 – 1900. A subset of this style is the later, early nineteenth century buildings with Prairie style influences. Typical dates: 1900-1920. Examples of this style include:



***Characteristics*:**
Cast stone accent
Corbelled or decorative brickwork at parapet
Transom window
Flat canopy hung from wall

***Address*:**
107 N 6th St.



Characteristics:
Wood storefront
Stone decoration
Storefront similar to Late Victorian style
Storefront with recessed entry

Address:
610 Main St.

iii. Mission/Spanish Colonial Revival is based upon historical examples of Spanish Colonial architecture and mission designs and includes low relief carvings, arches, columns, decoration confined to entrance surrounds, iron grills and balconies, gates and light fixtures, decorative parapets, and asymmetrical massing. Typical dates: 1915-1940. Example of this style:



Characteristics:
Spanish tile, hipped roof
Brick
Arched or straight openings
Decorative entrance surround
Decorative ironwork

***Address*:**
716 Main St.

iv. Moderne style is sometimes described as a simplification of classical forms with horizontal emphasis found in banding, curved corners, minimal decoration, and modernistic influences within traditional forms. New materials for the era include glass block, structural pigmented glass, metal panels, large plate glass, and patterned glass. Typical dates: 1930 – 1945. Examples of this style:



Characteristics:
Flat roof horizontal banding
Horizontally grouped windows; sometimes wrapped around corner
Modern canopy and fin wall
Minimal decoration at entry door

***Address*:**
116 S 6th St.



Characteristics
Soft curvilinear lines
Glass block
Modernistic simple forms without attached decoration

***Addresses*:**
708 Main St.

v. International Style is designed with flat roofs, smooth, uniform wall surfaces, a lack of ornamentation, simple materials such as brick and metal panels, large expanses of glass, projecting eaves, and canopies. Storefronts may have minimal aluminum mullions. Low ceilings and horizontality are also characteristic. Typical dates: 1920 – 1965. Examples of this style:



Characteristics:
Continuous flat canopies
Large expanse of storefront
Simple form and minimal material palette

***Address*:**
823 Main St.



Characteristics:
Continuous flat canopies
Large expanse of storefront
Simple form and minimal material palette

Address:
500 Main St.

GENERAL STANDARDS

1.04 General

(A) **Application**. The standards in these guidelines apply only to applicants of the Downtown Historic District Façade Improvement Program. Other standards governed by the Garland Development Code (GDC) are applicable as well. A property owner may use the standard "major waiver" process for requirements set forth in the GDC; issuance of the waiver may or may not affect the applicant's grant score, to be determined on a case-by-case basis.

(B) **Standards.** The Standards are defined for the following types of work:

(1) Rehabilitation work consists of restoration, rehabilitation (repair and alterations), and reconstruction of buildings and of contributing properties.
(2) Additions consist of additions to contributing properties.
(3) Non-contributing property work.

(C) **Contributing and Non-contributing properties**. Contributing properties are those that contribute to the sense of place and the character that defines the district; these properties are also listed as contributing in the National Register historic district. Non-contributing buildings are those that fall outside of the period of significance for the district, are not of a characteristic style, or do not have sufficient historic integrity.

The following map defines the contributing and non-contributing buildings in the DHD:



1.05 Land and Building Use.

(A) Flex Space At-Grade is not required.
(B) Recreation and Open Space for Apartments and Condominiums is not required.
(C) Dwelling units are not allowed on the ground floor.
(D) The following uses are allowed in the GDC:
    (1) Furniture and Appliance Cleaning/Repair
    (2) Pet Care/Play Facility (indoor)
    (3) Printing/Publish house
    (4) Veterinary Clinic, Small Animal (indoors only)

1.06 Rehabilitation Standards for Contributing Properties.

(A) **Intent.** The Standards are intended to preserve the historic, character defining features of the contributing properties by retaining as much historic material as possible, by repairing rather than replacing, and by protecting the historic features that give a property its character. Determining what features and materials are historic is the first step of any rehabilitation effort.

The Guidelines prioritize the preservation of building façades that are visible from public streets; these are designated as "protected" façades, including side street façades. Protected façades should be restored, rehabilitated, or reconstructed and should not be altered unless there is a compelling reason to do so or in order to reinstate a historic appearance. Non-protected façades are the remaining façades of the building and where alterations and additions are encouraged in order to preserve the protected façades.

The use of the United States Department of the Interior's National Park Service publications tilted *Preservation Briefs*, the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and the *Secretary of the Interior's Standards for Rehabilitation* are encouraged as a guide for the preservation of contributing properties.

(B) **General.**
    (1) Restore, rehabilitate, and reconstruct building form and materials.
    (2) Preserve non-original alterations that have achieved historic significance in their own right and that fall within the period of significance. A property owner is required to identify the approximate date of features that are proposed to be removed.
    (3) Remove non-original alterations and additions that have not achieved historic significance and restore or reconstruct the design to an earlier or original period. A property owner is required to identify the approximate date of features that are proposed to be removed.
    (4) When restoration or reconstruction is undertaken, use available historic photographs, drawings and other documentation to replicate an earlier or original appearance. If documentation of the earlier or original period is not available, refrain from creating false history and follow the Standards for Additions.
    (5) Repair authentic historic materials wherever possible; replacement materials that match the appearance, material, size, and configuration of the historic materials shall be used when repair is not feasible.
    (6) The historic form of the building to the extent that it is visible from the opposite side of a public street is protected. Refer to Diagram 1.0 for sight lines that shall be used to determine visibility. Additions are limited to one story.

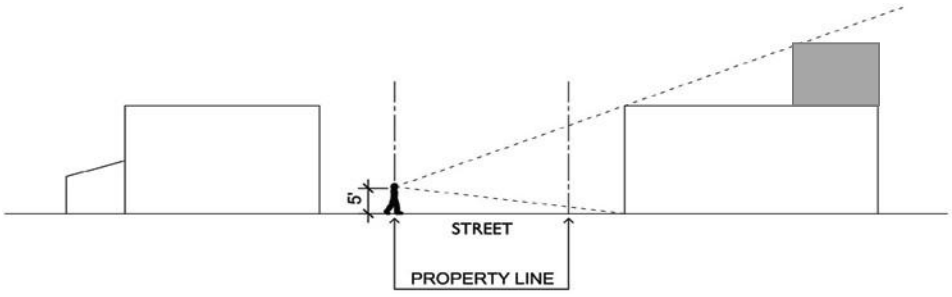


Diagram 1.0: Sight lines used to determine visibility from the opposite side of the street

(7) The historic style of a building is protected. Where the style of a building has been altered, repairs and alterations shall serve to "bring back" the historic style of the building. Therefore, repairs and alterations shall be compatible with the historic style of the building.

(C) **Façade/Storefronts.**

(1) Preserve historic elements, style and materials of the storefront including cornices, display windows, transom windows, spandrels, and knee walls.

(2) Preserve historic recessed entries where they exist, including historic flooring or paving materials within the setback. Recessed entries provide weather protection, protect passing pedestrians from doors that open directly into the public sidewalk and are historic features.

(3) Preserve or incorporate access to the upper story of two-story buildings to encourage use of these upper floor spaces with minimal impact to the historic configuration of the façade or storefront.

(4) Preserve the utilitarian character of the non-protected façades such as exposed party walls and rear walls.

(5) Cleaning of masonry shall be undertaken with the gentlest means possible. Property owners are encouraged to test low pressure water, low pressure water with mild detergents and chemical cleaning products formulated specifically for masonry materials. Sand or grit blasting and other abrasive methods of cleaning is not allowed. Abrasive methods remove the patina and the finish from stone and the "face" of from brick, which affects the performance of these materials.

(6) Repointing of masonry should be undertaken where necessary, not as an entire façade activity (unless determined necessary over the entire façade). Repointing often causes damage to the masonry during removal of the mortar from joints; hand tools should be used to rake out mortar from vertical joints to avoid damage. Mortar used for replacement should match the appearance and the compressive strength of the existing historic clean mortar. For twentieth century buildings, Type N mortar is generally acceptable. However, where lime mortar is present, replacement mortar should have a high lime content similar to that of the historic mortar to ensure its compatibility with the historic masonry material; testing of the mortar is recommended. Incompatible mortar can cause stone and brick to crack. Ready-made gray cement mortars are typically not a good match to historic mortars and shall not be used.

(7) The painting of brick shall not be undertaken unless the brick was previously painted. Painted brick and stone damages the masonry by trapping moisture inside the material and is generally an irreversible action due to the cost of paint removal. Paint removal from historic masonry using chemical stripping products is encouraged but it is recognized that removal can be difficult and typically requires 100% repointing of the mortar joints. Historic painted signs are excluded from this standard.

(D) **Windows and Doors.**

(1) Preserve historic doors, door hardware (where feasible), and windows.

(2) Snap-on window muntin shall not be used. Where divided light windows are proposed, the muntin element shall be used on the inside and outside of the glazing unit.

(3) Decorative ironwork and burglar bars over windows is not allowed.

(4) Tinted, colored, and reflective glass is not allowed except where part of a restoration or reconstruction where special glass was used historically. Films shall not be used on glass unless transparent.

(5) Replacement windows and doors may incorporate insulated glass units provided the other characteristics of the element are maintained. Additional measures for improvement of window performance can be found in the expanded and illustrated *Secretary of the Interior's Standards for Rehabilitation* and in the *Preservation Briefs* series.

(6) Exterior sun screens that cover the entire window are not allowed.

(E) **Roofs**.

(1) Preserve historic roofing that is visible from a public way, including form, material, and configuration.

(2) Preserve historic eaves, soffits, coping, cornices, parapet walls.

(F) **Colors**. Colors consistent with the style of the building or the predominant colors in the district are encouraged. Fluorescent and highly reflective colors shall not be used as the predominant color unless evidence of their historic significance has been documented.

(G) **Canopies and Awnings.**

(1) Preserve historic canopies, awnings, and hardware.

(2) The reconstruction of historic canopies is encouraged.

(3) The use of flat, rigid canopies and canvas awnings of the "drop-front" style are encouraged. "Bubble" style awnings shall not be used.

(H) **Lighting.**

(1) Preserving historic lighting is encouraged.

(2) Lighting the exterior of the building with recessed down lights set within canopies, gooseneck lights, or other lighting consistent with the style of the building is encouraged.

(I) **Site/Landscaping.**

(1) Landscaping shall not obscure views of significant features on protected façades.

(2) Mechanical equipment shall be screened with materials matching the building. If located on the roof, mechanical equipment shall be located out of view from a public way as shown in Diagram 1.0 and screened with a material matching the building or painted to blend into the building.

(3) Outdoor seating areas and patios are encouraged on the street and at the rear of the property.

(J) **Signs.**

(1) Preserving historic signs is encouraged.

(2) Preserving painted historic sign and sign "ghosts" or remnants is encouraged.

(3) Signs shall not cover transoms or other historic features. Historic locations for signs, such as on glass storefronts and on glass in doors, projecting from the façade, hanging, painted on walls, and as part of a canopy or awning system are encouraged. Locate signs so that they relate to architectural features.

1.07 Additions Standards.

(A) **Intent.** The Standards for Additions applies to alterations and additions to contributing properties in the historic district.

It is recognized that changes to and the expansion of historic buildings are a necessary part of a building's evolution. These guidelines are intended to manage that change in a way that protects the architectural character of the district. Additions shall be designed to minimize their impact on the historic design and materials of the main building.

Additions shall be compatible with the main building in massing, size, scale, and material. Whenever possible, new additions to buildings should be done in such a manner that, if removed in the future, the essential form and integrity of the historic building and site would be unimpaired. The Standards are intended to preserve the protected façades of the building facing a public street and side façades facing a public street.

Additions to non-protected façades shall also be appropriate.

(B) **Building Height.**

(1) Height shall be limited to a minimum of one story and a maximum of two stories at the street with a third story at the roof set back a minimum of thirty (30) feet from the street façade or as defined by Diagram 1.0, whichever set back distance is lesser.
(2) The maximum floor to floor height shall not exceed the floor to floor height of the immediately adjacent contributing buildings. Where an adjacent building does not exist or is not historic, the average floor to floor height of the historic buildings on the block face shall be used.

(C) **Architectural Articulation.**

(1) The building form shall correspond to one of the identified historic style forms within the district, including the one-part and two-part commercial form, which is the predominant form. Tri-partite architecture with a distinct base, middle, and top is not required or encouraged.
(2) Articulated parapet walls at the street façade, through the use of corbelled brick, a stepped or other form, and the application of detail or ornament consistent with the style of the building is encouraged.
(3) Canopies and awnings shall be functional, reflect the bay spacing of the building, or be consistent with the style of the building. Canopies and awnings shall extend a minimum of six feet from the building over the sidewalk for at least seventy-five percent of the frontage of the building. Such awning shall maintain a minimum eight-foot clearance over the sidewalk. Lighting and integrated signage is encouraged.

(D) **Residential At-Grade.** Not allowed.

(E) **Residential Above-Grade.** Balconies are not allowed.

(F) **Flex Space At-Grade.** Not allowed.

(G) **Nonresidential Windows and Glazing.**

(1) Window openings shall reflect the bay rhythm of the adjacent or predominant buildings on the block face.
(2) Single light, fixed storefront windows are not allowed as the principal window type but may be used as an accent window and as the ground floor storefront window.
(3) Window size, material, and type shall be compatible with the style of the building.

(H) **Building Entries.** Inset entries are not required but are allowed.

(I) **Roofs.** Building roof materials shall be compatible with the style of the building.

(J) **Exterior Walls.**

(1) EIFS is not allowed.
(2) Glass curtain wall is not allowed.
(3) Other exterior walls that are not visible from a street, plaza, or other public open space shall be constructed of a minimum of 80 percent masonry.
(4) Masonry is defined as a façade material consisting of stone, standard size (not jumbo) brick, terracotta, or cast stone units with mortar joints.
(5) The exterior walls of additions shall incorporate the predominant adjacent wall material.

1.08 Non-contributing Property Standards

(A) **Intent**. The Standards for Non-contributing Properties apply to non-contributing properties within the DHD.

It is recognized that the district includes historic buildings with alterations and additions that have diminished the historic integrity of the original building, as well as buildings built less than 50 years ago and hence not "historic" for the purposes of this district; these properties have been defined as non-contributing to the historic character of the district.

When changes are proposed to a non-contributing property, it is the intent of these Standards to guide these non-contributing properties toward an appropriate design that is consistent with the character of the district.

STYLE RESOURCES

Taken from the U.S. Department of the Interior, National Park Service: ARCHITECTURAL STYLE GUIDES AND DICTIONARIES

These standard architectural guides may indicate if the property you are researching is an example of a recognizable architectural style.

Blumenson, John J.G. *Identifying American Architecture: A Pictorial Guide for Styles and Terms, 1600-1945*. Nashville: American Association for State and Local History, 1981.

Fleming, John, et al. *The Penguin Dictionary of Architecture*. Great Britain: Penguin Books, Ltd., 1966. Foley, Mary Mix. *The American House*. New York: Harper & Row, 1980.
Gottfried, Herbert and Jan Jennings. *American Vernacular Design, 1870-1940*. New York: Van Norstrand Reinhold, 1985.

Gowans, Alan. *Styles and Types of North American Architecture: Social Education and Cultural Expression*. New York: HarperCollins, 1992.

Harris, Cyril M. *Dictionary of Architecture and Construction*. New York: McGraw-Hill, 1975.

_____, ed. *Historic Architecture Sourcebook*. New York: McGraw-Hill, 1977.

McAlester, Virginia and Lee. *A Field Guide to American Houses*. New York: Alfred A. Knopf, 1984. Pevsner, Nicholas et al.

A Dictionary of Architecture. New York: Overlook Press, 1976.

Phillips, Steven J. *Old House Dictionary*. Lakewood, CO: American Source Books, 1989.

Poppeliers, John C.S., et al. *What Style Is It? A Guide to American Architecture*.Washington, D.C.: The Preservation Press, 1983.

Saylor, H.H. *Dictionary of Architecture*. New York: John Wiley & Sons, Inc., 1952.

Whiffen, Marcus. *American Architecture: A Guide to Styles*. Cambridge: The MIT Press, 1969.

Whiffen, Marcus and Frederick Koeper. *American Architecture, 1607-1976*. Cambridge: The MIT Press, 1981. 2 vols.

Secretary of the Interior's Standards for Rehabilitation

All submitted applications and projects will be reviewed based on the Secretary of Interior's Standards for Rehabilitation, as amended, and the City of Garland's Development Code and Ordinances.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

GARLAND

Downtown Historic District Façade Improvement Program
Exhibit "E"
Agreement Form

Please return completed with necessary attachments to the Downtown Coordinator in person or mailed to City of Garland, ATTN: Downtown Coordinator, PO Box 469002, Garland, TX 75046.
If you have any questions, please contact the Downtown Coordinator at (972) 205-2370 or lmcnatt@garlandtx.gov.

Applicant Name / Title	/
Mailing Address	
City, State, Zip	
Phone	
Email	
Historical / Current Building Name	/
Project's Physical Address	

By signing below, the undersigned Applicant ("Applicant") certifies that (i) Applicant has met with staff and has read and fully understands the Downtown Historic District Revitalization Program ("DHDRP") established by the Garland City Council and (ii) if Applicant is awarded a DHDRP Grant, Applicant will comply with all of the restrictions, limitations, terms, conditions, and guidelines of the DHDRP.

- Applicant is the property owner or tenant of the commercial building being considered for a Grant.
- The Applicant will obtain all necessary permits, authorizations, consents, and approvals necessary to complete the proposed improvements including, without limitation, those established or required by the Texas Historical Commission, the U.S. Department of Housing and Urban Development, the U.S. Department of the Interior, and similar agencies, as well as those required by the City.
- The applicant will perform the work or cause the work to be performed in a good and workmanlike manner and cause the work to be promptly completed.
- The Applicant will make the improvements fully available for inspection by the City and other regulatory agencies.
- The Applicant will not materially deviate from the approved plans for the proposed improvements without the express written consent of the City.
- The Applicant authorizes the City to promote the project and property as participating in the DHDRP, including, without limitation, displaying a sign at the building site during and after construction identifying participation in the DHDRP and using photographs, illustrations, and descriptions relating to the project in the City's printed promotional materials, press releases, and websites.
- The Applicant agrees to maintain the in substantially the same condition in which it was constructed upon approval for a period of not less than five years after completion. Applicant agrees that if: (i) any deviation from the approved project without the prior written consent of the City will result in the total forfeiture of the Grant; and/or (ii) if completed in connection with the Grant is altered for any reason without the prior written consent of the City within five (5) years from completion of construction, the Applicant will be required to reimburse the City of Garland immediately for the full amount of the Grant.

- Applicant agrees that all Grant funds awarded to Applicant as part of the DHDRP will be used for the renovation project described in the Application submitted by the Applicant for the purpose of revitalization and preservation of Garland's Downtown Historic District.
- Applicant agrees no in-kind match is allowed. No donations, "sweat equity," or sums paid to any contractor, laborer, or supplier owned directly or indirectly by the Applicant or family member of the Applicant will count towards the Applicant's required match.
- Applicant has not received, nor will receive insurance monies for the revitalization project described in the Application for the DHDRP.

Signature of Applicant	Date

FOR ADMINISTRATIVE USE ONLY:

Date Submitted	Date Reviewed	Downtown Coordinator Signature

GARLAND

Downtown Historic District Revitalization Program
Exhibit "F"
Reimbursement Request Form

Please return completed with necessary attachments and signature to the Downtown Coordinator in person or mailed to City of Garland, ATTN: Downtown Coordinator, PO Box 469002, Garland, TX 75046.
If you have any questions, please contact the Downtown Coordinator at (972) 205-2370 or lmcnatt@garlandtx.gov.

Scan/attach a copy of proof of payment of costs incurred in connection with the Project, including copies of paid invoices, cancelled checks and/or paid credit card receipts, and notarized final lien waivers from all contractors, subcontractors, and suppliers. Keep a copy of all documents for your own records.

Recipient Information	
Recipient Name and Title	
Mailing Address	
City, State, Zip	
Phone	
Email	
Historical/Current Building Name	
Project's Physical Address	

I certify that the expenses listed on the following page(s) were incurred and are being requested for the purpose stated in the Grant Application for the project listed above.

Recipient Signature	Date

FOR ADMINISTRATIVE USE ONLY:

Date Submitted	Date Reviewed	Downtown Coordinator Signature

Receipt Date	Type of Work (Façade rehabilitation, Awning, Signage, Other)	Vendor	Description	Amount
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$
				$

Total Requested: $_____

GARLAND

Downtown Historic District Revitalization Program

Exhibit "G"

Certificate of Compliance

Before me, the undersigned notary, on this day personally appeared _____ *[printed name of affiant]*, a person whose identify is known to me. After I administered an oath to him/her, upon said oath affiant stated:

1. My name is _____ *[printed name of affiant].* I am capable of making this affidavit. The facts stated in this affidavit are within my personal knowledge and are true and correct.

2. I have personal knowledge of the Agreement entered into between the City of Garland, Texas and _____ *[printed name of Grant Recipient]* (the "Grant Recipient"). I read the Agreement and understand the Grant Recipient's obligations and representations therein.

3. I am authorized by the Grant Recipient to make this affidavit on behalf of the Grant Recipient.

4. I am the _____ *[affiant's job position held with the Grant Recipient]*. As such, I have personal knowledge of the Grant Recipient's obligations as it relates to the Agreement.

5. The Grant Recipient has met all of its obligations, conditions, and terms of the Agreement as of the _____ day of _____, 20_____.

_____

Signature of Affiant

Sworn to and subscribed before me by _____ *[name of affiant]* on the _____ day of _____, 20_____.

_____

Notary Public in and for the State of Texas

FAÇADE & SIGN REIMBURSEMENT GRANT PROGRAM

Application Instructions

If you have any downtown grant application questions, please contact the Downtown Development Manager at 512/930-2027. If you have any building or sign permit/historic preservation or design approval questions, please contact the Historic District Planner at 512/930-3581.

The Georgetown Main Street Program is a preservation-driven, economic development organization. We utilize diverse community partners to create a destination downtown for everyone. As a downtown economic incentive, the Georgetown Main Street Program has designed the following façade & sign reimbursement grant program.

FAÇADE & SIGN REIMBURSEMENT GRANT DETAILS *(please read carefully):*

The Georgetown Main Street Façade & Sign Reimbursement Grant Program is set up as a single payment reimbursement to commercial property owners per building/business located in the Downtown Overlay District (see attached map), and in some situations, tenants.

Facade grants are available on a 50/50 matching basis with a cap of $20,000 per grant ($40,000+ total grant project cost) Facade grant funds focus on exterior work on storefronts, roof and foundation work, fire sprinklers or suppression systems, and removal of barriers to public accessibility on commercial buildings and upper story residential buildings (as defined in Section 5.02.020 of the City's Unified Development Code) located in the Downtown Overlay District. (Tax Incentives for Improving Accessibility information, https://www.ada.gov/archive/taxpack.pdf) Only items referenced above are eligible for consideration when the Main Street Advisory Board evaluates a submission.

Sign grants are available on a 50/50 matching basis with a cap of $2,500 per grant ($5,000+ total grant project cost). Grant funds focus on signs which may include signboards, projecting signs and pedestrian signage (includes signage attached to the building such as window/door sign, hanging sign and awning/canopy sign) for commercial buildings located in the Downtown Overlay District.

All sign grants are available throughout the year, on a first come, first serve basis until total funds are depleted. All façade and sign grants are available throughout the year, awarded on a competitively scored criteria system with sliding scale to determine award amount. **No grants will be awarded for work that has already been done or for work that is covered by insurance.** All submitted work will be reviewed based on the Secretary of the Interior's *Standards for Rehabilitation* (see page 6) and approved by the Georgetown Main Street Advisory Board before any eligible work may begin. If awarded a façade or sign reimbursement grant, any deviation from the approved grant project may result in the total or partial withdrawal of the grant.

GRANT APPLICATION PROCESS:

1. ***Determine eligibility:*** Discuss project plans and determine grant eligibility with Downtown Development Manager. If requested, set up an appointment for free design assistance in selecting paint, fabrics, color schemes and/or sign materials for building façade and signs through the Texas Main Street Center's Design Assistance Program. The Downtown Design Guidelines for the Downtown Overlay District should be a reference guide when making any design improvements to properties in the Downtown Overlay District. The Downtown Design Guidelines for the Downtown Overlay District are available from the City of Georgetown Planning office and online at, https://historic.georgetown.org/
2. ***Complete facade & sign reimbursement grant application form and sign the agreement form.*** All grant applications must include a drawing/graphic by the Texas Main Street Architect, the project architect or contractor of the proposed grant work to be done. **Color samples of all final paint selections and/or final fabric or sign color selections must be included with the application to be first approved by the Georgetown Historic and Architectural Review Commission (HARC).** Obtain **itemized** written work estimates on all project work from contractors or project architects. Self-contracted work will be reimbursed for actual legitimate expenses, excluding labor. Digital photos of the building's exterior, interior, roof or foundation where work is to be performed.
3. ***Return the completed grant application form*** with all original itemized work estimates, color samples, drawings and example sign material of the proposed work to the Downtown & Tourism office in City Hall, 808 MLK Jr. no later than 5 p.m. the Thursday prior to the first Friday of each month.
4. ***The grant approval process will include without limitation, the following***:
   - ***(a)*** All façade & sign grant projects must meet current building standards and codes, as well as building permit requirements.
   - ***(b)*** The Georgetown **HARC meets at 6 p.m. every fourth Thursday of the month**, and all grant applicants are required to attend and present their grant reimbursement project to the commission for design review and approval if exterior changes, including new signage are being made.
   - ***(c)*** Notwithstanding anything stated in this grant application to the contrary, final approval for any grant shall be vested in the Main Street Advisory Board.
   - ***(d)*** The Main Street Advisory Board shall consider only grant applications which have been properly and fully completed and which contain all information required in the grant application or requested by HARC or the Main Street Advisory Board.
   - ***(e)*** All construction bids submitted by Applicant must be current and must be dated no earlier than ninety (90) days prior to the application request. Bids shall be submitted on the contractor's or project architect's letterhead and shall contain the contractors name, address, telephone number and shall itemize the bid in a manner that allows the Main Street Advisory Board to determine the bid components and authenticity of the bid.

(f) An Applicant who submits an application that was denied a grant by the Main Street Advisory Board shall not be eligible to re-submit a grant application for six (6) months from the date the prior application was declined by the Main Street Advisory Board.

(g) Applicants receiving approval by the Main Street Advisory Board shall commence construction described within the application within ninety (90) days from the date the grant is awarded by the Main Street Advisory Board. All Applicants must complete the construction described in the Application within one (1) year from the date the grant is approved by the Main Street Advisory Board. **If the Applicant is unable to commence construction within ninety (90) days from the date the grant is approved or complete construction within one (1) year from the date the grant is approved, the Applicant may submit a written request and verbal presentation for an extension for the commencement date or completion date provided the extension request is made prior to the ninety (90) day or one (1) year time limit.** The Main Street Advisory Board shall not be obligated to allow extensions but may do so for good cause determined solely by the Main Street Advisory Board. The extensions, if granted, shall be for the term and for the conditions determined exclusively by the Main Street Advisory Board. An extension denial can not be appealed and shall be final with the Main Street Advisory Board.

(h) As a condition of this grant application and in consideration of the opportunity to apply for a grant, the Applicant consents and shall allow the Main Street Advisory Board to request City inspections to determine the grant, if awarded, shall not be used for construction to any building that is not in compliance with the City Municipal Codes and Ordinances which are applicable to the construction contemplated in the application.

(i) The Applicant, by submission of this application, represents the construction described within the application shall be used in a building which is in compliance with all codes and ordinances.

(j) The Main Street Advisory Board shall have sole discretion in awarding grants, except in cases appealed to and reviewed by the Georgetown City Council. The Main Street Advisory Board shall award grants considering the grant amount requested, grant funds available, the grant program, condition of the building in which the grant funds will be used, effectiveness of the construction, other grant requests, the type and nature of the construction, and the proposed construction results considering the grant program.

(k) No Applicant has a proprietary right to receive grant funds. The Main Street Advisory Board shall consider any application within its discretionary authority to determine what grant amount would be in the best interest of the Grant program. The review criteria may include, but shall not be limited to, compatible architectural design, streetscape objectives, overall redevelopment of the Downtown Overlay District, extended hours, first-floor usage, occupy a vacant or underutilized structure, subject to sales tax, capital expenditures, location and historical property.

(l) The Applicant shall be required to furnish photographs of the building's exterior facade, roof and foundation if relevant part of the application request, and also after the construction is completed, as a condition of final grant reimbursement.

(m) The Applicant is required to obtain all applicable City permits and City approvals required for the construction if a grant is awarded.

(n) No Applicant, nor Applicant agent, representative or tenant shall be entitled to receive a façade grant approval on the same property address if requested within **three (3) years** from the date a previous grant was awarded by the Main Street Advisory Board.

(o) An Applicant should attend and present their grant project at Main Street Advisory Board meetings which consider the application or when requested to do so by the Main Street Advisory Board. **Failure to attend a Main Street Advisory Board meeting when required may be cause for rejection of the application.**

5. ***Reimbursement:*** **When the entire grant project has been satisfactorily completed and reviewed, the applicant shall present the Georgetown Main Street Program office with copies of all paid invoices, including copies of credit card receipts and/or canceled checks, as well as a digital photo of the building's exterior, interior, roof or foundation where work has been performed for a single payment reimbursement of the approved funding**. In addition, the Applicant must complete a City of Georgetown Vendor Form to receive payment from the City.

6. ***Appeal Process***: Any application rejected by the Main Street Advisory Board shall be entitled to review by the Georgetown City Council. The Applicant shall submit a written request for review to the Assistant City Manager no later than ten (10) days from the date the application is denied by the Main Street Advisory Board. The request for review by the Georgetown City Council shall state reasons why the Applicant believes the application was improperly refused by the Main Street Advisory Board and the reasons why the Applicant believes the application should be approved. The written review request shall be furnished by the Assistant City Manager to the Chair of the Main Street Advisory Board. The Chair of the Main Street Advisory Board shall, within ten (10) days of receipt of the Applicant's written request from the Assistant City Manager, furnish to the Assistant City Manager the Main Street Advisory Board reasons for refusing the application and shall state reasons why the application should not be approved by the Georgetown City Council. Review by the Georgetown City Council will be scheduled within the time restraints and business issues of the Georgetown City Council, but in no event later than ninety (90) days from the date the written request for review is received by the Assistant City Manager from the Applicant. The City Council shall review the application and consider the action taken by the Main Street Advisory Board regarding the application. The Georgetown City Council shall not be required to reverse the Main Street Advisory Board unless the Georgetown City Council determines the Main Street Advisory Board did not act in substantial compliance with the application request and applicable policies relating to the Georgetown Façade & Sign Grant Program. The Georgetown City Council determination shall be deemed final action regarding the application.

INCLUSIONS AND EXCLUSIONS TO FAÇADE & SIGN REIMBURSEMENT GRANT PROGRAM

REHABILITATION TIPS:

- Roof, foundation and structural items should be given priority over cosmetic improvements.
- Carefully examine old buildings for termites, wood rot and general deterioration.
- When repairing a building, do not cut expenses on the roof or the foundation.
- Be aware of areas on the roof and at connecting walls where water does not readily drain. Flashing should be installed at intersections to prevent leakage.
- Carefully locate air conditioning units to avoid water condensations on the sides of buildings. Condensing units should be supported from the masonry walls and not placed directly on the roof.
- The top brick cornices that project above the roof deteriorate rapidly unless they are capped with metal, terra cotta, stone or concrete.
- When mortar is missing or in poor repair, moisture will enter the walls and eventually may cause structural damage. Deteriorated mortar should be removed to a depth of at least three-fourths of an inch and replaced with new mortar that matches the old in color, texture, material composition and striking of the joint.
- Do not sandblast or use harsh chemicals to clean exterior facades. Gentle cleaning with water can remove dirt and paint without damaging the surface of the building.
- Do not paint too often; many times a building only needs mild washing.
- If the building has stone or brick that has never been painted, do not create a maintenance problem by painting it.
- Existing architectural details, including old wood doors, windows, ceilings, and trim work add to the character of a building and its resale value. Repair these features rather than remove them.
- Wood windows are designed to be repaired. Frames, sash cords, and other components can be repaired. If the windows are missing, custom-made windows can be ordered for replacement in old buildings.
- Pressed metal ceiling panels are still being manufactured today with some of the same patterns installed originally. Deteriorated panels, therefore, can be replaced exactly.
- Do not use aluminum siding, stucco or other materials that cover the original facade. It can hide water penetration into the walls and accelerate deterioration.
- Before rehabilitating a building façade, take a careful look at the structural aspects of the building. Develop a design that is compatible with neighboring buildings and appropriate for the structures historical development
- Retain a sense of continuity by carrying exterior building design inside the structure.

FAÇADE REIMBURSEMENT GRANT REVIEW PROCESS

Total project scores can range from 0 to 20 points

Recommendations will be based on:

0-10 points	=	**No funding recommendation**
11-20 points	=	**Grant recommendation up to $10,000**
21-30 points	=	**Grant recommendation up to $20,000**

Grant applications will be scored based on criteria below.
Circle appropriate point value and add up for total score.

Extended Hours, past 5 p.m.		**Historic Preservation**	
Yes	2	Non-contributing	1
No	0	Low Priority	3
First Floor Use		Medium Priority	4
Retail/Restaurant	5	High Priority	5
Office	3	**Enhance Historic Significance**	
Residential	0	Yes	3
Occupy Vacant/Underutilized Structure		No	0
Yes, Vacant	3	**Location**	
Underutilized Structure	2	On the Square	1
Rehabilitating, but same use	1	Off the Square	4
CapEx			
> $10,000	0	***Georgetown Contractor Utilized**	
$10,001 - $25,000	1	Georgetown Contractor, 100%	3
$25,001 - $50,000	2	Georgetown Contractor, 50%	1
$50,001 - $75,000	3	Out of area contractor	0
$75,001 - $100,0000	4		
$100,000+	5		
		Total Points	

**Georgetown, within Georgetown City Limits/ETJ*

SIGN REIMBURSEMENT GRANT REVIEW PROCESS

Total project scores can range from 0 to 30 points

Recommendations will be based on:

0-10 points	=	**No funding recommendation**
11-20 points	=	**Grant recommendation up to $1,000**
21-30 points	=	**Grant recommendation up to $2,500**

Grant applications will be scored based on criteria below.
Circle appropriate point value and add up for total score.

Extended Hours, past 5 p.m.	
Yes	4
No	0
First Floor Use	
Retail/Restaurant	5
Office	3
Residential	0
Occupy a Vacant/Underutilized Structure	
Yes	3
Underutilized Structure	2
Rehabilitating, but same use	1
Sales Subject to Sales Tax	
0-50%	0
51-100%	2
CapEx	
> $10,000	1
$10,001 - $25,000	2
$25,001 - $50,000	3
$50,001+	4

Historic Preservation	
Non-contributing	1
Low Priority	3
Medium Priority	4
High Priority	5
Location	
On the Square	1
Off the Square	4
Georgetown Contractor Utilized	
Georgetown Contractor, 100%	3
Georgetown Contractor, 50%	1
Out of area contractor	0

Total Points

Secretary of the Interior's Standards for Rehabilitation

All Façade & Sign Reimbursement Grant applications will be reviewed by the HARC for design appropriateness and approved by the Main Street Advisory Board. The HARC and Main Street Advisory Board will maintain an awareness of the *Standards of Rehabilitation* as follows:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Additional information regarding the Secretary of the Interior's Standards for Rehabilitation is available from the National Park Service, the Texas Historical Commission and the City of Georgetown Planning office.

GEORGETOWN
TEXAS
more than welcome

DEADLINE:
1st Friday
of each month

Date Received:
_____

FAÇADE & SIGN REIMBURSEMENT GRANT PROGRAM PROCESS CHECKLIST

Use this form as a cover sheet and checklist to follow all steps needed to complete the Façade & Sign Reimbursement Grant Program application to receive approval. Please e-mail the completed application with necessary attachments and signatures to the Downtown & Tourism Department: mainstreet@georgetown.org, no later than the THURSDAY prior to the first Friday of each month. If you have any grant application questions, please contact the Downtown Development Director at 512/930-2027. If you have any building or sign permit/historic preservation or design questions, please contact the Historic District Planner at 512/930-3581.

- ❑ Meet with Georgetown Downtown Development Manager (512/930-2027) to determine eligibility and to walk through Façade & Sign Reimbursement Grant and instructions, and to possibly set up appointment for free assistance from the Texas Main Street Center's Design Assistance Program.
- ❑ Meet with the City's Historic District Planner (512/930-3581) if any design work may involve receiving a building or sign permit or dealing with historic preservation and inspection issues.
- ❑ Attend and present grant project to HARC for their design approval. Receive design approval of proposed work listed on grant application. **Get approval signature of the Historic District Planner on last page of application form.**
- ❑ Complete Façade & Sign Reimbursement Grant application form and sign agreement form. (Also include required attachments: color samples of all paint, signage, and fabric awnings, digital photographs of building's exterior, interior, roof or foundation if applicable to grant project)
- ❑ Return completed grant application and agreement form with required attachments **no later than the Thursday prior to the first Friday of the month** to the Georgetown Downtown & Tourism Office at 808 MLK Jr. to be added to the next Main Street Advisory Board meeting agenda.
- ❑ Attend and present Façade & Sign Reimbursement Grant application project at the Main Street Advisory Board meeting for their approval.
- ❑ Façade & Sign Reimbursement Grant project construction may commence immediately after board approval. Grant work on the building must commence within **90 days of approval** from Georgetown Main Street Advisory Board meeting and be completed within **one year**.
- ❑ Upon completion of Façade & Sign Reimbursement Grant project, furnish digital photographs of the building's exterior, interior, roof and foundation if applicable to the grant; copies of all paid invoices, including copies of credit card receipts and/or cancelled checks, to receive a single payment reimbursement of the approved funding. In addition, the applicant must complete a City of Georgetown Vendor Form to receive payment from the City.

GEORGETOWN
TEXAS
more than welcome

Advisory Board Review

Approved_____
Rejected_____
Date_____

FAÇADE & SIGN REIMBURSEMENT GRANT PROGRAM APPLICATION

Please e-mail the completed application with necessary attachments and signatures to the Downtown & Tourism Department: mainstreet@georgetown.org, no later than the THURSDAY before the first Friday of each month. If you have any grant application questions, please contact the Downtown Development Director at 512/930-2027. If you have any building or sign permit/historic preservation questions, contact the Historic District Planner at 512/930-3581.

- Applicant Name_____ Date_____
- Business Name_____
- Mailing Address _____
- Contact Phone_____ Email Address_____
- Building Owner *(if different from applicant)*_____
- Historical/Current Building Name _____
- Physical Building Address_____
- Type of Work: *(check all that apply)*
  Sign ☐ Paint ☐ Masonry cleaning/paint removal ☐ Awning/Canopy ☐ Fire Sprinklers or Suppression Systems ☐
  Uncovering/replacing windows ☐ Roof work ☐ Foundation work ☐ Removal of barriers to public accessibility ☐
  Other: _____
- Details of Planned Improvements for Façade & Sign Reimbursement Grant: *(attach additional information if necessary)*

_____

_____

- How will this project benefit downtown? (Check all that apply)
  Extended business hours ☐ First floor usage ☐ Occupying vacant/underutilized structure ☐ Local Contractor ☐
  Subject to sales tax ☐ Enhance historic significance ☐ Location is on the square ☐ Location is off the square ☐
- List Contractor/Project Architect Proposals and Total Amounts of Eligible Expenses *(attach original proposals)*:

1. _____
2. _____
3. _____

- **TOTAL COST OF PROPOSED GRANT PROJECT (CAPITAL EXPENDITURES):** _____
- **AMOUNT OF FAÇADE AND/OR SIGN GRANT REQUESTED (MAY NOT EXCEED 50% OF TOTAL GRANT COSTS: $2,500 SIGN MAX, $20,000 FACADE MAX):** _____

Include all required color samples of paint fabric canopy, sign design, etc., as well as digital photographs of building's exterior, roof and foundation if applicable to grant.

_____

Applicant's Signature ***Date***

FAÇADE & SIGN REIMBURSEMENT GRANT AGREEMENT FORM

Please e-mail the completed application with necessary attachments and signatures to Downtown & Tourism Department: mainstreet@georgetown.org, no later than the Thursday before the first Friday of each month. If you have any grant application questions, please contact the Downtown Development Manager at 512/930-2027. If you have any historic preservation questions, contact the Historic District Planner at 512/930-3581.

I have met with the Georgetown Downtown Development Manager, and I fully understand the Façade & Sign Reimbursement Grant Procedures and Details established by the Georgetown Main Street Advisory Board. I intend to use this grant program for the aforementioned renovation projects to forward the efforts of the downtown revitalization and historic preservation program known as the Georgetown Main Street Program. I have not received, nor will I receive insurance monies for this revitalization project.

I have read the Façade & Sign Reimbursement Grant Application Procedures including the Façade & Sign Reimbursement Grant Details.

I understand that if I am awarded a Façade & Sign Reimbursement Grant by the Georgetown Main Street Advisory Board, any deviation from the approved project may result in the partial or total withdrawal of the Façade & Sign Reimbursement Grant. If the façade or sign is altered for any reason within **one (1) year** from construction, I may be required to reimburse the City of Georgetown immediately for the full amount of the Façade & Sign Reimbursement Grant.

_____

Business/Organization Name

_____

Applicant's Signature ***Printed Name*** ***Date***

_____

Building Owner's Signature *(if different from applicant)* ***Printed Name*** ***Date***

This section to be completed by City Staff:

_____

Georgetown HARC's Design Approval ***Date***

(obtain signature of Historic District Planner, City Planning staff, or attach approved COA)

_____

Georgetown Main Street Advisory Board's Approval ***Date***

Tax Increment Reinvestment Zone #3 – Downtown Application for Incentives

Date: _____

Applicant Name: _____ Position: _____

Mailing Address: _____

Phone: _____Email: _____

Deadline for Documentation: _____

A.) Programs Applicant Would Like to Apply for:

- ☐ Targeted Vacant Property Improvement
- ☐ Commercial Finish-Out Program
- ☐ Office to Residential Conversion*
- ☐ Rooftop Activation
- ☐ Downtown Living Initiative
- ☐ Streetscape & Safety Improvement Program
- ☐ Project Specific Development Agreement

*Multi-family projects over 5 million may require additional review by the city economic development department

Address of Property: _____

Legal Description: _____

Real Property Account #: _____

Existing Property Use: _____

Title/Contract Holder (If Different from Applicant):_____

Title/Contract Holder Address: _____

Phone: _____ Email: _____

B.) Project Information:

- ☐ New Structure (Undeveloped)
- ☐ New Structure (Demo of Existing)
- ☐ Renovation/Historic Rehab
- ☐ Conversion

Proposed Occupancy: ☐ Owner-Occupied ☐ Rental

Property Needs: ☐ Re-Zoning ☐ Re-Platting ☐ Infrastructure Connections

Project Title: _____

Current Assessed Property Value: _____Proposed Investment: _____

Purchase Price: _____ Sq. Ft Land/Improvements: _____

Estimated Start Date: _____ Completion Date: _____

Have you received a grant from TIRZ #3 or the DMD before? _____

Number of Jobs that will be created: _____

SCOPE OF WORK:

Streetscape & Safety Program *Select all that apply to project

- ☐ Awning
- ☐ Concrete Work/ Sidewalk Repair
- ☐ Decorative Fence Installation (No chain link)
- ☐ Design & Permit fees
- ☐ Door Replacement
- ☐ Exterior Cleaning
- ☐ Exterior Electrical Repair
- ☐ Exterior Lighting*
- ☐ Exterior Paint / Finish Repair*
- ☐ Gutters*
- ☐ Landscaping
- ☐ Mural
- ☐ Parking Lot
- ☐ Roof
- ☐ Sidewalk Café/ Patio Improvements
- ☐ Signage
- ☐ Surveillance Cameras & Systems
- ☐ Window Replacement & Repair
- ☐ Window Display
- ☐ Demo

*Gutters only qualify for properties facing main streets.
*Walls cannot be painted black or grey
*Surveillance cameras must be at least 1080p with 10fpsr infrared capability of 15+ ft. Surveillance systems must have recording capability. Exterior lighting & surveillance cameras/systems are required for Streetscape & Safety.

Commercial Finish Out Program

*Select all that apply to project

- ☐ Flooring and Wall Upgrades
- ☐ Paint
- ☐ Fixtures
- ☐ MEP
- ☐ HVAC
- ☐ Carpentry
- ☐ Kitchen Equipment
- ☐ Countertops
- ☐ Demo
- ☐ Permits/ Design Fees

Rooftop Activation Program

*Select all that apply to project

- ☐ Flooring and Wall Upgrad
- ☐ Security cameras
- ☐ Signage
- ☐ MEP
- ☐ Bar Build Out
- ☐ Roof Repair
- ☐ Structural Roof Support
- ☐ Rooftop Safety
- ☐ Permanent Seating
- ☐ Lighting
- ☐ Restrooms
- ☐ Shade Structures
- ☐ Rooftop Accessibility (Elevators and Stairs)
- ☐ Enclosed Landings, Windows, Doors
- ☐ Permits and Design Fees

C.) Checklist of Required Attachments *(Incomplete Applications Will Not Be Considered):*

- ☐ (A) Business Plan
- ☐ (B) Project Scope and Timeline
- ☐ (C) Current Photos of Property
- ☐ (D) Project Renderings and Drawings
- ☐ (E) Project Costs and Uses of Funding
- ☐ (F) Deed or Lease Agreement
- ☐ (G) Project Financing
- ☐ (H) Summary of Consultants or Contractors
- ☐ *(I)* W-9 for Payee *(Can be deferred, but must be provided prior to execution of Contract)*

*See Checklist Example Guide for more information regarding the required attachments.
*Bars are required to provide food and Non-Alcoholic beverage options for patrons.
*General Contractors are required to submit two bids for sub-contracted work. Projects not requiring a General Contractor will need to submit two bids for scope of work.

D.) CERTIFICATION

I hereby certify that I am authorized to sign the incentive application and the information contained in the application is true and correct to the best of my knowledge. I understand and certify that I have read the policy guidelines for each policy in which I am applying for and am familiar with the provisions contained therein. I also understand that all attachments are correct and that false information will disqualify this application.

I hereby warrant that all construction will be in accordance with the City of Corpus Christi Building Codes; **work will not commence on items eligible for reimbursement until an agreement has been approved by the Board of Directors of the TIRZ #3 Zone.** To the best of my knowledge, no member of the Board or employee of the Downtown Management District or City of Corpus Christi would have any financial interest, direct or indirect, in any assistance provided for this project.

Signature: _____ Date: _____

Construction plans must be submitted (not pulled) to Development Services prior to TIRZ Application submittal. An SBDC advisor meeting is now required for all potential TIRZ recipients prior to application submittal. Upon receipt of this application, the DMD may require additional financial and other information as necessary for evaluating the project. Incomplete applications will not be accepted. **Official submittal must be emailed to Jenny@cctexasdmd.com and Gabriella@cctexasdmd.com as individual PDF documents.**

For Internal Use Only:

Received by Downtown Management District: _____Date: _____

Project Manager Assigned: _____

Requirements for Well-Designed Urban Developments

To qualify for any of the TIRZ #3 Incentives, projects must meet the following requirements. Additional requirements for the Downtown Living Initiative can be found on the ***Downtown Living Initiative Guidelines.***

- Building Setback. Zero-foot setbacks are preferred. Six-foot setback may be allowed if the right of way is insufficient. Additional setback may be allowed for outdoor cafés, balconies, plazas, etc. [See Figure 1].
- Ground Floor. The ground floor shall be active, inviting, engaging and easily accessible from the street. For commercial ground floor uses, clear, energy efficient windows are preferred to allow pedestrians to see into the businesses.
- Canopies/Awnings. Developments shall have canopies or awnings to provide architectural interest and to shield pedestrians from weather and the elements.
- Signage. Pedestrian oriented designs, like hanging signs, blade signs and signs with channel letter are required. All signs shall incorporate appropriate lighting.
- Parking. Off-street parking (structures and lots) must be visually appealing and integrated with the building's design, screened with architectural and landscape elements. Cars must not be visible from the street. For new construction that includes a surface lot, the building frontage must have zero setback adjacent to higher traffic streets, with parking in the rear [See Figure 2]. Access to new lots should be through side-streets or alleyways. All parking areas must be paved, striped and lighted.
- Sidewalks. Site owners will be required to install sidewalks in locations that currently do not have any installed. The sidewalk must comply with all standards set by the ADA and should accommodate landscaping, street furniture and sidewalk cafés.



Figure 1: Outdoor Cafe

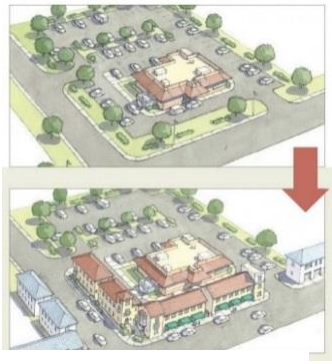


Figure 2: Parking should have minimal visual street presence

1. Landscape. Planting zones shall include irrigated street trees, other landscaping, and street furniture. New buildings must have at least one tree for every 25 ft. of building frontage. Landscape areas should be designed to maximize tree canopy [See Figure 3]. *Note: Palm trees are not considered shade maximizing street trees*.
2. Lighting. Lamp fixtures shall be installed on street walls to create well-lit sidewalks and ensure the safety of people using the space. Nocturnal architecture is strongly encouraged. Average foot candles of 1-3, with 0.5 to 6 at ground level.
3. Street Wall. Blank walls cannot extend more than 10 feet. Wall space facing the street must be active, meaning the space should contain a mix of uses that will encourage use both day and night. Alternatives to blank walls include light features, windows, architectural features, and public art. Maintaining an active space will ensure livable streets and strengthen the downtown economy.
4. Underground Utilities. Where underground utilities exist, they should remain underground. New projects should include underground utilities in design.
5. Exterior Utility Service. Exterior utility service such as dumpsters, transformers, electrical boxes, and other utility elements must be concealed from public view.



Figure 3: Streetscape should maximize tree canopy.

The Board retains the ability to alter requirements specified under these standards for individual projects. Applicant can request consideration of alternative design solutions to achieve intended goals. Designs must adhere to the Coding and Zoning requirements from the City of Corpus Christi.

Attachment A

Operating Cash Flow

Revenues	Y1	Y2	Y3	Y4	Y5
Gross Residential Rent					
Gross Commercial Rent					
Commercial Tenant Contributions					
+ Other Income					
= GROSS INCOME					
- Vacancy Residential					
- Vacancy Commercial					
= Effective Gross Rent					
Expenses					
Operating Expenses					
Property Taxes					
Payroll					
Other					
Reserve Deposits					
- TOTAL EXPENSES					
= Net Operating Income					
Debt Service					
Loan #1					
Loan #2					
- Total Debt Service					
= CASH FLOW					

Attachment E

Sources & Uses of Funding			
Fill out what is applicable*			
Project Costs			**Totals**
Acquisition	Acquisition - Building Portion		
	Acquisiting - Land Portion		
			$ -
Site Work	On-site		
	Off-site (steets, curbs, gutters)		
			$ -
Rehabilitation /Construction	New Construction Costs		
	Rehabilitation Costs		
	Contingency (10%)		
	Fees & Permits		
			$ -
Furniture, Fixtures, Equipment	Furniture, Fixtures, Equipment		
			$ -
Professional Fees	Architect Fees		
	Engineering		
	Attorney / Real Estate		
	Consulting		
	Environmental		
	Appraisals		
			$ -
Developer Fees	Developer Fees		
	General Partner		
			$ -
Interim Costs			
	Construction Interest		
	Construction Loan Fee		
	Insurance. Title		
	Taxes		
			$ -
Project Reserves	Replacement Reserves		
	Other		
			$ -
Start Up Costs			
	Inventory / Permanent Working Capital		
	Marketing		
			$ -
Total Uses			**$ -**
Project Sources			Total
Equity	Owners Equity		
	Investors		
			$ -
Loans	Loan #1		
	Loan #2		
			$ -
Total Sources			$ -

Downtown Reinvestment Grant Discussion

Kristen Pulido, Main Street Program Manager
Office of Economic Development
January 28, 2026

Purpose

City of Denton, Texas

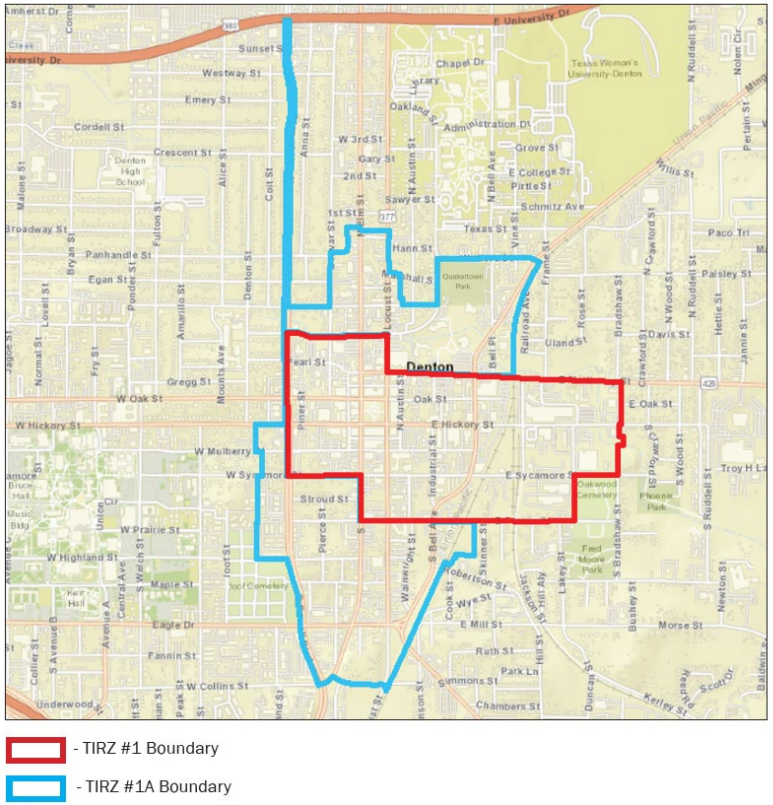
- Objectives:
  - Ensure competitiveness with peer cities
  - Better support Downtown Businesses
- What board is being asked to do:
  - Provide feedback
  - Identify next steps for refinement
    - Historic preservation incentive structure
    - Scoring criteria and timelines
    - Project categories
    - Align grant structure with current budget



Overview of current grant

City of Denton, Texas

- Goal of the Downtown Reinvestment Grant:
  - Promote desired development/redevelopment in the Tax Increment Reinvestment Zone 1.
- Last policy update 2021.



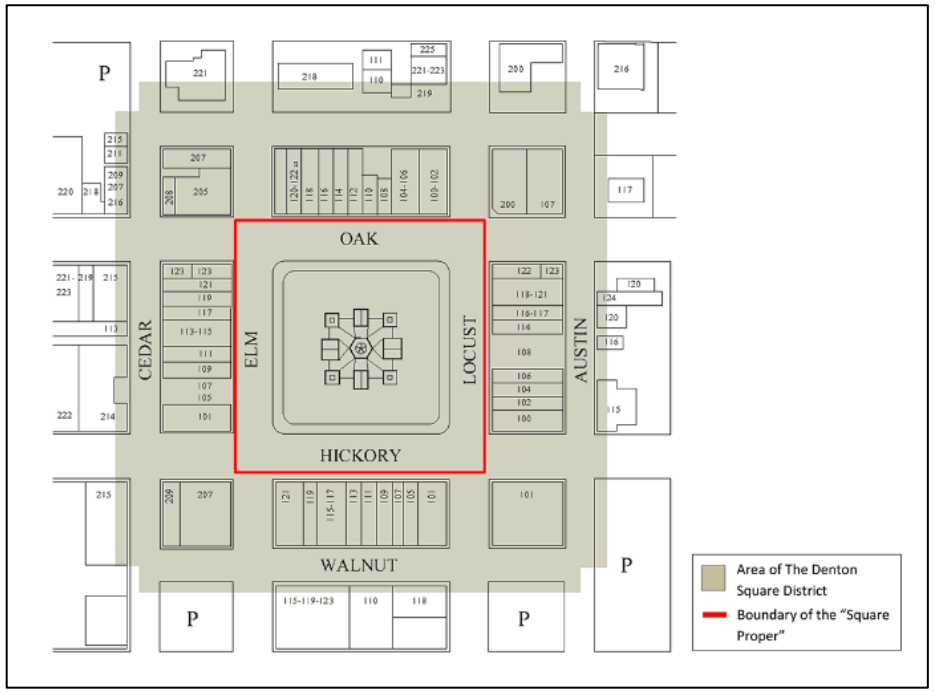
Grant Comparison - Garland

City of Denton, Texas

Garland



Denton



**Not TIRZ boundary but district is within the TIRZ

Grant Comparison – Historic Preservation

City of Denton, Texas

	Garland	Denton
	Downtown Historic District Revitalization Program	***Downtown Reinvestment Grant***
Eligibility	Only businesses/buildings within the National Register Historic District	Businesses/buildings within TIRZ 1 & 1A Boundary
Projects	Sidewalk repair and/or paving; parking lots and or paving; landscaping	*Does not offer exterior work in grant
Grant Limits	50% match reimbursement with no cap	*Limited to a 50% match with a cap of $50,000
Reimbursement Requirement	Applicant must not owe any outstanding past due property taxes, judgements, fees for code violations, or any other debts to the City that are past due.	DRG does not follow this requirement

*Excludes Signs, Awnings, and Paint - Downtown-Revitalization-Program-Packet-pdf

Grant Comparison- Scoring Criteria

City of Denton, Texas

	Georgetown	Denton
	Façade and Sign Reimbursement	***Downtown Reinvestment Grant***
Eligibility	Businesses/Buildings within the TIRZ	Businesses/Buildings within TIRZ 1 & 1A
Projects	Same project categories as Denton	
Grant Limits	Sign: 50% match with a cap of $2500; Façade: 50% match with a cap of $20,000	Limited to a 50% match with a cap of $50,000
Scoring	Extended Hours, past 5 pm	Increases Population
	Occupy Vacant/Underutilized Structure	Other
	Capital Investment	Economic Impact
	Historic Preservation	Historic Accuracy
	Enhance Historic Significance	Historic Accuracy
	Location	Increases Population
	Local contractor used	n/a
	Sales subject to Sales Tax	n/a

*Link to Georgetown's Grant Application for Main Street

Grant Comparison - Incentives

City of Denton, Texas

	Corpus Christi	Incentive
Eligibility	Businesses/buildings within the TIRZ #3 Boundary	
Projects	Commercial Finish Out	Up to $10 per sq.ft/Additional incentive for Landlord or tenant: Up to 50% reimbursement ($20,000 limit) for MEP, Environmental, Remediation, or Structure ***If landlord, tenant must receive a 6-month rent abatement
	Targeting Vacant Property Improvement Grant	Up to 50/50 Reimbursement Grant (no cap)
	Downtown Living Initiative (3+ unit Development)	Up to $30,000 rebate per multi-family unit
	Project Specific Development Agreement (Environmental Remediation, Code Compliance, Historic Preservation, Structured Parking, Urban Design, Public Improvements/Utilities, Residential Developments 10+units)	Up to 75% of the Tax Increment for up to 10yrs
	Streetscape and Safety Improvement (Exterior Lights & Cameras, Awning Signage, Landscaping, Exterior Cleaning/Paint/Murals, Sidewalk Repair/Sidewalk Café, Design/Permit Fees	Up to 50/50 Reimbursement Grant (no cap)
	Targeted Office to Residential Conversion (MEP, Elevator, Parking Garage that includes portion for Public Parking, Residential Developments 25+ units)	Up to 50/50 Reimbursement Grant (no cap)

*Prioritize Economic Development Strategies as well as goals of the Design Downtown Plan - Downtown Incentives (TIRZ #3) | Do Business | Downtown Corpus Christi

DRG Business Feedback

City of Denton, Texas

Key themes:

- Financial barriers (match requirements, reimbursement timing, will funding run out?)
  - Budget for grant
- Business owner vs property owner applying for grant…
  Ex. Rose Costumes
  - 4E Design Downtown Plan: Modify and Expand on Economic Development Tools
- Need for support with build out, façade, and code compliance
- Cost of Fire Suppression
- Oversubscription
- From a recruitment prospect: “We then lean on the city to contribute to buildout, equipment and other associated costs with opening our business. Saying that out loud feels a little forward, but every location that has been successful for us was fueled by a city or municipality to take the financial burden off us. So that essentially drives our expansion and, in a way, forces us to grow."

Downtown Reinvestment Grants

Downtown Reinvestment Grants, funded by the TIRZ, have benefited a few Downtown businesses seeking façade improvements and utility upgrades. In some cases, however, a grant to a property owner has prevented the city from providing another grant to a tenant business on the same property. With expanded TIRZ funding, the City should re-evaluate current TIRZ policies and proactively target catalyst projects.

Historic/Current DRG Usage

City of Denton, Texas

Downtown Reinvestment Grant Usage			
	Applications	***Approved***	***Amount***
2021/2022	3	3	$51,07.02
2022/2023	4	4	$122,500
2023/2024	4	4	$152,011
2024/2025	3	3	$135,000

FY 25/26 Downtown Reinvestment Grant Pipeline Stage		
Status	***Total***	***Est. Amount Awarded***
Application Review	4	$160,000
Awaiting Application	12	$472,500
Leads	4	$225,000
TOTAL		**$857,500**

DRG 25/26 Projections

City of Denton, Texas

Projected 25/26 Tax Increment Reinvestment Zone Number One Grants			
Phase	***Owner/Business***	***Address***	***Requested Amount***
TIRZ 1	Fine Arts Theater of Denton, LLC	115-116 N. Elm St.	$50,000
TIRZ 1	West Oak Coffee Bar	114 W. Oak St.	$50,000
TIRZ 1	West Oak Coffee Bar	114. W. Oak St.	$50,000
DEDC	TBA	TBA	$10,000
DEDC	TBA	TBA	$50,000
DEDC	TBA	TBA	$50,000
		TOTAL	**$260,000**
		FY 25/26 Grant Budget	***$200,000***
		Est. Fund Balance	***($60,000)***

Downtown Priorities

City of Denton, Texas

- Economic Development Strategic Plan
  - Goal 1: Accelerate Recovery
    - 1.3.5. Prioritize business retention efforts based on strategic growth areas, employer size, employer growth, and lease terminations.
  - Goal 2: Foster Growth
    - 2A.2. Attract new investment. Recruiting new businesses should remain a top priority for the City's Economic Development Department team.
    - 2A.3.4. Provide public infrastructure incentives (such as credits or reimbursements) for projects aligned to Denton's growth areas.
- Design Downtown Plan
  - 3: Target Development to Build on Downtown's Character and Assets
    - 3B: Encourage Downtown Living
    - 3E: Explore Opportunities for Transformative Projects
      - Public or Shared Parking, Hotel, Music and Art Venues
  - 4C: Expand Programs to Support Small Businesses
    - Expand the use of the Downtown Reinvestment Grants
      - The City should proactively identify locations and business sectors to assist.
- Results from Slido Survey 1.22.25 TIRZ 1 Mtg
  - Priority funding for:
    - Local Businesses
    - Cultural/experimental uses
    - Historic Properties
    - Recruitment





Next Steps

- Discussion
  - Historic preservation incentive structure
  - Scoring criteria and timelines
  - Project categories
  - Align grant structure with current budget



Slido Survey

Questions?

City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: **Economic Development**

ACM: **Christine Taylor**

DATE: **January 28, 2026**

SUBJECT

Receive a report and hold a discussion regarding Section 2.83(c) of the City Code which governs boards, commissions, and committees specifically related to the attendance policy.

BACKGROUND

To align the Economic Development boards with other City of Denton boards, commissions, and committees, the TIRZ 1 follows the attendance policies of the City's Code of Ordinances. Specifically, reporting absences and tracking the attendance of each board member.

The attendance policy for City of Denton boards, commissions, and committees is governed by Section 2.83(c) of the Code of Ordinances. The Code states that members shall attend regularly scheduled meetings and must contact staff prior to the meeting if they are unable to attend. Absences can be excused for the following reasons:

- Personal or family illness
- Death of a family member
- Jury duty
- Service in the armed forces
- Testifying before the legislature
- Attending a seminar involving municipal matters of importance to the member's duties
- An absence necessary for the member's business or employment

If the absences do not meet one of the criteria above, then the member has the ability to request the absence be excused by City Council or leave the absence as unexcused. An unexcused absence of a member for more than three meetings in a year or 50 percent of regular meetings in a year shall be considered cause for removal from the board by City Council. The City Secretary is required to report board attendance to City Council quarterly.

In order to follow City procedures, TIRZ 1 Members are required to notify staff prior to the meeting if they will be absent and complete the online Board Member Notification of Absence Form up to 10 business days after the meeting.

EXHIBITS

Exhibit 1 – Agenda Information Sheet
Exhibit 2 – Attendance Presentation
Exhibit 3 – TIRZ 1 Attendance Chart

Respectfully submitted:
Vanessa Esparza
Administrative Assistant



Attendance Policy

Vanessa Esparza – Board Secretary

TIF26-007
January 28, 2026
Tax Increment Reinvestment Zone Number One Board

CITY OF DENTON

Board Attendance Policy

- Originally adopted in 1966 and expanded for additional excused absences in 2000 and modified in 2020 to include procedures for absences.
- Every board member shall attend regularly scheduled meetings.
- Members unable to attend shall notify the Chair or staff prior to the meeting.
- Cause for removal:
  - Unexcused absences of **more than 3 or 50% of meetings;**
  - Regularly scheduled meetings; and
  - In any one year.

Excused Absences

- Personal or family illness
- Death of a family member
- Jury duty
- Service in the armed forces
- Testifying before the legislature
- Attending a seminar involving municipal matters of importance to the member's duties
- An absence necessary for the member's business or employment

Procedure

- If a Board Member knows they will be unable to attend a meeting:
  - Notify the Board Secretary or Staff; and
  - Fill out the online Notification of Absence Form before the 10th business day deadline after the meeting has occurred.
  - If unexcused, the Board Member can:
    - Leave as unexcused.
    - Request the absence come before the City Council for consideration to excuse.

Procedure Update

Online Notification of Absence Submission Form launched on May 20th, 2025.

Please remember:

- Each meeting/absence will require a separate submission.
- To use your cityofdenton.com email (preferred).
- If the reason for your absence is "Other", select “Yes” if you would you like the City Secretary to submit a request to the City Council to excuse your absence. Otherwise, it will remain unexcused.
- Upon submission of your notice of absence, you will receive a response from the City of Denton City Secretary’s Office via Smartsheet regarding your absence.

For more details, the Attendance Policy is in your EDPB Member Packet for reference.

Questions?

City of Denton City Secretary's Office
CitySecretary@cityofdenton.com
(940) 349-8309

Vanessa Esparza
Vanessa.Esparza@cityofdenton.com
(940) 349-8100

Tax Increment Reinvestment Zone Number One (TIRZ 1) Attendance Tracking Report

Dates Covered: *January 2025- December 2025* **Submitted by:** *Vanessa Esparza Phone #8100*

PLACE NO.	MEMBER NAME													
	Last Name	First Name	1/22/2025	3/26/2025	5/28/2025	7/23/2025 - CANCELLED	9/24/2025	11/19/2025 CANCELLED	TOTALS	PRESENT	EXCUSED	UNEXCUSED	TOTAL MEETINGS	% PRESENT
1	*Abasolo*	*Daniel*	*Unexcused*	*Present*	*Excused*		*Present*			*2*	*1*	*1*	*4*	*50%*
2	*Beck*	*Brian*	*Present*	*Present*	*Present*		*Present*			*4*	*0*	*0*	*4*	*100%*
3	*Brakefield*	*Taylor*	*Present*	*Present*	*Unexcused*		*Present*			*3*	*0*	*1*	*4*	*75%*
4	*Holland*	*Joe*					*Excused*			*0*	*1*	*0*	*4*	*0%*
5	*Johnson*	*Suzanne*	*Unexcused*	*Present*	*Present*		*Unexcused*			*2*	*0*	*2*	*4*	*50%*
6	*Reinke Doyle*	*Marybeth*	*Present*	*Present*	*Present*		*Present*			*4*	*0*	*0*	*4*	*100%*
7	*Stoltzfus*	*Tim*	*Present*	*Present*	*Present*		*Present*			*4*	*0*	*0*	*4*	*100%*

City of Denton

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AGENDA INFORMATION SHEET

DEPARTMENT: **Economic Development**

ACM: **Christine Taylor**

DATE: **January 28, 2026**

SUBJECT

Staff Reports:

1. Future Agenda Items – Brittany Sotelo

BACKGROUND

Future Agenda Items:

Receive a report and hold a discussion regarding an overview of current items in the Agenda Queue and discussion of possible future agenda items.

EXHIBITS

Exhibit 1 – Agenda Information Sheet
Exhibit 2 – Future Agenda Items

Respectfully Submitted:
Matilda Weeden
Economic Development Specialist

Meeting Date	Item Description	Presented By
Wednesday, January 28, 2026		
IC - Items for Consideration	Approval of Minutes	Chair
IC - Items for Consideration	Approval of 2026 Calendar	
IC - Items for Consideration	Downtown Reinvestment Grant - Fine Arts Fire Suppression	Kristen Pulido
IC - Items for Consideration	Interior Reno/Utility Upgrades	Kristen Pulido
IC - Items for Consideration	Suppression	Kristen Pulido
WS - Work Session	Review Downtown Reinvestment Grant Policy	Kristen Pulido
WS - Work Session	Attendance Presentation	Vanessa Esparza
WS - Staff Report	Future Agenda Items	Brittany Sotelo
		Total Time
Wednesday, March 25, 2026		
IC - Items for Consideration	Approval of Minutes	Chair
WS - Staff Report	Future Agenda Items	Brittany Sotelo
		Total Time
Wednesday, May 27, 2026		
IC - Items for Consideration	Approval of Minutes	Chair
WS - Staff Report	Future Agenda Items	Brittany Sotelo
		Total Time
Wednesday, July 22, 2026		
IC - Items for Consideration	Approval of Minutes	Chair
WS - Staff Report	Future Agenda Items	Brittany Sotelo
		Total Time
Wednesday, September 23, 2026		
IC - Items for Consideration	Approval of Minutes	Chair
WS - Staff Report	Future Agenda Items	Brittany Sotelo
		Total Time
Wednesday, November 18, 2026		
IC - Items for Consideration	Approval of Minutes	Chair
IC - Items for Consideration	Approval of 2027 Calendar	Kristen Pulido
WS - Staff Report	Future Agenda Items	Brittany Sotelo
Wednesday, January 27, 2027		
IC - Items for Consideration	Approval of Minutes	Chair
WS - Staff Report	Future Agenda Items	Brittany Sotelo
		Total Time