

AGENDA
CITY OF ST. CHARLES
PLANNING & DEVELOPMENT COMMITTEE
ALD. TODD BANCROFT – CHAIRMAN
MONDAY, MARCH 14, 2016 - 7:00 PM
CITY COUNCIL CHAMBERS
2 E. MAIN STREET

- 1. CALL TO ORDER**
- 2. ROLL CALL**
- 3. COMMUNITY & ECONOMIC DEVELOPMENT**
 - a. Presentation regarding Community Land Trusts and proposed exploratory process for creating a Community Land Trust.
 - b. Recommendation to approve Engineering Proposals for Prairie Center.
 1. Stormwater Report Review and Final Engineering Assistance by WBK Engineering
 2. Sanitary Sewer Evaluation by WBK Engineering
 3. Watermain Modeling by Trotter and Associates
 4. Traffic Impact Study by Hampton, Lenzini and Renwick
 - c. Recommendation to approve and execute a release and reimbursement agreement between the City and 1500 Lincoln Highway LLC.
 - d. Recommendation to approve a Downtown Economic Business Incentive Award for 320 W. Main Street (Two Wild Seeds Bakery).
 - e. Recommendation to approve the adoption of revised Building and Fire Codes.
- 4. ADDITIONAL BUSINESS**
- 5. EXECUTIVE SESSION**
 - Personnel 5 ILCS 120/2(c)(2), 5 ILCS 120/2(c)(5)
 - Pending Litigation 5 ILCS 120/2(c)(4)
 - Probable or Imminent Litigation 5 ILCS 120/2(c)(4)
 - Property Acquisition 5 ILCS 120/2(c)(3)
 - Collective Bargaining 5 ILCS 120/2(c)(1)
 - Review of Minutes of Executive Sessions 5 ILCS 120/2(c)(14)
- 6. ADDITIONAL ITEMS FROM MAYOR, COUNCIL, STAFF OR CITIZENS.**
- 7. ADJOURNMENT**



AGENDA ITEM EXECUTIVE SUMMARY

Title:	Presentation regarding Community Land Trusts and proposed exploratory process for creating a Community Land Trust
Presenter(s):	Rita Tungare Betsy Lassar, Business and Professional People for the Public Interest

Please check appropriate box:

	Government Operations		Government Services
X	Planning & Development (3/14/16)		City Council

Estimated Cost:	Total cost: \$12,000 St. Charles' portion if two other communities participate: \$4,000	Budgeted:	YES		NO	X
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If NO, please explain how item will be funded: St. Charles' portion of cost is proposed in FY 16-17 budget.

Executive Summary:

The City adopted the *Homes for a Changing Region* plan as a policy document in November 2014. The four communities that partnered on the *Homes* plan – St. Charles, Geneva, Batavia, and North Aurora – are continuing to work together on implementation of the plan's recommendations. One of these recommendations is to consider collaborating on the creation of a Community Land Trust (CLT). A CLT is an organization that provides affordable housing opportunities to the community.

In January, staff from the four partner communities, Mayor Rogina, and Ald. Payleitner met with Betsy Lassar, policy analyst with Business and Professional People for the Public Interest (BPI), to discuss an exploratory process Ms. Lassar is proposing that will look into the feasibility of creating a Fox Valley CLT. Over the next few weeks, each community will consider whether to participate in this exploratory process for creating a CLT.

Tonight, Ms. Lassar will make a presentation to explain the CLT model and the proposed exploratory process for creating a Fox Valley CLT. Elected officials from the other partner communities may attend this presentation to hear the information, as well.

The presentation is for informational purposes; however staff would like feedback on whether the City should participate in the proposed exploratory process for creating a Fox Valley CLT.

The Housing Commission has expressed strong support for embarking on this exploratory process.

Attachments: *(please list)*

Recommendation / Suggested Action *(briefly explain):*

Presentation regarding Community Land Trusts and proposed exploratory process for creating a Community Land Trust.

Provide feedback on whether the City should participate in the proposed exploratory process for creating a Community Land Trust.

<i>For office use only:</i>	<i>Agenda Item Number: 3a</i>
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AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve Engineering Proposals for Prairie Center. <ol style="list-style-type: none"> 1. Stormwater Report Review and Final Engineering Assistance by WBK Engineering 2. Sanitary Sewer Evaluation by WBK Engineering 3. Watermain Modeling by Trotter and Associates 4. Traffic Impact Study by Hampton, Lenzini and Renwick
Presenter:	Chris Bong, P.E.

Please check appropriate box:

	Government Operations		Government Services
X	Planning & Development (3/14/16)		City Council

Estimated Cost:	\$72,588.96 (Developer Reimbursable)	Budgeted:	YES		NO	X
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If NO, please explain how item will be funded:

Executive Summary:

Shodeen Inc. presented a Concept Plan for the Prairie Center project on January 11, 2016. They are currently working on revising the plans, but no formal application has been submitted. Shodeen has asked Staff to move forward with collecting all necessary proposals for engineering studies. It is anticipated that these will be developer reimbursable contracts managed by the City. Studies will not be initiated until a formal plan is provided.

It is our goal to reach a consensus on the appropriate scope of these studies so the engineering work can begin in earnest. Below are scope summaries and attached are the actual proposals:

Stormwater Report Review and Final Engineering Assistance by WBK Engineering (not to exceed \$8,500)

This work includes a review of the stormwater permit application and all drainage calculations for conformance with the Stormwater Ordinance and overall engineering. The proposal also includes assistance with general engineering plan review questions on an as needed basis. This analysis will include reassessing the capacity of the existing 14th Street detention basin.

Sanitary Sewer Evaluation by WBK Engineering (not to exceed \$17,850)

The Consultant will be evaluating the suitability of the existing downstream wastewater collection infrastructure to support the proposed development. It is anticipated that the flows will follow the preferred Gray Street to Park Shore Siphon path that was recommended during the previous analysis. This will allow for the existing flows from the old mall and adjacent commercial buildings to be re-routed so that it bypasses known problem areas near Fellows Street. All necessary improvements will be identified and costs developed.

Watermain Modeling by Trotter and Associates (not to exceed \$4,300)

A computer model will be produced to analyze the proposed water distribution system. This will determine if the estimated fire flow capacity of the development will meet the required fire flows determined by the City of St. Charles Fire Department and International Fire Code.

Traffic Impact Study by Hampton, Lenzini and Renwick (not to exceed \$41,938.96)

This will be a comprehensive traffic study including:

Core Analysis

- Peak Hour Traffic counts at 13 intersections listed below:
(Weekday: 6-9am, 3:30-6:30pm, Sat: 11am-2pm)
 - IL Route 38 & Randall Road
 - IL Route 38 & Jewel Right-in/Right-out Driveway
 - IL Route 38 & West Mall Entrance
 - IL Route 38 & East Mall Entrance/Vanderbilt Drive
 - IL Route 38 & 14th Street/Bricher Road
 - 14th Street & Mall Drive/Vanderbilt Drive
 - 14th Street & Covington Court/Horne Street
 - Prairie Street & 16th Street
 - Prairie Street & Covington Court/Wessel Court
 - Prairie Street & East Mall Driveway (KinderCare)
 - Prairie Street & West Mall Driveway
 - Prairie Street & Jewel/La Huerta Driveway
 - Randall Road & Prairie Street
- Evaluate Traffic Signal warrants and perform 13-hour counts for the following intersections:
 - Prairie Street & 14th Street
 - Prairie Street & 7th Street
 - Prairie Street & 3rd Street
- Use the traffic count data to calculate 2026 traffic with and without development and with and without the Consultant’s recommended improvements to the City roadway network.

Additional traffic analysis (currently included in total cost)

- Compare 2016 site-generated traffic volumes to traffic volumes assuming 2016 full occupancy of demolished old Mall.
- Compare 2016 site-generated traffic volumes to traffic volumes assuming 2016 full occupancy of site based on current commercial zoning.
- Provide commentary on cut-through traffic, traffic calming and on-site traffic circulation.
- Provide commentary impacts of KDOT’s planned widening of Randall Rd.

Attachments: (please list)

Maps
Studies

Recommendation / Suggested Action (briefly explain):

Staff recommends approval of the engineering proposals for Prairie Center.

For office use only:

Agenda Item Number: 3b

March 14, 2016

Russ Colby, Planning Division Manager

City of St. Charles

2 East Main Street

St. Charles, IL 60174

Re: Prairie Centre
Review Consultant Proposals

Dear Russ:

As you are aware, we are in the process of incorporating comments received during the Concept Plan Review meetings including the Plan Commission as well as the Planning and Development meetings in to a revised Preliminary Plan for the proposed development called Prairie Centre to be located on Lincoln Highway just east of Randall Road. We hope to have this Preliminary Plan completed in the coming weeks and will submit the draft plan to staff for staff review prior to submitting a formal Preliminary Plan Application.

We are in receipt of the copies of the consultant review proposals for the scope of work requested by the Planning and Engineering staff from the City relating to the Prairie Centre Development. We appreciate the idea and plan that City staff desires to have the necessary consultant work done once, at the onset, to avoid the requests to repeatedly return to the Consultants for additional study work during the public hearings and planning approval process of the proposed Preliminary Plan for Prairie Centre. We agree with staff that it is important to start the consultant reviews at this time. We also understand that the City staff will be managing these consultants who will complete the work approved by the City Council, for the proposed development, with the costs to be reimbursed by us. We do ask that this not be considered an open checkbook per say for the consultants and that only the necessary and required work be completed.

Upon reviewing the proposals, as we discussed at our meeting this past week, specifically the traffic study proposal, we question the need to study existing traffic at every intersection along Lincoln Highway and the proposed Development access points as well as the intersections of Randall Road/Lincoln Highway and Brundige/Lincoln Highway. You may recall that these intersections are already improved with turn lanes from the original development that was on the site and these intersections were NOT questioned during the public hearings of the proposed Towne Centre Development.

The timing of this work is important to collect the background information now and encourage the City Council to direct staff to proceed with the necessary work.

SHODEEN

17 North First Street
Geneva, Illinois 60134

phone 630.232.8570
facsimile 630.232.7895

www.shodeen.com

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Patzelt". The signature is fluid and cursive, with the first name "David" and last name "Patzelt" clearly legible.

David A. Patzelt, President Shodeen Construction

Cc: Chris Bong, City of St. Charles

SHODEEN

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WBK ENGINEERING, LLC

ENGINEERING SERVICES

PROPOSAL

Prairie Centre | St. Charles, IL

February 17, 2016

Mr. Chris Bong
Development Engineering Division Manager
City of St. Charles
Two East Main Street
St. Charles, IL 60174

**Subject: Proposal for Professional Engineering Services
Prairie Centre Stormwater & Drainage Review, St. Charles, IL**

Dear Mr. Bong:

WBK Engineering, LLC is pleased to provide this proposal to the City of St. Charles for professional engineering services for the Prairie Centre redevelopment project. WBK looks forward to the opportunity to assist the City of St. Charles in the evaluation of the stormwater management and drainage infrastructure. Included below is our understanding of the assignment, scope of services, project assumptions, and estimate of fee.

UNDERSTANDING OF THE ASSIGNMENT

The City has been approached with a redevelopment proposal for the site of the former St. Charles Mall located between Prairie Street and IL 38 and between 14 Street and Randall Road. Accordingly, the City is interested to have final engineering plans and stormwater management calculation for compliance with the City of St. Charles Stormwater Management Ordinance.

SCOPE OF SERVICES

TASK 1. STORMWATER PERMIT APPLICATION AND DRAINAGE CALCULATION REVIEW

This task includes a review of the stormwater permit application associated with the subject project and all drainage calculations. Calculation include the required stormwater detention volume, storm sewer calculations, overflow route analysis and off-site impact including upstream and downstream areas. This task includes up to three review cycles with the assumption that each successive cycle will result in less comments as issues are resolved and compliance demonstrated. The stormwater permit application also includes Tab 4 wetland compliance determination.

TASK 2. FINAL ENGINEERING PLAN REVIEW

This task includes the detailed review of final engineering plans including, utility plans, grading sheets, landscape plans, details and soil erosion and sediment control plans. This task includes up to three review cycles with the assumption that each successive cycle will result in less comments as issues are resolved and compliance demonstrated. All review comments will be provided to the City in written format.

TASK 3. MEETINGS & CONSULTATION

Limited time is included for meetings with the City and the applicant and their engineer. No public meetings or presentations are included in the scope of services at this time.

ESTIMATE OF FEES

i Due to the nature of the tasks listed in the above Scope of Basic Services, we have provided time and material budgets. The actual amount invoiced will be based on the level of effort required to accomplish the task, but we will not exceed the budget without your prior approval. Our estimated fees are based on the entire Scope of Basic Services being awarded to us. In general, individual tasks cannot be broken out and awarded separately.

Task #	Task Name	Fee
Task 1	Stormwater Permit Application and Drainage Calculation Review	\$4,000
Task 2	Final Engineering Plan Review	\$3,000
Task 3	Meetings and Consultation	\$1,500
	TOTAL	\$8,500

We propose to bill you monthly based on the attached Schedule of Charges. We establish our contract in accordance with the attached General Terms and Conditions. These General Terms and Conditions are expressly incorporated into and are made an integral part of this contract for professional services. We reserve the right to increase our fees by five percent (5%) on December 31st of each calendar year.

If this proposal is acceptable, please return one (1) signed copy to us for our files to serve as a notice to proceed. Thank you for the opportunity to provide service to City of St. Charles. If you have any questions, please do not hesitate to call.

Sincerely,



Greg Chismark
Municipal Practice Principal

Encl: 2016 Schedule of Charges
General Terms and Conditions St. Charles

THIS PROPOSAL, SCHEDULE OF CHARGES, AND GENERAL TERMS & CONDITIONS ACCEPTED FOR
CITY OF ST. CHARLES:

BY: _____

TITLE: _____

DATE: _____

WBK ENGINEERING, LLC
2016 Standard Charges for Professional Services

<u>Classification</u>	<u>Hourly Rate</u>
Principal	\$ 210
Engineer VI	\$ 185
Engineer V	\$ 165
Engineer IV	\$ 140
Engineer III	\$ 117
Engineer II	\$ 98
Engineer I	\$ 84
Engineering Technician IV	\$ 138
Engineering Technician III	\$ 116
Engineering Technician II	\$ 97
Engineering Technician I	\$ 81
Senior Structural Engineer	\$ 170
Senior Scientist	\$ 170
Environmental Resource Specialist IV	\$ 123
Environmental Resource Specialist III	\$ 94
Environmental Resource Specialist II	\$ 85
Environmental Resource Specialist I	\$ 78
Urban Planner V	\$ 180
Urban Planner IV	\$ 144
Urban Planner III	\$ 120
Urban Planner II	\$ 98
Urban Planner I	\$ 80
Landscape Architect	\$ 94
Professional Land Surveyor	\$ 130
Engineering Intern	\$ 45
Office Professional	\$ 62
Direct Costs: Copies & Prints, Messenger & Delivery Services, Mileage, etc.	Cost +10%

Charges include overhead and profit.

WBK Engineering, LLC reserves the right to increase rates and costs by 5% annually.

WBK ENGINEERING, LLC
GENERAL TERMS AND CONDITIONS
MODIFIED FOR CITY OF ST. CHARLES
February 17, 2016

1. Relationship Between Engineer and Client: WILLIS BURKE KELSEY ASSOCIATES, LTD. (Engineer) shall serve as Client's professional engineer consultant in those phases of the Project to which this Agreement applies. This relationship is that of a buyer and seller of professional services and as such the Engineer is an independent contractor in the performance of this Agreement and it is understood that the parties have not entered into any joint venture or partnership with the other. The Engineer shall not be considered to be the agent of the Client. Nothing contained in this Agreement shall create a contractual relationship with a cause of action in favor of a third party against either the Client or Engineer.

Furthermore, causes of action between the parties to this Agreement pertaining to acts of failures to act shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of substantial completion.

2. Responsibility of the Engineer: Engineer will strive to perform services under this Agreement in accordance with generally accepted and currently recognized engineering practices and principles, and in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document, or otherwise.

Notwithstanding anything to the contrary which may be contained in this Agreement or any other material incorporated herein by reference, or in any Agreement between the Client and any other party concerning the Project, the Engineer shall not have control or be in charge of and shall not be responsible for the means, methods, techniques, sequences or procedures of construction, or the safety, safety precautions or programs of the Client, the construction contractor, other contractors or subcontractors performing any of the work or providing any of the services on the Project. Nor shall the Engineer be responsible for the acts or omissions of the Client, or for the failure of the Client, any architect, engineer, consultant, contractor or subcontractor to carry out their respective responsibilities in accordance with the Project documents, this Agreement or any other agreement concerning the Project. Any provision which purports to amend this provision shall be without effect unless it contains a reference that the content of this condition is expressly amended for the purposes described in such amendment and is signed by the Engineer.

3. Changes: Client reserves the right by written change order or amendment to make changes in requirements, amount of work, or engineering time schedule adjustments, and Engineer and Client shall negotiate appropriate adjustments acceptable to both parties to accommodate any changes, if commercially possible.
4. Suspension of Services: Client may, at any time, by written order to Engineer (Suspension of Services Order) require Engineer to stop all, or any part, of the services required by this Agreement. Upon receipt of such an order, Engineer shall

immediately comply with its terms and take all reasonable steps to minimize the costs associated with the services affected by such order. Client, however, shall pay all costs incurred by the suspension, including all costs necessary to maintain continuity and for the resumptions of the services upon expiration of the Suspension of Services Order. Engineer will not be obligated to provide the same personnel employed prior to suspension, when the services are resumed, in the event that the period of suspension is greater than thirty (30) days.

5. Termination: This Agreement may be terminated by either party upon thirty (30) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. This Agreement may be terminated by Client, under the same terms, whenever Client shall determine that termination is in its best interests. Cost of termination, including salaries, overhead and fee, incurred by Engineer either before or after the termination date shall be reimbursed by Client.
6. Documents Delivered to Client: Drawings, specifications, reports, and any other Project Documents prepared by Engineer in connection with any or all of the services furnished hereunder shall be delivered to the Client for the use of the Client. Engineer shall have the right to retain originals of all Project Documents and drawings for its files. Furthermore, it is understood and agreed that the Project Documents such as, but not limited to reports, calculations, drawings, and specifications prepared for the Project, whether in hard copy or machine readable form, are instruments of professional service intended for one-time use in the construction of this Project. These Project Documents are and shall remain the property of the Engineer. The Client may retain copies, including copies stored on magnetic tape or disk, for information and reference in connection with the occupancy and use of the Project.

When and if record drawings are to be provided by the Engineer, Client understands that information used in the preparation of record drawings is provided by others and Engineer is not responsible for accuracy, completeness, nor sufficiency of such information. Client also understands that the level of detail illustrated by record drawings will generally be the same as the level of detail illustrated by the design drawing used for project construction. If additional detail is requested by the Client to be included on the record drawings, then the Client understands and agrees that the Engineer will be due additional compensation for additional services.

It is also understood and agreed that because of the possibility that information and data delivered in machine readable form may be altered, whether inadvertently or otherwise, the Engineer reserves the right to retain the original tapes/disks and to remove from copies provided to the Client all identification reflecting the involvement of the Engineer in their preparation. The Engineer also reserves the right to retain hard copy originals of all Project Documentation delivered to the Client in machine readable form, which originals shall be referred to and shall govern in the event of any inconsistency between the two.

The Client understands that the automated conversion of information and data from the system and format used by the Engineer to an alternate system or format cannot be accomplished without the introduction of inexactitudes, anomalies, and errors. In

the event Project Documentation provided to the Client in machine readable form is so converted, the Client agrees to assume all risks associated therewith and, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising therefrom or in connection therewith.

The Client recognizes that changes or modifications to the Engineer's instruments of professional service introduced by anyone other than the Engineer may result in adverse consequences which the Engineer can neither predict nor control. Therefore, and in consideration of the Engineer's agreement to deliver its instruments of professional service in machine readable form, the Client agrees, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising out of or in any way connected with the modification, misinterpretation, misuse, or reuse by others of the machine readable information and data provided by the Engineer under this Agreement. The foregoing indemnification applies, without limitation, to any use of the Project Documentation on other projects, for additions to this Project, or for completion of this Project by others, excepting only such use as may be authorized, in writing, by the Engineer.

7. Reuse of Documents: All Project Documents including but not limited to reports, opinions of probable costs, drawings and specifications furnished by Engineer pursuant to this Agreement are intended for use on the Project only. They cannot be used by Client or others on extensions of the Project or any other project. Any reuse, without specific written verification or adaptation by Engineer, shall be at Client's sole risk, and Client shall indemnify and hold harmless Engineer from all claims, damages, losses, and expenses including attorney's fees arising out of or resulting therefrom.

The Engineer shall have the right to include representations of the design of the Project, including photographs of the exterior and interior, among the Engineer's promotional and professional materials. The Engineer's materials shall not include the Client's confidential and proprietary information if the Client has previously advised the Engineer in writing of the specific information considered by the Client to be confidential and proprietary.

8. Standard of Practice: The Engineer will strive to conduct services under this agreement in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as of the date of this Agreement.
9. Compliance with Laws: The Engineer will strive to exercise usual and customary professional care in his/her efforts to comply with those laws, codes, ordinance and regulations which are in effect as of the date of this Agreement. With specific respect to prescribed requirements of the Americans with Disabilities Act of 1990 or certified state or local accessibility regulations (ADA), Client understands ADA is a civil rights legislation and that interpretation of ADA is a legal issue and not a design issue and, accordingly, retention of legal counsel (by Client) for purposes of interpretation is advisable. As such and with respect to ADA, Client agrees to waive any action against

Engineer, and to indemnify and defend Engineer against any claim arising from Engineer's alleged failure to meet ADA requirements prescribed.

Further to the law and code compliance, the Client understands that the Engineer will strive to provide designs in accordance with the prevailing Standards of Practice as previously set forth, but that the Engineer does not warrant that any reviewing agency having jurisdiction will not for its own purposes comment, request changes and/or additions to such designs. In the event such design requests are made by a reviewing agency, but which do not exist in the form of a written regulation, ordinance or other similar document as published by the reviewing agency, then such design changes (at substantial variance from the intended design developed by the Engineer), if effected and incorporated into the project documents by the Engineer, shall be considered as Supplementary Task(s) to the Engineer's Scope of Service and compensated for accordingly.

10. Affirmative Action: The Engineer is committed to the principles of equal employment opportunity. Moreover, as a government contractor bound by Executive Order 11246, Engineer takes its affirmative action obligations very seriously. Engineer states as its Policy of Affirmative Action the following:

It will be the policy of the Engineer to recruit, hire, train and promote persons in all job titles without regard to race, color, religion, sex, age, disability, veteran status, national origin, or any other characteristic protected by applicable law.

All employment decisions shall be consistent with the principle of equal employment opportunity, and only job-related qualifications will be required.

All personnel actions, such as compensation, benefits, transfers, tuition assistance, social and recreational programs, etc. will be administered without regard to race, color, religion, sex, age, disability, veteran status, national origin, or any other characteristic protected by applicable law.

11. Indemnification: Engineer shall indemnify and hold harmless Client up to the amount of Engineer's insurance coverage from loss or expense, including reasonable attorney's fees for claims for personal injury (including death) or property damage to the extent caused by the sole negligent act, error or omission of Engineer.

Client shall indemnify and hold harmless Engineer up to amount of Client's insurance coverage, from loss or expense, including reasonable attorney's fees, for claims for personal injuries (including death) or property damage arising out of the sole negligent act, error or omission of Client.

In the event of joint or concurrent negligence of Engineer and Client, each shall bear that portion of the loss or expense that its share of the joint or concurrent negligence bears to the total negligence (including that of third parties), which caused the personal injury or property damage.

Engineer shall not be liable for special, incidental or consequential damages, including, but not limited to loss of profits, revenue, use of capital, claims of customers, cost of purchased or replacement power, or for any other loss of any nature, whether

based on contract, tort, negligence, strict liability or otherwise, by reasons of the services rendered under this Agreement.

12. Opinions of Probable Cost: Since Engineer has no control over the cost of labor, materials or equipment, or over the Contractor(s) method of determining process, or over competitive bidding or market conditions, his/her opinions of probable Project Construction Cost provided for herein are to be made on the basis of his/her experience and qualifications and represent his/her judgement as a design professional familiar with the construction industry, but Engineer cannot and does not guarantee that proposal, bids or the Construction Cost will not vary from opinions of probable construction cost prepared by him/her. If prior to the Bidding or Negotiating Phase, Client wishes greater accuracy as to the Construction Cost, the Client shall employ an independent cost estimator Consultant for the purpose of obtaining a second construction cost opinion independent from Engineer.
13. Governing Law & Dispute Resolutions: This Agreement shall be governed by and construed in accordance with Articles previously set forth by (Item 9 of) this Agreement, together with the laws of the **State of Illinois**.

Any claim, dispute or other matter in question arising out of or related to this Agreement, which can not be mutually resolved by the parties of this Agreement, shall be subject to mediation as a condition precedent to arbitration (if arbitration is agreed upon by the parties of this Agreement) or the institution of legal or equitable proceedings by either party. If such matter relates to or is the subject of a lien arising out of the Engineer's services, the Engineer may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by arbitration.

The Client and Engineer shall endeavor to resolve claims, disputes and other matters in question between them by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Requests for mediation shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

14. Successors and Assigns: The terms of this Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns: provided, however, that neither party shall assign this Agreement in whole or in part without the prior written approval of the other.

15. Waiver of Contract Breach: The waiver of one party of any breach of this Agreement or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof, shall be limited to the particular instance, shall not operate or be deemed to waive any future breaches of this Agreement and shall not be construed to be a waiver of any provision, except for the particular instance.
16. Entire Understanding of Agreement: This Agreement represents and incorporates the entire understanding of the parties hereto, and each party acknowledges that there are no warranties, representations, covenants or understandings of any kind, matter or description whatsoever, made by either party to the other except as expressly set forth herein. Client and the Engineer hereby agree that any purchase orders, invoices, confirmations, acknowledgments or other similar documents executed or delivered with respect to the subject matter hereof that conflict with the terms of the Agreement shall be null, void and without effect to the extent they conflict with the terms of this Agreement.
17. Amendment: This Agreement shall not be subject to amendment unless another instrument is duly executed by duly authorized representatives of each of the parties and entitled "Amendment of Agreement".
18. Severability of Invalid Provisions: If any provision of the Agreement shall be held to contravene or to be invalid under the laws of any particular state, county or jurisdiction where used, such contravention shall not invalidate the entire Agreement, but it shall be construed as if not containing the particular provisions held to be invalid in the particular state, country or jurisdiction and the rights or obligations of the parties hereto shall be construed and enforced accordingly.
19. Force Majeure: Neither Client nor Engineer shall be liable for any fault or delay caused by any contingency beyond their control including but not limited to acts of God, wars, strikes, walkouts, fires, natural calamities, or demands or requirements of governmental agencies.
20. Subcontracts: Engineer may subcontract portions of the work, but each subcontractor must be approved by Client in writing.
21. Access and Permits: Client shall arrange for Engineer to enter upon public and private property and obtain all necessary approvals and permits required from all governmental authorities having jurisdiction over the Project. Client shall pay costs (including Engineer's employee salaries, overhead and fee) incident to any effort by Engineer toward assisting Client in such access, permits or approvals, if Engineer performs such services.
22. Designation of Authorized Representative: Each party (to this Agreement) shall designate one or more persons to act with authority in its behalf in respect to appropriate aspects of the Project. The persons designated shall review and respond promptly to all communications received from the other party.
23. Notices: Any notice or designation required to be given to either party hereto shall be in writing, and unless receipt of such notice is expressly required by the terms hereof

shall be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party to whom such notice is directed at such party's place of business or such other address as either party shall hereafter furnish to the other party by written notice as herein provided.

24. Limit of Liability: The Client and the Engineer have discussed the risks, rewards, and benefits of the project and the Engineer's total fee for services. In recognition of the relative risks and benefits of the Project to both the Client and the Engineer, the risks have been allocated such that the Client agrees that to the fullest extent permitted by law, the Engineer's total aggregate liability to the Client for any and all injuries, claims, costs, losses, expenses, damages of any nature whatsoever or claim expenses arising out of this Agreement from any cause or causes, including attorney's fees and costs, and expert witness fees and costs, shall not exceed the limits of Engineer's insurance coverage as applicable. Such causes included but are not limited to the Engineer's negligence, errors, omissions, strict liability or breach of contract. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.
25. Client's Responsibilities: The Client agrees to provide full information regarding requirements for and about the Project, including a program which shall set forth the Client's objectives, schedule, constraints, criteria, special equipment, systems and site requirements.

The Client agrees to furnish and pay for all legal, accounting and insurance counseling services as may be necessary at any time for the Project, including auditing services which the Client may require to verify the Contractor's Application for Payment or to ascertain how or for what purpose the Contractor has used the money paid by or on behalf of the Client.

The Client agrees to require the Contractor, to the fullest extent permitted by law, to indemnify, hold harmless, and defend the Engineer, its consultants, and the employees and agents of any of them from and against any and all claims, suits, demands, liabilities, losses, damages, and costs ("Losses"), including but not limited to costs of defense, arising in whole or in part out of the negligence of the Contractor, its subcontractors, the officers, employees, agents, and subcontractors of any of them, or anyone for whose acts any of them may be liable, regardless of whether or not such Losses are caused in part by a party indemnified hereunder. Specifically excluded from the foregoing are Losses arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, and the giving of or failure to give directions by the Engineer, its consultants, and the agents and employees of any of them, provided such giving or failure to give is the primary cause of Loss. The Client also agrees to require the Contractor to provide to the Engineer the required certificate of insurance.

The Client further agrees to require the Contractor to name the Engineer, its agents and consultants as additional insureds on the Contractor's policy or policies of comprehensive or commercial general liability insurance. Such insurance shall include products and completed operations and contractual liability coverages, shall be primary and noncontributing with any insurance maintained by the Engineer or its agents and consultants, and shall provide that the Engineer be given thirty days, unqualified written notice prior to any cancellation thereof.

In the event the foregoing requirements, or any of them, are not established by the Client and met by the Contractor, the Client agrees to indemnify and hold harmless the Engineer, its employees, agents, and consultants from and against any and all Losses which would have been indemnified and insured against by the Contractor, but were not.

When Contract Documents prepared under the Scope of Services of this contract require insurance(s) to be provided, obtained and/or otherwise maintained by the Contractor, the Client agrees to be wholly responsible for setting forth any and all such insurance requirements. Furthermore, any document provided for Client review by the Engineer under this Contract related to such insurance(s) shall be considered as sample insurance requirements and not the recommendation of the Engineer. Client agrees to have their own risk management department review any and all insurance requirements for adequacy and to determine specific types of insurance(s) required for the project. Client further agrees that decisions concerning types and amounts of insurance are specific to the project and shall be the product of the Client. As such, any and all insurance requirements made part of Contract Documents prepared by the Engineer are not to be considered the Engineer's recommendation, and the Client shall make the final decision regarding insurance requirements.

26. Information Provided by Others: The Engineer shall indicate to the Client the information needed for rendering of the services of this Agreement. The Client shall provide to the Engineer such information as is available to the Client and the Client's consultants and contractors, and the Engineer shall be entitled to rely upon the accuracy and completeness thereof. The Client recognizes that it is impossible for the Engineer to assure the accuracy, completeness and sufficiency of such information, either because it is impossible to verify, or because of errors or omissions which may have occurred in assembling the information the Client is providing. Accordingly, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Engineer and the Engineer's subconsultants harmless from any claim, liability or cost (including reasonable attorneys' fees and cost of defense) for injury or loss arising or allegedly arising from errors, omissions or inaccuracies in documents or other information provided by the Client to the Engineer.
27. Payment: Client shall be invoiced once each month for work performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. The client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause within said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law, whichever is the lesser) until paid. Client further agrees to pay Engineer's cost of collection of all amounts due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees, as well as costs attributed to suspension of services accordingly and as follows:

Collection Costs: In the event legal action is necessary to enforce the payment provisions of this Agreement, the Engineer shall be entitled to collect from the

Client any judgement or settlement sums due, reasonable attorneys' fees, court costs and expenses incurred by the Engineer in connection therewith and, in addition, the reasonable value of the Engineer's time and expenses spent in connection with such collection action, computed at the Engineer's prevailing fee schedule and expense policies.

Suspension of Services: If the Client fails to make payments when due or otherwise is in breach of this Agreement, the Engineer may suspend performance of services upon five (5) calendar days' notice to the Client. The Engineer shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension caused by any breach of this Agreement by the Client. Client will reimburse Engineer for all associated costs as previously set forth in (Item 4 of) this Agreement.

28. When construction observation tasks are part of the service to be performed by the Engineer under this Agreement, the Client will include the following clause in the construction contract documents and Client agrees not to modify or delete it:

Kotecki Waiver: Contractor (and any subcontractor into whose subcontract this clause is incorporated) agrees to assume the entire liability for all personal injury claims suffered by its own employees, including without limitation claims under the **Illinois** Structural Work Act, asserted by persons allegedly injured on the Project; waives any limitation of liability defense based upon the Worker's Compensation Act, court interpretations of said Act or otherwise; and to the fullest extent permitted by law, agrees to indemnify and hold harmless and defend Owner and Engineer and their agents, employees and consultants (the "Indemnitees") from and against all such loss, expense, damage or injury, including reasonable attorneys' fees, that the Indemnitees may sustain as a result of such claims, except to the extent that **Illinois** law prohibits indemnity for the Indemnitees' own negligence. The Owner and Engineer are designated and recognized as explicit third-party beneficiaries of the Kotecki Waiver within the general contract and all subcontracts entered into in furtherance of the general contract.

29. **Job Site Safety/Supervision & Construction Observation:** The Engineer shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences of procedures, or for safety precautions and programs in connection with the Work since they are solely the Contractor's rights and responsibilities. The Client agrees that the Contractor shall supervise and direct the work efficiently with his/her best skill and attention; and that the Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and safety at the job site. The Client agrees and warrants that this intent shall be carried out in the Client's contract with the Contractor. The Client further agrees that the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work; and that the Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the subject site and all other persons who may be affected thereby. The Engineer shall

have no authority to stop the work of the Contractor or the work of any subcontractor on the project.

When construction observation services are included in the Scope of Services, the Engineer shall visit the site at intervals appropriate to the stage of the Contractor's operation, or as otherwise agreed to by the Client and the Engineer to: 1) become generally familiar with and to keep the Client informed about the progress and quality of the Work; 2) to strive to bring to the Client's attention defects and deficiencies in the Work and; 3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. If the Client desires more extensive project observation, the Client shall request that such services be provided by the Engineer as Additional and Supplemental Construction Observation Services in accordance with the terms of this Agreement.

The Engineer shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the Work, or any agents or employees of any of them. The Engineer does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its Work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

When municipal review services are included in the Scope of Services, the Engineer (acting on behalf of the municipality), when acting in good faith in the discharge of its duties, shall not thereby render itself liable personally and is, to the maximum extent permitted by law, relieved from all liability for any damage that may accrue to persons or property by reason of any act or omission in the discharge of its duties. Any suit brought against the Engineer which involve the acts or omissions performed by it in the enforcement of any provisions of the Client's rules, regulation and/or ordinance shall be defended by the Client until final termination of the proceedings. The Engineer shall be entitled to all defenses and municipal immunities that are, or would be, available to the Client.

30. Insurance and Indemnification: The Engineer and the Client understand and agree that the Client will contractually require the Contractor to defend and indemnify the Engineer and/or any subconsultants from any claims arising from the Work. The Engineer and the Client further understand and agree that the Client will contractually require the Contractor to procure commercial general liability insurance naming the Engineer as an additional named insured with respect to the work. The Contractor shall provide to the Client certificates of insurance evidencing that the contractually required insurance coverage has been procured. However, the Contractor's failure to provide the Client with the requisite certificates of insurance shall not constitute a waiver of this provision by the Engineer.

The Client and Engineer waive all rights against each other and against the Contractor and consultants, agents and employees of each of them for damages to the extent covered by property insurance during construction. The Client and Engineer each shall require similar waivers from the Contractor, consultants, agents

and persons or entities awarded separate contracts administered under the Client's own forces.

31. Hazardous Materials/Pollutants: Unless otherwise provided by this Agreement, the Engineer and Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials/pollutants in any form at the Project site, including but not limited to mold/mildew, asbestos, asbestos products, polychlorinated biphenyl (PCB) or other toxic/hazardous/pollutant type substances.

Furthermore, Client understands that the presence of mold/mildew and the like are results of prolonged or repeated exposure to moisture and the lack of corrective action. Client also understands that corrective action is a operation, maintenance and repair activity for which the Engineer is not responsible.



WBK ENGINEERING, LLC

ENGINEERING SERVICES

PROPOSAL

116 West Main Street, Suite 201
St. Charles, Illinois 60174
P: 630.443.7755
F: 630.443.0533

www.wbkengineering.com

Prairie Centre Sanitary Sewer Evaluation | St. Charles, IL

February 17, 2016

Mr. Chris Bong
Development Engineering Division Manager
City of St. Charles
Two East Main Street
St. Charles, IL 60174

**Subject: Proposal for Professional Engineering Services
Prairie Centre Sanitary Sewer Evaluation, St. Charles, IL**

Dear Mr. Bong:

WBK Engineering, LLC is pleased to provide this proposal to the City of St. Charles (Client) for professional engineering services for the Prairie Centre redevelopment project. WBK looks forward to the opportunity to assist the City of St. Charles in the evaluation of the wastewater collection infrastructure. Included below is our understanding of the assignment, scope of services, project assumptions, and estimate of fee.

UNDERSTANDING OF THE ASSIGNMENT

The City has been approached with a redevelopment proposal for the site of the former St. Charles Mall located between Prairie Street and IL 38 and between 14 Street and Randall Road. This parcel was previously considered for redevelopment in 2008 – 2010 and an evaluation of the wastewater collection system was performed at that time (wastewater collection report). That study provided recommendations for connection locations and improvements from the project site to IL 31. Subsequent to that study, an evaluation of the Park Shore Siphon was performed (siphon report). At the time the 2008 – 2010 study was initiated the City was completing additional flow monitoring (RJN data). This data was not considered in the wastewater collection system report but was utilized in the Park Shore Siphon report.

Accordingly, the City is interested to update both the wastewater collection report and the siphon report utilizing the most current land use plan and considering the RJN data for both. The reports will also include changes to land use and any other sanitary sewer improvements constructed since 2010. The City is interested in determining the suitability of the existing wastewater collection and siphon infrastructure to support the proposed redevelopment. If improvements are necessary, they shall be identified and costs developed for discussions with the developer.

SCOPE OF SERVICES

TASK 1. DATA REVIEW

This task includes procuring and reviewing all prior data and reports regarding the Prairie Centre site and the wastewater collection system. Prior studies and reports include:

- The Prairie Centre Sanitary Sewer Evaluation
- Park Shore Siphon Report
- RJN Flow Data Report
- Proposed redevelopment land use plan
- Current GIS data
- Infrastructure Improvements list

A review of reports and data will determine if RJN data can be utilized for the updated Sanitary Sewer Evaluation. This includes an evaluation of the extent and reliability of the flow monitoring data and consistency with the prior reports. This task includes retrieval of excel spreadsheets for capacity analysis and updating to current versions. We will determine if additional information (i.e. survey) is necessary. It is assumed no additional survey is necessary and it is not included in the scope at this time.

TASK 2. WASTEWATER COLLECTION SYSTEM CAPACITY ANALYSIS

The pertinent RJN data will be extracted from the flow monitoring report and compared to the Black and Veatch flows. We will confer with City staff on any adjustments to the Black and Veatch flow data utilized. Once established flow monitoring data will be extrapolated across the system configuration. The capacity methodology from the original wastewater collection study will be utilized. An “existing conditions” analysis will be performed as a first step. Proposed wastewater flows from the redevelopment site will be calculated and tabulated. The phasing of the project will be considered in anticipation of sanitary sewer improvements. The proposed wastewater flows will be added to the existing condition analysis to create a “proposed conditions” analysis. Deficiencies are anticipated based on the prior analyses. Recommendations for improvements will be made and a “recommended conditions” analysis.

WBK will create a concept exhibit of proposed improvements and develop preliminary cost estimates for recommended infrastructure improvements. Cost estimates will include all elements of a construction project including, traffic control, restoration and soft costs.

TASK 3. PARK SHORE SIPHON ANALYSIS

It is believed the RJN data was utilized in the original analysis of the Park Shore Siphon analysis, however, there were two sets of flow monitoring data and we will verify the most recent data was used and that the data was appropriately applied. The proposed project flows will be revised based on the site plan for the redevelopment site. Flow values will be compared to those utilized in the original analysis. If flow values are reduced from the original analysis no further evaluation is warranted and the results and recommendations from the original analysis will be considered valid. Re-running the SWMMM model is not included in the scope of this proposal. A revised SWMMM analysis can be performed as an additional service if desired.

TASK 4. FINAL REPORT

WBK will prepare a comprehensive final report summarizing Tasks 1 through 3. The final report will include a description of methodologies, analysis results, phasing considerations, cost estimating and conclusions and summary. The report will also provide exhibits, analysis tables and detailed cost estimates. The report will be submitted to the City for review when 90% complete. All City comments will be reviewed and incorporated into the report prior to distribution.

TASK 5. MEETINGS AND PRESENTATIONS

The scope of this proposal includes a meeting with City staff to review the RJN and Black and Veatch comparison and establish a design basis for this study. One meeting with the City and the developer to review the final report results is also included. It is anticipated one public presentation may be necessary at a City Council or Council committee meeting and is included in the scope of this proposal.

ESTIMATE OF FEES

i Due to the nature of the tasks listed in the above Scope of Basic Services, we have provided time and material budgets. The actual amount invoiced will be based on the level of effort required to accomplish the task, but we will not exceed the budget without your prior approval. Our estimated fees are based on the entire Scope of Basic Services being awarded to us. In general, individual tasks cannot be broken out and awarded separately.

Task #	Task Name	Fee
Task 1	Data Review	\$2,500
Task 2	Wastewater Collection Analysis	\$5,900
Task 3	Park Shore Siphon Analysis	\$1,300
Task 4	Final Report	\$5,200
Task 5	Meetings and Presentation	\$2,700
	TOTAL	\$17,600
	Reimbursable Costs (Including Printing)	\$250

We propose to bill you monthly based on the attached Schedule of Charges. We establish our contract in accordance with the attached General Terms and Conditions. These General Terms and Conditions are expressly incorporated into and are made an integral part of this contract for professional services. We reserve the right to increase our fees by five percent (5%) on December 31st of each calendar year.

If this proposal is acceptable, please return one (1) signed copy to us for our files to serve as a notice to proceed. Thank you for the opportunity to provide service to City of St. Charles. If you have any questions, please do not hesitate to call.

Sincerely,



Greg Chismark
Municipal Practice Principal

Encl: 2016 Schedule of Charges
General Terms and Conditions for St. Charles

THIS PROPOSAL, SCHEDULE OF CHARGES, AND GENERAL TERMS & CONDITIONS ACCEPTED FOR CITY OF ST. CHARLES:

BY: _____

TITLE: _____

DATE: _____

WBK ENGINEERING, LLC
2016 Standard Charges for Professional Services

<u>Classification</u>	<u>Hourly Rate</u>
Principal	\$ 210
Engineer VI	\$ 185
Engineer V	\$ 165
Engineer IV	\$ 140
Engineer III	\$ 117
Engineer II	\$ 98
Engineer I	\$ 84
Engineering Technician IV	\$ 138
Engineering Technician III	\$ 116
Engineering Technician II	\$ 97
Engineering Technician I	\$ 81
Senior Structural Engineer	\$ 170
Senior Scientist	\$ 170
Environmental Resource Specialist IV	\$ 123
Environmental Resource Specialist III	\$ 94
Environmental Resource Specialist II	\$ 85
Environmental Resource Specialist I	\$ 78
Urban Planner V	\$ 180
Urban Planner IV	\$ 144
Urban Planner III	\$ 120
Urban Planner II	\$ 98
Urban Planner I	\$ 80
Landscape Architect	\$ 94
Professional Land Surveyor	\$ 130
Engineering Intern	\$ 45
Office Professional	\$ 62
Direct Costs: Copies & Prints, Messenger & Delivery Services, Mileage, etc.	Cost +10%

Charges include overhead and profit.

*WBK Engineering, LLC reserves the right to increase rates and
costs by 5% annually.*

WBK ENGINEERING, LLC
GENERAL TERMS AND CONDITIONS
MODIFIED FOR CITY OF ST. CHARLES
February 17, 2016

1. Relationship Between Engineer and Client: WILLIS BURKE KELSEY ASSOCIATES, LTD. (Engineer) shall serve as Client's professional engineer consultant in those phases of the Project to which this Agreement applies. This relationship is that of a buyer and seller of professional services and as such the Engineer is an independent contractor in the performance of this Agreement and it is understood that the parties have not entered into any joint venture or partnership with the other. The Engineer shall not be considered to be the agent of the Client. Nothing contained in this Agreement shall create a contractual relationship with a cause of action in favor of a third party against either the Client or Engineer.

Furthermore, causes of action between the parties to this Agreement pertaining to acts of failures to act shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of substantial completion.

2. Responsibility of the Engineer: Engineer will strive to perform services under this Agreement in accordance with generally accepted and currently recognized engineering practices and principles, and in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document, or otherwise.

Notwithstanding anything to the contrary which may be contained in this Agreement or any other material incorporated herein by reference, or in any Agreement between the Client and any other party concerning the Project, the Engineer shall not have control or be in charge of and shall not be responsible for the means, methods, techniques, sequences or procedures of construction, or the safety, safety precautions or programs of the Client, the construction contractor, other contractors or subcontractors performing any of the work or providing any of the services on the Project. Nor shall the Engineer be responsible for the acts or omissions of the Client, or for the failure of the Client, any architect, engineer, consultant, contractor or subcontractor to carry out their respective responsibilities in accordance with the Project documents, this Agreement or any other agreement concerning the Project. Any provision which purports to amend this provision shall be without effect unless it contains a reference that the content of this condition is expressly amended for the purposes described in such amendment and is signed by the Engineer.

3. Changes: Client reserves the right by written change order or amendment to make changes in requirements, amount of work, or engineering time schedule adjustments, and Engineer and Client shall negotiate appropriate adjustments acceptable to both parties to accommodate any changes, if commercially possible.
4. Suspension of Services: Client may, at any time, by written order to Engineer (Suspension of Services Order) require Engineer to stop all, or any part, of the services required by this Agreement. Upon receipt of such an order, Engineer shall

immediately comply with its terms and take all reasonable steps to minimize the costs associated with the services affected by such order. Client, however, shall pay all costs incurred by the suspension, including all costs necessary to maintain continuity and for the resumptions of the services upon expiration of the Suspension of Services Order. Engineer will not be obligated to provide the same personnel employed prior to suspension, when the services are resumed, in the event that the period of suspension is greater than thirty (30) days.

5. Termination: This Agreement may be terminated by either party upon thirty (30) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. This Agreement may be terminated by Client, under the same terms, whenever Client shall determine that termination is in its best interests. Cost of termination, including salaries, overhead and fee, incurred by Engineer either before or after the termination date shall be reimbursed by Client.
6. Documents Delivered to Client: Drawings, specifications, reports, and any other Project Documents prepared by Engineer in connection with any or all of the services furnished hereunder shall be delivered to the Client for the use of the Client. Engineer shall have the right to retain originals of all Project Documents and drawings for its files. Furthermore, it is understood and agreed that the Project Documents such as, but not limited to reports, calculations, drawings, and specifications prepared for the Project, whether in hard copy or machine readable form, are instruments of professional service intended for one-time use in the construction of this Project. These Project Documents are and shall remain the property of the Engineer. The Client may retain copies, including copies stored on magnetic tape or disk, for information and reference in connection with the occupancy and use of the Project.

When and if record drawings are to be provided by the Engineer, Client understands that information used in the preparation of record drawings is provided by others and Engineer is not responsible for accuracy, completeness, nor sufficiency of such information. Client also understands that the level of detail illustrated by record drawings will generally be the same as the level of detail illustrated by the design drawing used for project construction. If additional detail is requested by the Client to be included on the record drawings, then the Client understands and agrees that the Engineer will be due additional compensation for additional services.

It is also understood and agreed that because of the possibility that information and data delivered in machine readable form may be altered, whether inadvertently or otherwise, the Engineer reserves the right to retain the original tapes/disks and to remove from copies provided to the Client all identification reflecting the involvement of the Engineer in their preparation. The Engineer also reserves the right to retain hard copy originals of all Project Documentation delivered to the Client in machine readable form, which originals shall be referred to and shall govern in the event of any inconsistency between the two.

The Client understands that the automated conversion of information and data from the system and format used by the Engineer to an alternate system or format cannot be accomplished without the introduction of inexactitudes, anomalies, and errors. In

the event Project Documentation provided to the Client in machine readable form is so converted, the Client agrees to assume all risks associated therewith and, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising therefrom or in connection therewith.

The Client recognizes that changes or modifications to the Engineer's instruments of professional service introduced by anyone other than the Engineer may result in adverse consequences which the Engineer can neither predict nor control. Therefore, and in consideration of the Engineer's agreement to deliver its instruments of professional service in machine readable form, the Client agrees, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising out of or in any way connected with the modification, misinterpretation, misuse, or reuse by others of the machine readable information and data provided by the Engineer under this Agreement. The foregoing indemnification applies, without limitation, to any use of the Project Documentation on other projects, for additions to this Project, or for completion of this Project by others, excepting only such use as may be authorized, in writing, by the Engineer.

7. Reuse of Documents: All Project Documents including but not limited to reports, opinions of probable costs, drawings and specifications furnished by Engineer pursuant to this Agreement are intended for use on the Project only. They cannot be used by Client or others on extensions of the Project or any other project. Any reuse, without specific written verification or adaptation by Engineer, shall be at Client's sole risk, and Client shall indemnify and hold harmless Engineer from all claims, damages, losses, and expenses including attorney's fees arising out of or resulting therefrom.

The Engineer shall have the right to include representations of the design of the Project, including photographs of the exterior and interior, among the Engineer's promotional and professional materials. The Engineer's materials shall not include the Client's confidential and proprietary information if the Client has previously advised the Engineer in writing of the specific information considered by the Client to be confidential and proprietary.

8. Standard of Practice: The Engineer will strive to conduct services under this agreement in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as of the date of this Agreement.
9. Compliance with Laws: The Engineer will strive to exercise usual and customary professional care in his/her efforts to comply with those laws, codes, ordinance and regulations which are in effect as of the date of this Agreement. With specific respect to prescribed requirements of the Americans with Disabilities Act of 1990 or certified state or local accessibility regulations (ADA), Client understands ADA is a civil rights legislation and that interpretation of ADA is a legal issue and not a design issue and, accordingly, retention of legal counsel (by Client) for purposes of interpretation is advisable. As such and with respect to ADA, Client agrees to waive any action against

Engineer, and to indemnify and defend Engineer against any claim arising from Engineer's alleged failure to meet ADA requirements prescribed.

Further to the law and code compliance, the Client understands that the Engineer will strive to provide designs in accordance with the prevailing Standards of Practice as previously set forth, but that the Engineer does not warrant that any reviewing agency having jurisdiction will not for its own purposes comment, request changes and/or additions to such designs. In the event such design requests are made by a reviewing agency, but which do not exist in the form of a written regulation, ordinance or other similar document as published by the reviewing agency, then such design changes (at substantial variance from the intended design developed by the Engineer), if effected and incorporated into the project documents by the Engineer, shall be considered as Supplementary Task(s) to the Engineer's Scope of Service and compensated for accordingly.

10. Affirmative Action: The Engineer is committed to the principles of equal employment opportunity. Moreover, as a government contractor bound by Executive Order 11246, Engineer takes its affirmative action obligations very seriously. Engineer states as its Policy of Affirmative Action the following:

It will be the policy of the Engineer to recruit, hire, train and promote persons in all job titles without regard to race, color, religion, sex, age, disability, veteran status, national origin, or any other characteristic protected by applicable law.

All employment decisions shall be consistent with the principle of equal employment opportunity, and only job-related qualifications will be required.

All personnel actions, such as compensation, benefits, transfers, tuition assistance, social and recreational programs, etc. will be administered without regard to race, color, religion, sex, age, disability, veteran status, national origin, or any other characteristic protected by applicable law.

11. Indemnification: Engineer shall indemnify and hold harmless Client up to the amount of Engineer's insurance coverage from loss or expense, including reasonable attorney's fees for claims for personal injury (including death) or property damage to the extent caused by the sole negligent act, error or omission of Engineer.

Client shall indemnify and hold harmless Engineer up to amount of Client's insurance coverage, from loss or expense, including reasonable attorney's fees, for claims for personal injuries (including death) or property damage arising out of the sole negligent act, error or omission of Client.

In the event of joint or concurrent negligence of Engineer and Client, each shall bear that portion of the loss or expense that its share of the joint or concurrent negligence bears to the total negligence (including that of third parties), which caused the personal injury or property damage.

Engineer shall not be liable for special, incidental or consequential damages, including, but not limited to loss of profits, revenue, use of capital, claims of customers, cost of purchased or replacement power, or for any other loss of any nature, whether

based on contract, tort, negligence, strict liability or otherwise, by reasons of the services rendered under this Agreement.

12. Opinions of Probable Cost: Since Engineer has no control over the cost of labor, materials or equipment, or over the Contractor(s) method of determining process, or over competitive bidding or market conditions, his/her opinions of probable Project Construction Cost provided for herein are to be made on the basis of his/her experience and qualifications and represent his/her judgement as a design professional familiar with the construction industry, but Engineer cannot and does not guarantee that proposal, bids or the Construction Cost will not vary from opinions of probable construction cost prepared by him/her. If prior to the Bidding or Negotiating Phase, Client wishes greater accuracy as to the Construction Cost, the Client shall employ an independent cost estimator Consultant for the purpose of obtaining a second construction cost opinion independent from Engineer.
13. Governing Law & Dispute Resolutions: This Agreement shall be governed by and construed in accordance with Articles previously set forth by (Item 9 of) this Agreement, together with the laws of the **State of Illinois**.

Any claim, dispute or other matter in question arising out of or related to this Agreement, which can not be mutually resolved by the parties of this Agreement, shall be subject to mediation as a condition precedent to arbitration (if arbitration is agreed upon by the parties of this Agreement) or the institution of legal or equitable proceedings by either party. If such matter relates to or is the subject of a lien arising out of the Engineer's services, the Engineer may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by arbitration.

The Client and Engineer shall endeavor to resolve claims, disputes and other matters in question between them by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Requests for mediation shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

14. Successors and Assigns: The terms of this Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns: provided, however, that neither party shall assign this Agreement in whole or in part without the prior written approval of the other.

15. Waiver of Contract Breach: The waiver of one party of any breach of this Agreement or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof, shall be limited to the particular instance, shall not operate or be deemed to waive any future breaches of this Agreement and shall not be construed to be a waiver of any provision, except for the particular instance.
16. Entire Understanding of Agreement: This Agreement represents and incorporates the entire understanding of the parties hereto, and each party acknowledges that there are no warranties, representations, covenants or understandings of any kind, matter or description whatsoever, made by either party to the other except as expressly set forth herein. Client and the Engineer hereby agree that any purchase orders, invoices, confirmations, acknowledgments or other similar documents executed or delivered with respect to the subject matter hereof that conflict with the terms of the Agreement shall be null, void and without effect to the extent they conflict with the terms of this Agreement.
17. Amendment: This Agreement shall not be subject to amendment unless another instrument is duly executed by duly authorized representatives of each of the parties and entitled "Amendment of Agreement".
18. Severability of Invalid Provisions: If any provision of the Agreement shall be held to contravene or to be invalid under the laws of any particular state, county or jurisdiction where used, such contravention shall not invalidate the entire Agreement, but it shall be construed as if not containing the particular provisions held to be invalid in the particular state, country or jurisdiction and the rights or obligations of the parties hereto shall be construed and enforced accordingly.
19. Force Majeure: Neither Client nor Engineer shall be liable for any fault or delay caused by any contingency beyond their control including but not limited to acts of God, wars, strikes, walkouts, fires, natural calamities, or demands or requirements of governmental agencies.
20. Subcontracts: Engineer may subcontract portions of the work, but each subcontractor must be approved by Client in writing.
21. Access and Permits: Client shall arrange for Engineer to enter upon public and private property and obtain all necessary approvals and permits required from all governmental authorities having jurisdiction over the Project. Client shall pay costs (including Engineer's employee salaries, overhead and fee) incident to any effort by Engineer toward assisting Client in such access, permits or approvals, if Engineer performs such services.
22. Designation of Authorized Representative: Each party (to this Agreement) shall designate one or more persons to act with authority in its behalf in respect to appropriate aspects of the Project. The persons designated shall review and respond promptly to all communications received from the other party.
23. Notices: Any notice or designation required to be given to either party hereto shall be in writing, and unless receipt of such notice is expressly required by the terms hereof

shall be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party to whom such notice is directed at such party's place of business or such other address as either party shall hereafter furnish to the other party by written notice as herein provided.

24. Limit of Liability: The Client and the Engineer have discussed the risks, rewards, and benefits of the project and the Engineer's total fee for services. In recognition of the relative risks and benefits of the Project to both the Client and the Engineer, the risks have been allocated such that the Client agrees that to the fullest extent permitted by law, the Engineer's total aggregate liability to the Client for any and all injuries, claims, costs, losses, expenses, damages of any nature whatsoever or claim expenses arising out of this Agreement from any cause or causes, including attorney's fees and costs, and expert witness fees and costs, shall not exceed the limits of Engineer's insurance coverage as applicable. Such causes included but are not limited to the Engineer's negligence, errors, omissions, strict liability or breach of contract. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.
25. Client's Responsibilities: The Client agrees to provide full information regarding requirements for and about the Project, including a program which shall set forth the Client's objectives, schedule, constraints, criteria, special equipment, systems and site requirements.

The Client agrees to furnish and pay for all legal, accounting and insurance counseling services as may be necessary at any time for the Project, including auditing services which the Client may require to verify the Contractor's Application for Payment or to ascertain how or for what purpose the Contractor has used the money paid by or on behalf of the Client.

The Client agrees to require the Contractor, to the fullest extent permitted by law, to indemnify, hold harmless, and defend the Engineer, its consultants, and the employees and agents of any of them from and against any and all claims, suits, demands, liabilities, losses, damages, and costs ("Losses"), including but not limited to costs of defense, arising in whole or in part out of the negligence of the Contractor, its subcontractors, the officers, employees, agents, and subcontractors of any of them, or anyone for whose acts any of them may be liable, regardless of whether or not such Losses are caused in part by a party indemnified hereunder. Specifically excluded from the foregoing are Losses arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, and the giving of or failure to give directions by the Engineer, its consultants, and the agents and employees of any of them, provided such giving or failure to give is the primary cause of Loss. The Client also agrees to require the Contractor to provide to the Engineer the required certificate of insurance.

The Client further agrees to require the Contractor to name the Engineer, its agents and consultants as additional insureds on the Contractor's policy or policies of comprehensive or commercial general liability insurance. Such insurance shall include products and completed operations and contractual liability coverages, shall be primary and noncontributing with any insurance maintained by the Engineer or its agents and consultants, and shall provide that the Engineer be given thirty days, unqualified written notice prior to any cancellation thereof.

In the event the foregoing requirements, or any of them, are not established by the Client and met by the Contractor, the Client agrees to indemnify and hold harmless the Engineer, its employees, agents, and consultants from and against any and all Losses which would have been indemnified and insured against by the Contractor, but were not.

When Contract Documents prepared under the Scope of Services of this contract require insurance(s) to be provided, obtained and/or otherwise maintained by the Contractor, the Client agrees to be wholly responsible for setting forth any and all such insurance requirements. Furthermore, any document provided for Client review by the Engineer under this Contract related to such insurance(s) shall be considered as sample insurance requirements and not the recommendation of the Engineer. Client agrees to have their own risk management department review any and all insurance requirements for adequacy and to determine specific types of insurance(s) required for the project. Client further agrees that decisions concerning types and amounts of insurance are specific to the project and shall be the product of the Client. As such, any and all insurance requirements made part of Contract Documents prepared by the Engineer are not to be considered the Engineer's recommendation, and the Client shall make the final decision regarding insurance requirements.

26. Information Provided by Others: The Engineer shall indicate to the Client the information needed for rendering of the services of this Agreement. The Client shall provide to the Engineer such information as is available to the Client and the Client's consultants and contractors, and the Engineer shall be entitled to rely upon the accuracy and completeness thereof. The Client recognizes that it is impossible for the Engineer to assure the accuracy, completeness and sufficiency of such information, either because it is impossible to verify, or because of errors or omissions which may have occurred in assembling the information the Client is providing. Accordingly, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Engineer and the Engineer's subconsultants harmless from any claim, liability or cost (including reasonable attorneys' fees and cost of defense) for injury or loss arising or allegedly arising from errors, omissions or inaccuracies in documents or other information provided by the Client to the Engineer.
27. Payment: Client shall be invoiced once each month for work performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. The client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause within said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law, whichever is the lesser) until paid. Client further agrees to pay Engineer's cost of collection of all amounts due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees, as well as costs attributed to suspension of services accordingly and as follows:

Collection Costs: In the event legal action is necessary to enforce the payment provisions of this Agreement, the Engineer shall be entitled to collect from the

Client any judgement or settlement sums due, reasonable attorneys' fees, court costs and expenses incurred by the Engineer in connection therewith and, in addition, the reasonable value of the Engineer's time and expenses spent in connection with such collection action, computed at the Engineer's prevailing fee schedule and expense policies.

Suspension of Services: If the Client fails to make payments when due or otherwise is in breach of this Agreement, the Engineer may suspend performance of services upon five (5) calendar days' notice to the Client. The Engineer shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension caused by any breach of this Agreement by the Client. Client will reimburse Engineer for all associated costs as previously set forth in (Item 4 of) this Agreement.

28. When construction observation tasks are part of the service to be performed by the Engineer under this Agreement, the Client will include the following clause in the construction contract documents and Client agrees not to modify or delete it:

Kotecki Waiver: Contractor (and any subcontractor into whose subcontract this clause is incorporated) agrees to assume the entire liability for all personal injury claims suffered by its own employees, including without limitation claims under the **Illinois** Structural Work Act, asserted by persons allegedly injured on the Project; waives any limitation of liability defense based upon the Worker's Compensation Act, court interpretations of said Act or otherwise; and to the fullest extent permitted by law, agrees to indemnify and hold harmless and defend Owner and Engineer and their agents, employees and consultants (the "Indemnitees") from and against all such loss, expense, damage or injury, including reasonable attorneys' fees, that the Indemnitees may sustain as a result of such claims, except to the extent that **Illinois** law prohibits indemnity for the Indemnitees' own negligence. The Owner and Engineer are designated and recognized as explicit third-party beneficiaries of the Kotecki Waiver within the general contract and all subcontracts entered into in furtherance of the general contract.

29. **Job Site Safety/Supervision & Construction Observation:** The Engineer shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences of procedures, or for safety precautions and programs in connection with the Work since they are solely the Contractor's rights and responsibilities. The Client agrees that the Contractor shall supervise and direct the work efficiently with his/her best skill and attention; and that the Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and safety at the job site. The Client agrees and warrants that this intent shall be carried out in the Client's contract with the Contractor. The Client further agrees that the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work; and that the Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the subject site and all other persons who may be affected thereby. The Engineer shall

have no authority to stop the work of the Contractor or the work of any subcontractor on the project.

When construction observation services are included in the Scope of Services, the Engineer shall visit the site at intervals appropriate to the stage of the Contractor's operation, or as otherwise agreed to by the Client and the Engineer to: 1) become generally familiar with and to keep the Client informed about the progress and quality of the Work; 2) to strive to bring to the Client's attention defects and deficiencies in the Work and; 3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. If the Client desires more extensive project observation, the Client shall request that such services be provided by the Engineer as Additional and Supplemental Construction Observation Services in accordance with the terms of this Agreement.

The Engineer shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the Work, or any agents or employees of any of them. The Engineer does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its Work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

When municipal review services are included in the Scope of Services, the Engineer (acting on behalf of the municipality), when acting in good faith in the discharge of its duties, shall not thereby render itself liable personally and is, to the maximum extent permitted by law, relieved from all liability for any damage that may accrue to persons or property by reason of any act or omission in the discharge of its duties. Any suit brought against the Engineer which involve the acts or omissions performed by it in the enforcement of any provisions of the Client's rules, regulation and/or ordinance shall be defended by the Client until final termination of the proceedings. The Engineer shall be entitled to all defenses and municipal immunities that are, or would be, available to the Client.

30. Insurance and Indemnification: The Engineer and the Client understand and agree that the Client will contractually require the Contractor to defend and indemnify the Engineer and/or any subconsultants from any claims arising from the Work. The Engineer and the Client further understand and agree that the Client will contractually require the Contractor to procure commercial general liability insurance naming the Engineer as an additional named insured with respect to the work. The Contractor shall provide to the Client certificates of insurance evidencing that the contractually required insurance coverage has been procured. However, the Contractor's failure to provide the Client with the requisite certificates of insurance shall not constitute a waiver of this provision by the Engineer.

The Client and Engineer waive all rights against each other and against the Contractor and consultants, agents and employees of each of them for damages to the extent covered by property insurance during construction. The Client and Engineer each shall require similar waivers from the Contractor, consultants, agents

and persons or entities awarded separate contracts administered under the Client's own forces.

31. Hazardous Materials/Pollutants: Unless otherwise provided by this Agreement, the Engineer and Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials/pollutants in any form at the Project site, including but not limited to mold/mildew, asbestos, asbestos products, polychlorinated biphenyl (PCB) or other toxic/hazardous/pollutant type substances.

Furthermore, Client understands that the presence of mold/mildew and the like are results of prolonged or repeated exposure to moisture and the lack of corrective action. Client also understands that corrective action is a operation, maintenance and repair activity for which the Engineer is not responsible.



February 16, 2016

Chris Bong
City of St. Charles
Development Engineering Division Manager
2 E. Main Street
St. Charles, Illinois 60174

Re: Prairie Center Water Modeling
Professional Services Letter Agreement and Exhibits

Dear Mr. Bong,

Trotter and Associates, Inc. (ENGINEER) is pleased to provide professional services to the City of St. Charles (CLIENT) for the Prairie Center Water Modeling (hereinafter referred to as the "PROJECT").

Project Background and Understanding

The City of St. Charles is currently reviewing conceptual plans for the proposed Prairie Center Development located along Illinois Route 38 and Prairie Street. The development generally consists of 14 multi-unit residential buildings, five commercial buildings, and three mixed-use commercial/residential buildings. There is a total of 21,300 square feet of residential properties and 54,600 square feet of retail properties.

The City has requested that TAI incorporate the proposed watermain improvements into the City's WaterCAD[®] model. The model will be run to simulate the average and maximum day demands to determine the available fire flow throughout the development, as well as residual pressures. The results of this model will be reported in an engineering memo, including tabular format listing the acceptability of fire flows relative to IBC and NFPA requirements.

Scope of Services

Our services will consist of customary civil engineering and surveying services and related engineering services incidental thereto, described as follows;

A. Engineer Shall:

1. Meet with the CLIENT to review and confirm project scope and collect pertinent data including proposed development plans and any additional water atlas information necessary.
2. Update the City's WaterCAD model to reflect the proposed Prairie Center development. Additional demands will be based off of residential and commercial densities provided.
3. Run the model under average day and maximum day demand conditions to determine the available fire flows at each building, as well as residual pressures.
4. Provide an engineering memo detailing the results of the WaterCAD analysis including fire flows throughout the development.

Compensation

An amount equal to the cumulative hours charged to the Project by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus Reimbursable Expenses and ENGINEER's Consultant's charges, if any.

ENGINEER's Reimbursable Expenses Schedule and Standard Hourly Rates are attached to this Exhibit B.

The total compensation for services will not exceed **\$4,300.00** based on the following distribution of compensation:

WaterCAD Modeling & Report	\$4,300.00
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ENGINEER may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by CLIENT. The total estimated compensation for ENGINEER's services included in the breakdown by phases incorporates all labor, overhead, profit, Reimbursable Expenses and ENGINEER's Consultant's charges. The amounts billed for ENGINEER's services will be based on the cumulative hours charged to the PROJECT during the billing period by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and ENGINEER's Consultant's charges. The Standard Hourly Rates and Reimbursable Expenses Schedule will be adjusted annually as of January 1st to reflect equitable changes in the compensation payable to ENGINEER.

Miscellaneous

This Agreement constitutes the entire agreement between the parties and supersedes any prior oral or written representations. This agreement may not be changed, modified, or amended except in writing signed by both parties. In the event of any conflict among the exhibits, the exhibit of the latest date shall control.

ENGINEER may have portions of the Services performed by its affiliated entities or their employees, in which event ENGINEER shall be responsible for such services and CLIENT shall look solely to ENGINEER as if ENGINEER performed the Services. In no case shall CLIENT'S approval of any subcontract relieve ENGINEER of any of its obligations under this Agreement. However, ENGINEER is not responsible whatsoever for any obligations its subcontractors might have to its [subcontractors'] employees, including but not limited to proper compensation of its employees.

In the event CLIENT uses a purchase order form or other CLIENT developed document to administer this Agreement, the use of such documents shall be for the CLIENT's convenience only, and any provisions, terms or conditions within the CLIENT developed document shall be deemed stricken, null and void. Any provisions, terms or conditions which the CLIENT would like to reserve shall be added to Exhibit C – Supplemental Conditions and agreed to by both parties.

ENGINEER acknowledges that this project and the scope of work performed thereto will require ENGINEER and all lower tiered subcontractors of ENGINEER to comply with all obligations under and pursuant to the any applicable local, state and/or federal prevailing wage laws (e.g. Davis-Bacon Act, Illinois Prevailing Wage Act, etc.), including but not limited to all wage, notice and/or record keeping requirements to the extent applicable, necessitated and required by law.

If during negotiations or discussion with a Client it becomes clear that Client has determined prevailing wages are not applicable to the work performed by Trotter & Associates, it is best to confirm that understanding in writing with appropriate indemnification language. The following is draft language to consider:

Trotter & Associates' services performed is based on its understanding through the actions, statements and/or omissions of CLIENT that this project [identify] and the work performed relating thereto is professional in nature and not subject to prevailing wage requirements (federal, state or local). If Trotter & Associates' understanding is incorrect, CLIENT agrees and acknowledges that it shall immediately notify Trotter & Associates in writing within forty-eight (48) hours from receiving this notice so that Trotter & Associates may submit a revised proposal and/or invoice reflecting the additional costs associated with applicable prevailing wage laws. If at any time it is determined that this project is or was subject to prevailing wage requirements under federal, state or local law, then CLIENT agrees and acknowledges that it shall reimburse and make whole Trotter & Associates for any back wages, penalties and/or interest owed to its employees or any other third party, including any appropriate governmental agency. CLIENT also agrees that prices, costs and/or applicable fees will also be increased prospectively as required by the increase in wage payments to Trotter & Associates' employees. CLIENT understands and acknowledges that it shall notify Trotter & Associates of any prevailing wage requirements or obligations under applicable laws relating to the work or services performed by Trotter & Associates. CLIENT also agrees to indemnify and hold Trotter & Associates harmless from any error, act or omission on its part with regard to prevailing wage notification that causes any claim, cause of action, harm or loss upon Trotter & Associates, including but not limited to prompt reimbursement to Trotter & Associates of any and all back wages, penalties and/or interest owed to its employees or any other third party, including reasonable attorneys' fees and costs associated with such claim, cause of action, harm or loss.

Contents of Agreement

This Letter Agreement and the Exhibits attached hereto and incorporated herein, represent the entire understanding with respect to the Project and may only be modified in writing signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

City of St. Charles:

Trotter and Associates, Inc.:

By: _____

By: Chris Marschinke, P.E.

Title: _____

Title: Project Engineer

Effective Date: _____

Date Signed:

Address for giving notices:

Address for giving notices:

40W201 Wasco Road, Suite D.
St. Charles, Illinois 60175

Designated Representative

Designated Representative

Colin Shulick

Title:

Title: Vice-President

Phone Number:

Phone Number: 630/587-0470

Facsimile Number:

Facsimile Number: 630/587-0475

E-Mail Address:

E-Mail Address: c.shulick@trotter-inc.com

ATTACHMENTS:

EXHIBIT A – STANDARD TERMS AND CONDITIONS

EXHIBIT B – SCHEDULE OF HOURLY RATES AND REIMBURSIBLE EXPENSES

EXHIBIT C – SUPPLEMENTAL GENERAL CONDITIONS

EXHIBIT D – CONTRACT ADDENDUM

CLIENT Initial _____

TAI Initial _____



EXHIBIT A - STANDARD TERMS AND CONDITIONS

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ARTICLE 1 - SERVICES OF ENGINEER

1.01 Scope

- A. ENGINEER shall provide the Professional Services set forth herein and in the Letter Agreement.

- B. Upon this Agreement becoming effective, ENGINEER is authorized to begin Services.

ARTICLE 2 - CLIENT'S RESPONSIBILITIES

2.01 General

- A. Provide ENGINEER with all criteria and full information as to CLIENT's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which CLIENT will require to be included in the Drawings and Specifications; and furnish copies of CLIENT's standard forms, conditions, and related documents for ENGINEER to include in the Bidding Documents, when applicable.
- B. Furnish to ENGINEER any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.
- C. Following ENGINEER's assessment of initially-available Project information and data and upon ENGINEER's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable ENGINEER to complete its Basic and Additional Services. Such additional information or data would generally include the following:
1. Property descriptions.
 2. Zoning, deed, and other land use restrictions.
 3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
 4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
 5. Environmental assessments, audits, investigations and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas.
 6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.
- D. Give prompt written notice to ENGINEER whenever CLIENT observes or otherwise becomes aware of a Hazardous Environmental Condition or of any other development that affects the scope or time of performance of ENGINEER's services, or any defect or nonconformance in ENGINEER's services or in the work of any Contractor.

- E. Authorize ENGINEER to provide Additional Services as set forth in Exhibit D - Addendum of the Agreement as required.
- F. Arrange for safe access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform services under the Agreement.
- G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by ENGINEER (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as CLIENT deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by ENGINEER and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- I. Provide, as required for the Project:
1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
 2. Legal services with regard to issues pertaining to the Project as CLIENT requires, Contractor raises, or ENGINEER reasonably requests.
 3. Such auditing services as CLIENT requires to ascertain how or for what purpose Contractor has used the moneys paid.
 4. Placement and payment for advertisement for Bids in appropriate publications.
- J. Advise ENGINEER of the identity and scope of services of any independent consultants employed by CLIENT to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.
- K. Furnish to ENGINEER data as to CLIENT's anticipated costs for services to be provided by others for CLIENT so that ENGINEER may make the necessary calculations to develop and periodically adjust ENGINEER's opinion of Total Project Costs.
- L. If CLIENT designates a manager or an individual or entity other than, or in addition to, ENGINEER to represent CLIENT at the Site, the duties, responsibilities, and limitations of authority of such other party shall be disclosed to the ENGINEER and coordinated in relation to the duties, responsibilities, and authority of ENGINEER.
- M. If more than one prime contract is to be awarded for the Work designed or specified by ENGINEER, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of ENGINEER is to be mutually agreed upon and made a part of this Agreement before such services begin.
- N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.
- O. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of Samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of CLIENT, prior to their incorporation into the Work with appropriate professional interpretation thereof.
- P. Provide inspection or monitoring services by an individual or entity other than ENGINEER (and disclose the identity of such individual or entity to ENGINEER) as CLIENT determines necessary to verify:
1. That Contractor is complying with any Laws and Regulations applicable to Contractor's performing and furnishing the Work.
 2. That Contractor is taking all necessary precautions for safety of persons or property and complying with any special provisions of the Contract Documents applicable to safety.
- Q. Provide ENGINEER with the findings and reports generated by the entities providing services pursuant to paragraphs 2.01.O and P.

ARTICLE 3 - TIMES FOR RENDERING SERVICES

3.01 General

- A. ENGINEER's services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion. Unless specific periods of time or specific dates for providing services are specified in this Agreement, ENGINEER's obligation to render services hereunder will be for a period which may reasonably be required for the completion of said services.
- B. If in this Agreement specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided, and if such periods of time or dates are changed through no fault of ENGINEER, the rates and amounts of compensation provided for herein shall be subject to equitable adjustment. If CLIENT has requested changes in the scope, extent, or character of the Project, the time of performance of ENGINEER's services shall be adjusted equitably.
- C. For purposes of this Agreement the term "day" means a calendar day of 24 hours.

3.02 Suspension

- A. If CLIENT fails to give prompt written authorization to proceed with any phase of services after completion of the immediately preceding phase, or if ENGINEER's services are delayed through no fault of ENGINEER, ENGINEER may, after giving seven days written notice to CLIENT, suspend services under this Agreement.
- B. If ENGINEER's services are delayed or suspended in whole or in part by CLIENT, or if ENGINEER's services are extended by Contractor's actions or inactions for more than 90 days through no fault of ENGINEER, ENGINEER shall be entitled to equitable adjustment of rates and amounts of compensation provided for elsewhere in this Agreement to reflect, reasonable

costs incurred by ENGINEER in connection with, among other things, such delay or suspension and reactivation and the fact that the time for performance under this Agreement has been revised.

ARTICLE 4 - PAYMENTS TO ENGINEER

4.01 Methods of Payment for Services and Reimbursable Expenses of ENGINEER

- A. *For Basic Services.* CLIENT shall pay ENGINEER for Basic Services performed or furnished under as outlined in the Letter Agreement
- B. *For Additional Services.* CLIENT shall pay ENGINEER for Additional Services performed or furnished as outlined in Exhibit D.
- C. *For Reimbursable Expenses.* CLIENT shall pay ENGINEER for Reimbursable Expenses incurred by ENGINEER and ENGINEER's Consultants as set forth in Exhibit B.

4.02 Other Provisions Concerning Payments

- A. *Preparation of Invoices.* Invoices will be prepared in accordance with ENGINEER's standard invoicing practices and will be submitted to CLIENT by ENGINEER, unless otherwise agreed.
- B. *Payment of Invoices.* Invoices are due and payable within 30 days of receipt. If CLIENT fails to make any payment due ENGINEER for services and expenses within 30 days after receipt of ENGINEER's invoice therefor, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, ENGINEER may, after giving seven days written notice to CLIENT, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses, and other related charges. Payments will be credited first to interest and then to principal.
- C. *Disputed Invoices.* In the event of a disputed or contested invoice, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.
- D. *Payments Upon Termination.*
 - 1. In the event of any termination under paragraph 6.06, ENGINEER will be entitled to invoice CLIENT and will be paid in accordance with Exhibit B for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination.
 - 2. In the event of termination by CLIENT for convenience or by ENGINEER for cause, ENGINEER, in addition to invoicing for those items identified in subparagraph 4.02.D.1, shall be entitled to invoice CLIENT and shall be paid a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with ENGINEER's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit B.
- E. *Records of ENGINEER's Costs.* Records of ENGINEER's costs pertinent to ENGINEER's compensation under this Agreement shall be kept in accordance with generally accepted accounting

practices. To the extent necessary to verify ENGINEER's charges and upon CLIENT's timely request, copies of such records will be made available to CLIENT at cost.

- F. *Legislative Actions.* In the event of legislative actions after the Effective Date of the Agreement by any level of government that impose taxes, fees, or costs on ENGINEER's services or other costs in connection with this Project or compensation therefore, such new taxes, fees, or costs shall be invoiced to and paid by CLIENT as a Reimbursable Expense to which a Factor of 1.0 shall be applied. Should such taxes, fees, or costs be imposed, they shall be in addition to ENGINEER's estimated total compensation.

ARTICLE 5 - OPINIONS OF COST

5.01 Opinions of Probable Construction Cost

- A. ENGINEER's opinions of probable Construction Cost provided for herein are to be made on the basis of ENGINEER's experience and qualifications and represent ENGINEER's best judgment as an experienced and qualified professional generally familiar with the industry. However, since ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, ENGINEER cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by ENGINEER. If CLIENT wishes greater assurance as to probable Construction Cost, CLIENT shall employ an independent cost estimator.

5.02 Designing to Construction Cost Limit

- A. If a Construction Cost limit is established between CLIENT and ENGINEER, such Construction Cost limit and a statement of ENGINEER's rights and responsibilities with respect thereto will be specifically set forth in Exhibit C - Supplemental General Conditions.

5.03 Opinions of Total Project Costs

- A. ENGINEER assumes no responsibility for the accuracy of opinions of Total Project Costs.

ARTICLE 6 - GENERAL CONSIDERATIONS

6.01 Standards of Performance

- A. The standard of care for all professional engineering and related services performed or furnished by ENGINEER under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.
- B. ENGINEER shall be responsible for the technical accuracy of its services and documents resulting therefrom, and CLIENT shall not be responsible for discovering deficiencies therein. ENGINEER shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in CLIENT-furnished information.

- C. ENGINEER shall perform or furnish professional engineering and related services in all phases of the Project to which this Agreement applies. ENGINEER shall serve as CLIENT's prime professional for the Project. ENGINEER may employ such ENGINEER's Consultants as ENGINEER deems necessary to assist in the performance or furnishing of the services. ENGINEER shall not be required to employ any ENGINEER's Consultant unacceptable to ENGINEER.
- D. ENGINEER and CLIENT shall comply with applicable Laws or Regulations and CLIENT-mandated standards. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to CLIENT's responsibilities or to ENGINEER's scope of services, times of performance, or compensation.
- E. CLIENT shall be responsible for, and ENGINEER may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by CLIENT to ENGINEER pursuant to this Agreement. ENGINEER may use such requirements, reports, data, and information in performing or furnishing services under this Agreement.
- F. CLIENT shall make decisions and carry out its other responsibilities in a timely manner and shall bear all costs incident thereto so as not to delay the services of ENGINEER.
- G. Prior to the commencement of the Construction Phase, CLIENT shall notify ENGINEER of any other notice or certification that ENGINEER will be requested to provide to CLIENT or third parties in connection with the Project. CLIENT and ENGINEER shall reach agreement on the terms of any such requested notice or certification, and CLIENT shall authorize such Additional Services as are necessary to enable ENGINEER to provide the notices or certifications requested.
- H. ENGINEER shall not be required to sign any documents, no matter by whom requested, that would result in the ENGINEER's having to certify, guarantee or warrant the existence of conditions whose existence the ENGINEER cannot ascertain. CLIENT agrees not to make resolution of any dispute with the ENGINEER or payment of any amount due to the ENGINEER in any way contingent upon the ENGINEER's signing any such certification.
- I. During the Construction Phase, ENGINEER shall not supervise, direct, or have control over Contractor's work, nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.
- J. ENGINEER neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.
- K. ENGINEER shall not be responsible for the acts or omissions of any Contractor(s), subcontractor or supplier, or of any of the Contractor's agents or employees or any other persons (except ENGINEER's own employees) at the Site or otherwise furnishing or performing any of the Contractor's work; or for any decision made on interpretations or clarifications of the Contract Documents given by CLIENT without consultation and advice of ENGINEER.

- L. The General Conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (Document No. 1910-8, 1996 Edition) unless both parties mutually agree to use other General Conditions.

6.02 Authorized Project Representatives

- A. Contemporaneous with the execution of this Agreement, ENGINEER and CLIENT shall designate specific individuals to act as ENGINEER's and CLIENT's representatives with respect to the services to be performed or furnished by ENGINEER and responsibilities of CLIENT under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.

6.03 Design without Construction Phase Services

- A. Should CLIENT provide Construction Phase services with either CLIENT's representatives or a third party, ENGINEER's Basic Services under this Agreement will be considered to be completed upon completion of the Final Design Phase or Bidding or Negotiating Phase as outlined in the Letter Agreement.
- B. It is understood and agreed that if ENGINEER's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, and that such services will be provided by CLIENT, then CLIENT assumes all responsibility for interpretation of the Contract Documents and for construction observation or review and waives any claims against the ENGINEER that may be in any way connected thereto.

6.04 Use of Documents

- A. All Documents are instruments of service in respect to this Project, and ENGINEER shall retain an ownership and property interest therein (including the right of reuse at the discretion of the ENGINEER) whether or not the Project is completed.
- B. Copies of CLIENT-furnished data that may be relied upon by ENGINEER are limited to the printed copies (also known as hard copies) that are delivered to the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by CLIENT to ENGINEER are only for convenience of ENGINEER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- C. Copies of Documents that may be relied upon by CLIENT are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to CLIENT are only for convenience of CLIENT. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- D. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the

electronic files. ENGINEER shall not be responsible to maintain documents stored in electronic media format after acceptance by CLIENT.

- E. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of this Project.
- F. CLIENT may make and retain copies of Documents for information and reference in connection with use on the Project by CLIENT. Such Documents are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project. Any such reuse or modification without written verification or adaptation by ENGINEER, as appropriate for the specific purpose intended, will be at CLIENT's sole risk and without liability or legal exposure to ENGINEER or to ENGINEER's Consultants. CLIENT shall indemnify and hold harmless ENGINEER and ENGINEER's Consultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting therefrom.
- G. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- H. Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle ENGINEER to further compensation at rates as defined in Exhibit B.

6.05 Insurance

- A. ENGINEER shall procure and maintain insurance as set forth below:
 - 1. Workers Compensation & Employer's Liability
 - a. Each Occurrence: \$1,000,000
 - 2. General Liability
 - a. Each Occurrence: \$1,000,000
 - b. General Aggregate: \$2,000,000
 - 3. Excess or Umbrella Liability
 - a. Each Occurrence: \$5,000,000
 - b. General Aggregate: \$5,000,000
 - 4. Automobile Liability
 - a. Combined Single Limit (Bodily Injury and Property Damage):
Each Accident \$1,000,000
 - 5. Professional Liability
 - a. Each Occurrence: \$2,000,000
 - b. General Aggregate: \$2,000,000
- B. CLIENT shall cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by CLIENT which are applicable to the Project.
- C. CLIENT shall require Contractor to purchase and maintain general liability and other insurance as specified in the Contract Documents and to cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project

- D. CLIENT and ENGINEER shall each deliver to the other certificates of insurance evidencing the coverage.
- E. All policies of property insurance shall contain provisions to the effect that ENGINEER's and ENGINEER's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder.
- F. At any time, CLIENT may request that ENGINEER, at CLIENT's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective. If so requested by CLIENT, with the concurrence of ENGINEER, and if commercially available, ENGINEER shall obtain and shall require ENGINEER's Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by CLIENT.

6.06 Termination

- A. The obligation to provide further services under this Agreement may be terminated:
1. *For cause,*
 - a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.
 - b. By ENGINEER:
 - 1) upon seven days written notice if ENGINEER believes that ENGINEER is being requested by CLIENT to furnish or perform services contrary to ENGINEER's responsibilities as a licensed professional; or
 - 2) upon seven days written notice if the ENGINEER's services for the Project are delayed or suspended for more than 90 days for reasons beyond ENGINEER's control.
 - 3) ENGINEER shall have no liability to CLIENT on account of such termination.
 - c. Notwithstanding the foregoing, this Agreement will not terminate as a result of such substantial failure if the party receiving such notice begins, within seven days of receipt of such notice, to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.
 2. *For convenience,*
 - a. By CLIENT effective upon the receipt of notice by ENGINEER.
- B. The terminating party under paragraphs 6.06.A.1 or 6.06.A.2 may set the effective date of termination at a time up to 30 days later than otherwise provided to allow ENGINEER to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

6.07 Controlling Law

- A. This Agreement is to be governed by the law of the state in which the Project is located.

6.08 Successors, Assigns, and Beneficiaries

- A. CLIENT and ENGINEER each is hereby bound and the partners, successors, executors, administrators and legal representatives of CLIENT and ENGINEER (and to the extent permitted by paragraph 6.08.B the assigns of CLIENT and ENGINEER) are hereby bound to the other party to this Agreement and to the partners, successors, executors,

administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of this Agreement.

- B. Neither CLIENT nor ENGINEER may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise in this Agreement:
1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by CLIENT or ENGINEER to any Contractor, Contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.
 2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of CLIENT and ENGINEER and not for the benefit of any other party. The CLIENT agrees that the substance of the provisions of this paragraph 6.08.C shall appear in the Contract Documents.

6.09 Dispute Resolution

- A. CLIENT and ENGINEER agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to exercising their rights under provisions of this Agreement, or under law. In the absence of such an agreement, the parties may exercise their rights under law.
- B. If and to the extent that CLIENT and ENGINEER have agreed on a method and procedure for resolving disputes between them arising out of or relating to this Agreement, such dispute resolution method and procedure is set forth in Exhibit C, "Supplemental Conditions."

6.10 Hazardous Environmental Condition

- A. CLIENT represents to Engineer that to the best of its knowledge a Hazardous Environmental Condition does not exist.
- B. CLIENT has disclosed to the best of its knowledge to ENGINEER the existence of all Asbestos, PCB's, Petroleum, Hazardous Waste, or Radioactive Material located at or near the Site, including type, quantity and location.
- C. If a Hazardous Environmental Condition is encountered or alleged, ENGINEER shall have the obligation to notify CLIENT and, to the extent of applicable Laws and Regulations, appropriate governmental officials.
- D. It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a Hazardous Environmental Condition. In the event ENGINEER or any other party encounters a Hazardous Environmental Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until CLIENT: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Hazardous Environmental Condition; and (ii)

warrants that the Site is in full compliance with applicable Laws and Regulations.

- E. CLIENT acknowledges that ENGINEER is performing professional services for CLIENT and that ENGINEER is not and shall not be required to become an “arranger,” “operator,” “generator,” or “transporter” of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the Site in connection with ENGINEER’s activities under this Agreement.
- F. If ENGINEER’s services under this Agreement cannot be performed because of a Hazardous Environmental Condition, the existence of the condition shall justify ENGINEER’s terminating this Agreement for cause on 30 days notice.

6.11 Allocation of Risks

A. Indemnification

1. To the fullest extent permitted by law, ENGINEER shall indemnify and hold harmless CLIENT, CLIENT’s officers, directors, partners, and employees from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of ENGINEER or ENGINEER’s officers, directors, partners, employees, and ENGINEER’s Consultants in the performance and furnishing of ENGINEER’s services under this Agreement.
2. To the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER, ENGINEER’s officers, directors, partners, employees, and ENGINEER’s Consultants from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of CLIENT or CLIENT’s officers, directors, partners, employees, and CLIENT’s consultants with respect to this Agreement or the Project.
3. To the fullest extent permitted by law, ENGINEER’s total liability to CLIENT and anyone claiming by, through, or under CLIENT for any cost, loss, or damages caused in part by the negligence of ENGINEER and in part by the negligence of CLIENT or any other negligent entity or individual, shall not exceed the percentage share that ENGINEER’s negligence bears to the total negligence of CLIENT, ENGINEER, and all other negligent entities and individuals.
4. In addition to the indemnity provided under paragraph 6.11.A.2 of this Agreement, and to the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER and its officers, directors, partners, employees, and ENGINEER’s Consultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from a Hazardous Environmental Condition, provided that (i) any such cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other

than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph 6.11.A.4 shall obligate CLIENT to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence or willful misconduct.

5. The indemnification provision of paragraph 6.11.A.1 is subject to and limited by the provisions agreed to by CLIENT and ENGINEER in Exhibit C, “Supplemental Conditions,” if any.

6.12 Notices

- A. Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

6.13 Survival

- A. All express representations, indemnifications, or limitations of liability included in this Agreement will survive its completion or termination for any reason.

6.14 Severability

- A. Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and ENGINEER, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

6.15 Waiver

- A. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

6.16 Headings

- A. The headings used in this Agreement are for general reference only and do not have special significance.

6.16 Definitions

- A. Defined terms will be in accordance with EJCDC No. 1910-1 (1996 Edition)

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CLIENT Initial _____

TAI Initial _____

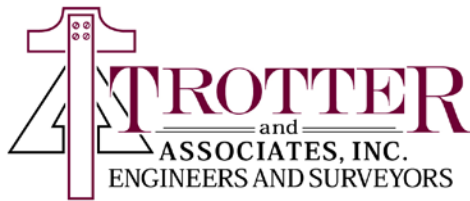


EXHIBIT B
SCHEDULE OF HOURLY RATES AND REIMBURSABLE EXPENSES

2016 Schedule of Hourly Rates**2016 Reimbursable Expenses**

Classification	Billing Rate	Item	Unit	Unit Price
Principal	\$224.00	Engineering Copies 1- 249 Sq. Ft.	Sq. Ft.	\$0.29
Senior Project Manager	\$214.00			
Project Manager	\$189.00	Engineering Copies 250-999 Sq. Ft.	Sq. Ft.	\$0.27
Professional Land Surveyor	\$179.00	Engineering Copies 1000-3999 Sq. Ft.	Sq. Ft.	\$0.25
Project Coordinator	\$179.00			
Senior Project Engineer	\$179.00	Engineering Copies 3999 Sq. Ft. & Up	Sq. Ft.	\$0.23
Engineer Level IV	\$166.00	Mylar Engineering Copies up to 24" by 36"	Each	\$8.00
Engineer Level III	\$149.00			
Engineer Level II	\$130.00	Color Presentation Grade Large Format Print	Sq. Ft.	\$5.15
Engineer Level I	\$110.00	Comb Binding > 120 Sheets	Each	\$4.75
Engineering Intern	\$51.00	Comb Binding < 120 Sheets	Each	\$3.50
Senior Technician	\$155.00	Binding Strips (Engineering Plans)	Each	\$1.00
Technician Level IV	\$134.00	5 Mil Laminating	Each	\$1.25
Technician Level III	\$122.00	Copy 11" x 17" - Color	Each	\$0.50
Technician Level II	\$109.00			
Technician Level I	\$96.00	Copy 11" x 17" - Black and White	Each	\$0.25
Clerical Level II	\$75.00	Copy 8.5" x 11" - Color	Each	\$0.25
Clerical Level I	\$63.00			
Survey Crew Chief	\$151.00	Copy 8.5" x 11" - Black and White	Each	\$0.12
Survey Technician Level II	\$80.00	Recorded Documents	Each	\$25.00
Survey Technician Level I	\$65.00	Plat Research	Time and Material	
Prevailing Wage Survey Foreman**	\$181.00	Per Diem	Each Day	\$30.00
Prevailing Wage Survey Worker**	\$176.00	Field / Survey Truck	Each Day	\$45.00
Sub Consultants	Cost Plus 5%	Postage and Freight		Cost
		Mileage	Per Mile	Federal Rate

***Rates will be escalated for Overtime & Holiday Pay to adjust for Premium Time based on the current Illinois Department of Labor Rules*

Note: On January 1st of each year, the fees and hourly rates may be escalated by an amount not to exceed five (5) percent.

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CLIENT Initial _____
TAI Initial _____



**EXHIBIT C
SUPPLEMENTAL CONDITIONS**

NONE AT THIS TIME

CLIENT Initial _____

TAI Initial _____



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CLIENT Initial _____

TAI Initial _____



**EXHIBIT D
CONTRACT ADDENDUM**

Project Name: _____

Project No. _____

Addendum No. _____

This is an addendum attached to, made part of and incorporated by reference into the Agreement between CLIENT and ENGINEER for modification of scope and compensation for the PROJECT. All other terms and conditions of the original Agreement between CLIENT and ENGINEER are unchanged by this Contract Addendum and shall remain in full force and effect and shall govern the obligations of both CLIENT and ENGINEER, including obligations created by this Contract Addendum.

The contract modifications are described below:

- 1.
- 2.
- 3.

CONTRACT SUMMARY

Original Contract Amount \$ _____

Changes Prior to This Change \$ _____

Amount of This Change \$ _____

Revised Contract Amount: \$ _____

For purposes of expediency, ENGINEER and CLIENT agree that an executed electronic version of this Contract Addendum shall suffice. The original of this Contract Addendum shall be returned to ENGINEER after execution.

CLIENT:

ENGINEER:

[]

TROTTER AND ASSOCIATES, INC.

SIGNED:

TITLE

TITLE

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EXHIBIT A
City of St Charles - Prairie Centre
Traffic Impact Study
Anticipated Scope of Services

The project consists of a proposed mixed-use development on IL Route 38 east of Randall Road in St Charles, IL. No new access points are proposed. HLR's scope of services will include traffic counts at 16 public intersections, data collection and analysis, observation and analysis of existing and anticipated traffic operations, and preparation of a traffic impact study summarizing the analyses and recommendations. Attendance at one meeting with a presentation at the City of St Charles is included. Additional meeting attendance is optional (see Optional Services). This scope does not include revisions due to changes in the Developer's plans or land use assumptions, origin-destination studies, detailed cut-through analyses, detailed traffic calming analyses, detailed site circulation analyses, etc.

Task	Description	Hours by Employee Classification			Direct Costs	Fee
		E5	E3	E2		
I. Data Collection						
a.	Coordinate with City and Developer to obtain site plans, land use assumptions, and other relevant information affecting the study. One set of land use assumptions is to be used for this study. Any changes by the Developer to the land use assumptions will necessitate revisions to all study work completed up to the time the changes are directed. Such revisions are not included in this scope.		4		\$	484.00
b.	Collect existing signal timing data and existing roadway network details from IDOT (Illinois Dept of Transportation) and KDOT (Kane County Division of Transportation) and via site visit.		8	\$10.80	\$	968.00
c.	Conduct peak hour traffic counts at 13 intersections. Video counts to be provided by a subconsultant. Counts will be conducted during weekday peak traffic periods from 6:00 to 9:00 am and 3:30 to 6:30 pm and on a Saturday from 11:00 am to 2:00 pm. <i>Direct costs for subconsultant fee.</i>		0.5		\$	54.50
	1) IL Route 38 & Randall Road			\$	1,025.00	
	2) IL Route 38 & Jewel Right-in/Right-out Driveway			\$	680.00	
	3) IL Route 38 & West Mall Entrance			\$	680.00	
	4) IL Route 38 & East Mall Entrance/Vanderbilt Drive			\$	680.00	

Task	Description	Hours by Employee Classification			Direct Costs	Fee
		E5	E3	E2		
	5) IL Route 38 & 14th Street/Bricher Road				\$ 680.00	
	6) 14th Street & Mall Drive/Vanderbilt Drive				\$ 680.00	
	7) 14th Street & Covington Court/Horne Street				\$ 680.00	
	8) Prairie Street & 16th Street				\$ 680.00	
	9) Prairie Street & Covington Court/Wessel Court				\$ 680.00	
	10) Prairie Street & East Mall Driveway (KinderCare)				\$ 680.00	
	11) Prairie Street & West Mall Driveway				\$ 680.00	
	12) Prairie Street & Jewel/La Huerta Driveway				\$ 680.00	
	13) Randall Road & Prairie Street				\$ 680.00	
d.	Conduct 13-hour weekday and Saturday peak hour counts at 3 intersections. Video Counts to be provided by subconsultant. Counts will be from on a weekday 6:00 am to 7:00 pm and on a Saturday from 11:00 am to 2:00 pm. <i>Direct costs for subconsultant fee.</i>			0.5	\$	54.50
	1) Prairie Street & 14th Street				\$ 1,055.00	
	2) Prairie Street & 7th Street				\$ 1,055.00	
	3) Prairie Street & 3rd Street				\$ 1,055.00	
Task I Sub-Total =		0	12	1	\$ 12,360.80	\$ 1,561.00

II. Data Analysis and Traffic Study

a.	Compile traffic count data, balance volumes, and make other appropriate adjustments to establish Existing Traffic.			4	\$	436.00
b.	Using HCS (Highway Capacity Software) and Synchro, conduct intersection capacity analysis of weekday AM and PM and Saturday peak period Existing Traffic at the 16 intersections noted in task I.	2	2	10	\$	1,640.00
c.	Calculate Projected Traffic (Future No-build Condition), using growth rates provided by CMAP (Chicago Metropolitan Agency for Planning) to estimate ten-year background traffic growth.			4	\$	436.00
d.	Using HCS and Synchro, conduct intersection capacity analysis of weekday AM and PM and Saturday peak period Projected Traffic at the 16 intersections noted in task I.		2	10	\$	1,332.00

Task	Description	Hours by Employee Classification			Direct Costs	Fee
		E5	E3	E2		
e.	Calculate anticipated weekday AM and PM and Saturday peak hour and daily site-generated trips, including new trips, internal capture, and pass-by trips (Full Build-out Condition), using the current ITE (Institute of Transportation Engineers) <i>Trip Generation</i> rates.		2	8	\$	1,114.00
f.	Develop directional distribution and assign site traffic for weekday AM and PM and Saturday peak hours at site driveways and nearby major intersections to establish Total Traffic.		1	4	\$	557.00
g.	Using HCS and Synchro, conduct intersection capacity analysis of weekday AM and PM and Saturday peak period Total Traffic at the 16 intersections noted in task I, assuming no improvements to the existing roadway network.		2	14	\$	1,768.00
h.	Using HCS and Synchro, conduct intersection capacity analysis of weekday AM and PM and Saturday peak period Total Traffic at the 16 intersections noted in task I, assuming recommended improvements to the existing roadway network based on Task II.i.		2	14	\$	1,768.00
i.	Evaluate traffic signal warrants found in Chapter 4C of the current MUTCD (Manual on Uniform Traffic Control Devices) based on Existing Traffic, Projected Traffic, and Total Traffic for the three intersections listed in Task I.d.			8	\$	872.00
j.	Prepare a traffic impact study report with illustrative exhibits summarizing the analyses, findings and recommendations of the traffic study.	4	8	36	\$	5,508.00
Task II Sub-Total =		6	19	112	\$ -	\$ 15,431.00
III. Coordination and Meetings						
a.	Coordination with City, Developer, etc. (phone calls, email).		16		\$	1,936.00
b.	Prepare for and attend a kick-off meeting with the City and site developer at St Charles City Hall. <i>Direct costs for mileage.</i>		6		\$9.72	\$ 726.00
c.	Prepare for and attend one Plan Commission meeting at St Charles City Hall to present study findings and answer questions. <i>Direct costs for mileage.</i>		16		\$9.72	\$ 1,936.00

Task	Description	Hours by Employee Classification			Direct Costs	Fee
		E5	E3	E2		
d.	Prepare for and attend one additional the Plan Commission <i>or</i> City Council meeting at St Charles City Hall to assist City Staff and answer questions. <i>Presentation not included. Direct costs for mileage.</i>		6		\$9.72	\$ 726.00
e.	Prepare for and attend one coordination/review meeting at IDOT District 1 offices in Schaumburg. <i>Direct costs for mileage.</i>		8		\$17.28	\$ 968.00
f.	Prepare for and attend one additional daytime meeting at St Charles City Hall. <i>Direct costs for mileage.</i>		4		\$9.72	\$ 484.00
g.	Project administration (account setup, resource scheduling, budgeting, invoicing, QAQC).	24				\$ 3,696.00
Task III Sub-Total =		24	56	0	\$ 56.16	\$ 10,472.00
IV. Additional Tasks						
a.	Compare site-generated traffic volumes to traffic volumes generated assuming current year full occupancy of demolished St Charles Mall, which previously occupied site, using current ITE Trip Generation rates.		4			\$ 484.00
b.	Compare site-generated traffic volumes to traffic volumes generated assuming current year full occupancy of site based on current zoning, as directed by City Staff, using current ITE Trip Generation rates.		4			\$ 484.00
c.	Prepare commentary on impacts of KDOT's planned widening of Randall Road on results of Task II.j.			4		\$ 436.00
d.	Prepare commentary on cut-through traffic, traffic calming, and on-site traffic circulation.			6		\$ 654.00
Task III Sub-Total =		0	8	10	\$ -	\$ 2,058.00
Subtotals Engineering Hours & Fee =		30	95	123		\$ 29,522.00
Direct Costs (Traffic Counts) =						\$ 12,350.00
Direct Costs (Vehicle Expense) =						\$ 66.96
TOTAL FEE =						\$ 41,938.96

HLR to St Charles City Hall = 9 miles, 15 min
HLR to site = 10 miles, 20 min
HLR to IDOT D1 = 16 miles, 30 min

		mi.	rate	
1.b	Site visit	20	0.54	\$10.80
3.b/f	Kick-off meeting	18	0.54	\$9.72
3.c/d	Plan Commission meeting	18	0.54	\$9.72
3.d	City Council meeting	18	0.54	\$9.72
3.e	IDOT coordination meeting	32	0.54	\$17.28



AGENDA ITEM EXECUTIVE SUMMARY

Title: Recommendation to Approve and Execute a Release and Reimbursement Agreement between the City and 1500 Lincoln Highway LLC.

Presenter: Chris Bong, P.E.

Please check appropriate box:

<input type="checkbox"/>	Government Operations	<input type="checkbox"/>	Government Services
X	Planning & Development (3/14/16)	<input type="checkbox"/>	City Council

Estimated Cost: N/A Budgeted: YES NO

If NO, please explain how item will be funded:

Executive Summary:

The proposed development site at 1500 Lincoln Highway (Northwest corner of 14 St. and Lincoln Hwy -- recently demolished bank) will have 2 buildings, the CVS Pharmacy and a retail outlot. The retail outlot is drawn on the engineering plans with 10 feet of separation from existing City watermain (see Exhibit "A"). The City Engineering Manual recommends that permanent structures be separated 20 feet from watermain. Providing the full 20 feet of separation creates a physical hardship for the development of the property as it essentially eliminates the possibility of the outlot on this site.

We have worked with the applicant to find a practical solution that is agreeable to both the City and Developer. There is an engineering part of the solution, which involves the applicant designing an extra deep building foundation wall which will "hold-back" the soil under the building in the event there is ever the need to excavate the watermain.

The item currently up for consideration is the legal part of the solution, namely that the Developer will provide a Release and Reimbursement Agreement to protect the City from any future damages to the Developer's building and/or the City's watermain as a result of providing less than 20 feet of separation. Staff has worked with the City's legal counsel to draft this agreement.

Attachments: *(please list)*

- Resolution
- Release and Reimbursement Agreement

Recommendation / Suggested Action *(briefly explain):*

Staff recommends approval and execution of the resolution for a Release and Reimbursement Agreement between the City and 1500 Lincoln Highway LLC.

For office use only: *Agenda Item Number:* 3c

**City of St. Charles, Illinois
Resolution No. _____**

**A Resolution to Approve and Execute a Release and Reimbursement
Agreement between the City and 1500 Lincoln Highway LLC.**

**Presented & Passed by the
City Council on _____**

WHEREAS, the Developer has received approval from the City to develop a 4,620 square foot single story building (the "Building") on that certain outlot located at 1500 Lincoln Highway/Illinois Route 38, St. Charles, Illinois (the "Outlot"); and,

WHEREAS, the Developer has submitted plans to the City detailing the location of the Building on the Outlot; and,

WHEREAS, the utility plans submitted to the City (as attached hereto as Exhibit "A"), depict the location of the proposed Building and the location of the existing water main as of the date of this agreement (the "Existing WM"); and,

WHEREAS, the City of St. Charles' Engineering Design and Inspection Policy Manual (the "Policy Manual") recommends that "Water appurtenances shall be a minimum of (20) feet from permanent structures;" (See attached portion of Policy Manual, attached hereto as Exhibit "B"); and,

WHEREAS, the Developer, through its agent, has requested that it be permitted to deviate from the Policy Manual and construct the Building within (10) feet of the Existing WM, (as depicted on Exhibit "A"); and,

WHEREAS, the City requires that the Developer provide this Agreement in consideration for the City allowing the Developer to construct the Building closer than twenty (20) feet from the Existing WM.

NOW THEREFORE, be it resolved by the Mayor and City Council of the City of St. Charles, Kane and DuPage Counties, Illinois to approve and execute the Release and Reimbursement Agreement between the City and 1500 Lincoln Highway LLC.

PRESENTED to the City Council of the City of St. Charles, Illinois, this _____ day of _____ 2016.

PASSED by the City Council of the City of St. Charles, Illinois, this _____ day of _____ 2016.

Resolution No. _____

Page 2

APPROVED by the Mayor of the City of St. Charles, Illinois, this _____ day of
_____ 2016.

Raymond Rogina, Mayor

ATTEST:

City Clerk

COUNCIL VOTE:

Ayes:

Nays:

Absent:

Abstain:

RELEASE AND REIMBURSEMENT AGREEMENT

THIS RELEASE AND REIMBURSEMENT AGREEMENT, entered into this _____ day of _____, 2016 by and between the **CITY OF ST. CHARLES, Kane and DuPage Counties, Illinois, a Municipal Corporation** (hereinafter “City”), and **1500 LINCOLN HIGHWAY LLC**, an Illinois limited liability company, (hereinafter “Developer”),

WITNESSETH:

WHEREAS, the Developer has received approval from the City to develop a 4,620 square foot single story building (the “Building”) on that certain outlot located at 1500 Lincoln Highway/Illinois Route 38, St. Charles, Illinois (the “Outlot”); and,

WHEREAS, the Developer has submitted plans to the City detailing the location of the Building on the Outlot; and,

WHEREAS, the utility plans submitted to the City (as attached hereto as Exhibit “A”), depict the location of the proposed Building and the location of the existing water main as of the date of this agreement (the “Existing WM”); and,

WHEREAS, the City of St. Charles’ Engineering Design and Inspection Policy Manual (the “Policy Manual”) recommends that “Water appurtenances shall be a minimum of (20) feet from permanent structures;” (See attached portion of Policy Manual, attached hereto as Exhibit “B”); and,

WHEREAS, the Developer, through its agent, has requested that it be permitted to deviate from the Policy Manual and construct the Building within (10) feet of the Existing WM, (as depicted on Exhibit “A”); and,

WHEREAS, the City requires that the Developer provide this Agreement in consideration for the City allowing the Developer to construct the Building closer than twenty (20) feet from the Existing WM.

NOW THEREFORE, in fulfillment of the obligations agreed upon by the Developer and the City, the parties are agreed as follows:

1. Recitals. The preceding paragraphs are deemed by the parties to constitute affirmative representations of fact intended by each of the parties to be relied on by the other, and those representations are incorporated and included within the terms of this Agreement.

2. Release. Developer hereby releases the City, its officers, employees, agents, successors and assigns (the “Released Parties”) from any and all claims, demands, judgments, penalties, liabilities, costs, damages and expenses for injury to persons or damage to property (“Claims”) that Developer has against the City that are caused by or arise out of a break of the Existing WM or any excavation work performed by the City to repair the Existing WM, to the extent that the Claims were caused solely by, result solely from or arise solely out of the fact that the Building is closer to the Existing WM than the distance recommended in the current version of the Policy Manual. This Release does not extend to Claims incurred by Developer as a result of the negligence or willful acts of the Released Parties.

3. Reimbursement. If Developer damages the Existing MW during the construction of the Building, and the damage was caused solely due to the fact that the Building is closer to the Existing WM than the distance recommended in the current version of the Policy Manual, then Developer will reimburse the City for all of the City’s reasonable out-of-pocket expenses incurred in repairing the damage to the Existing MW promptly after receipt of written notice from the City together with an invoice or other documentation identifying the expenses incurred by the City.

4. Attorneys’ Fees and Costs. In the event of any action or proceeding is filed concerning the terms of this Agreement, then the prevailing party shall be entitled to collect all its costs associated with the action or proceeding, including, but not limited to, its reasonable attorneys’ fees and court costs.

5. Waiver and Amendments. This Agreement may only be waived, modified, amended, terminated or discharged in writing signed by the parties hereto. A waiver so signed shall be effective only for the specific purpose set forth therein.

6. Arbitration. Disputes regarding this Agreement shall be submitted to binding arbitration before one single arbitrator of the American Arbitration Association (AAA) in Chicago, Illinois in accordance with its Commercial Arbitration Rules. The fees and costs of the AAA shall be

shared equally by the parties. In the event a party files a suit to enforce any award in arbitration, such action shall be filed and venue shall be in the Circuit Court for the Sixteenth Judicial Circuit, Kane County, Illinois.

7. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the Developer and the City and their respective successors and assigns.

8. Choice of Law. This Agreement shall be governed by, construed and enforced in accordance with the laws of the State of Illinois.

9. Notices. Any notice, demand or request which may be permitted, required or desired to be given in connection herewith shall be given in writing and directed to Developer and the City of St. Charles as follows:

Developer: 1500 Lincoln Highway LLC
c/o Keating Resources, LLC
719 Shady Avenue
Geneva, Illinois 60134
Attention: Gerard J. Keating

With a copy to its attorneys: Robert E. Blacher
Becker Gurian
513 Central Avenue, Suite 400
Highland Park, Illinois 60035
(847) 433-2442 (phone)
(847) 433-2025 (fax)

City of St. Charles: The City of St. Charles
2 East Main Street
St. Charles, Illinois 60174
(630) 377-4400 (phone)
(630) 377-4440 (fax)

With a copy to its attorneys: John M. McGuirk
Hoscheit, McGuirk, McCracken & Cuscaden, P.C.
1001 East Main Street, Suite G
St. Charles, IL 60174
(630) 513-8700 (phone)
(630) 513-8799 (fax)

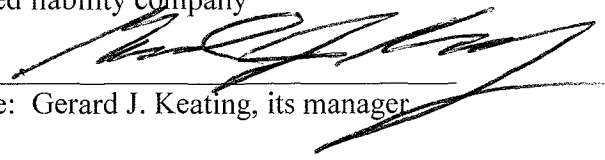
[The signature page follows]

IN WITNESS WHEREOF the parties have hereunto set their hands and seals on the day, month and year first above written.

**CITY OF ST. CHARLES of Kane and DuPage
Counties, Illinois, a Municipal Corporation**

**1500 LINCOLN HIGHWAY LLC, an Illinois
limited liability company**

By: _____
Mayor

By: 
Name: Gerard J. Keating, its manager

Attest: _____
Clerk

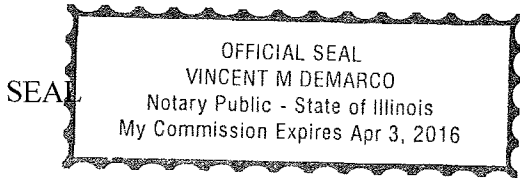
This Document Prepared by:
John M. McGuirk
Hoscheit, McGuirk, McCracken
& Cuscaden, P.C.
1001 East Main Street, Suite G
St. Charles, IL 60174

After recording, return to:
The City of St. Charles
2 East Main Street
St. Charles, IL 60174

STATE OF ILLINOIS)
) SS
COUNTY OF)

I, the undersigned, a Notary Public, in and for the County and State aforesaid, DO HEREBY CERTIFY, that GERARD J. KEATING, personally known to me to be manager of 1500 LINCOLN HIGHWAY LLC, an Illinois limited liability company, and personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that as such member of said company, being duly authorized, signed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and seal this 22nd day of FEBRUARY, 2016.



[Handwritten Signature]
NOTARY PUBLIC

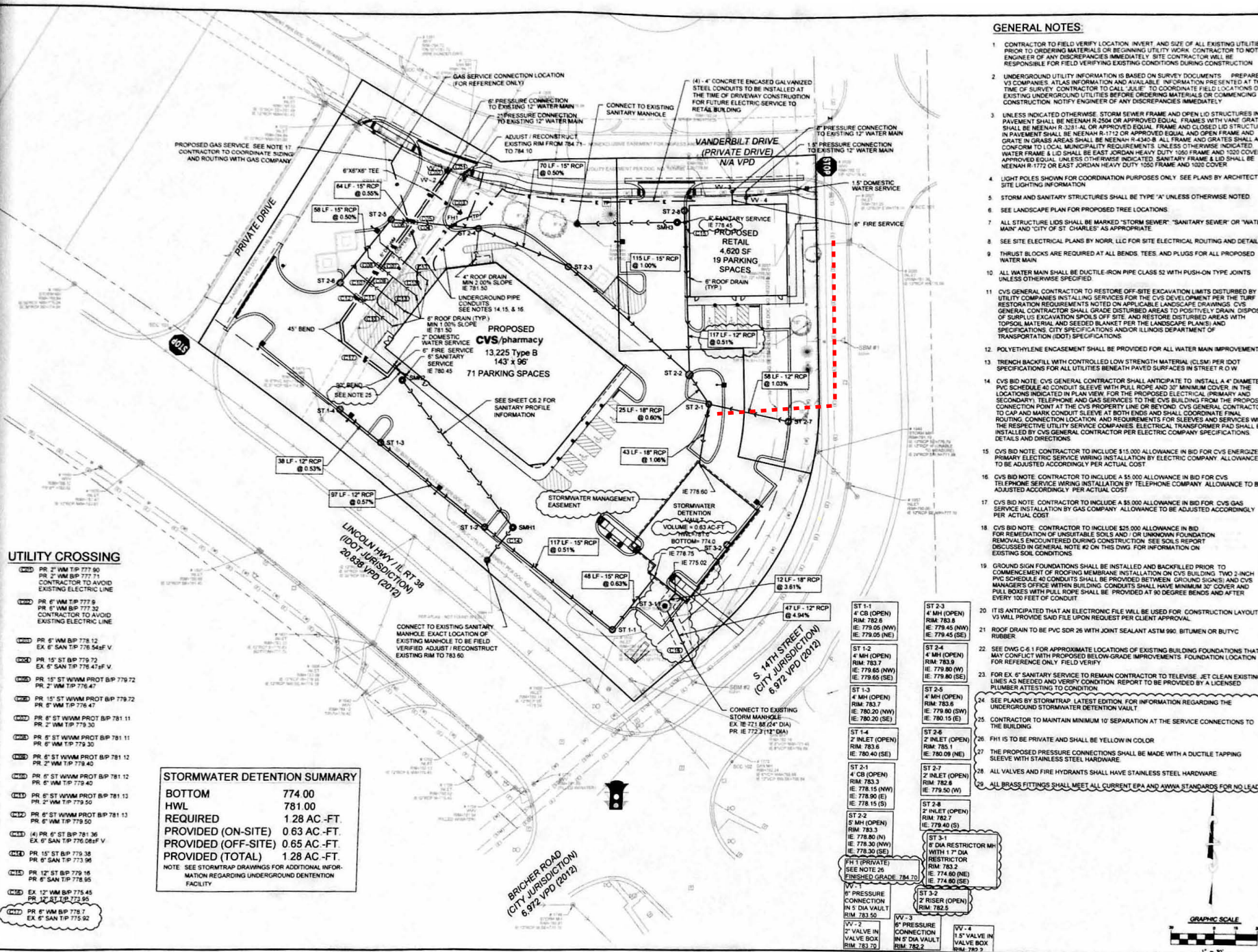
STATE OF ILLINOIS)
) SS
COUNTY OF)

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that Raymond Rogina, personally known to me to be the Mayor of the City of St. Charles, a municipal corporation and Nancy Garrison, personally known to me to be the City Clerk of the City of St. Charles, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such Mayor and City Clerk of said corporation they caused their signatures to be affixed thereto, and caused the corporate seal of said corporation to be affixed thereto, pursuant to the authority given by the Council of the City of St. Charles as their free and voluntary act, and as the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

Given under my hand and seal this ____ day of _____, 2016.

SEAL

NOTARY PUBLIC



UTILITY CROSSING

- 1000 PR 2" WM TIP 777.85
PR 2" WM BP 777.71
CONTRACTOR TO AVOID EXISTING ELECTRICAL LINE
- 1000 PR 6" WM TIP 777.6
PR 6" WM BP 777.52
CONTRACTOR TO AVOID EXISTING ELECTRICAL LINE
- 1000 PR 6" WM BP 778.12
EX 6" SAN TIP 778.54F V
- 1000 PR 15" ST BP 779.72
EX 6" SAN TIP 778.47F V
- 1000 PR 15" ST WVM PROT BP 779.72
PR 2" WM TIP 778.47
- 1000 PR 15" ST WVM PROT BP 779.72
PR 6" WM TIP 778.47
- 1000 PR 8" ST WVM PROT BP 781.11
PR 2" WM TIP 779.30
- 1000 PR 6" ST WVM PROT BP 781.11
PR 6" WM TIP 779.30
- 1000 PR 6" ST WVM PROT BP 781.12
PR 2" WM TIP 779.40
- 1000 PR 6" ST WVM PROT BP 781.13
PR 2" WM TIP 779.50
- 1000 PR 6" ST WVM PROT BP 781.13
PR 2" WM TIP 779.50
- 1000 EX 14" ST BP 781.36
EX 6" SAN TIP 776.08F V
- 1000 PR 15" ST BP 779.38
PR 6" SAN TIP 773.96
- 1000 PR 12" ST BP 779.16
PR 6" SAN TIP 778.95
- 1000 EX 12" WM BP 775.45
EX 12" AT TIP 773.95
- 1000 PR 6" WM BP 776.7
EX 6" SAN TIP 776.92

STORMWATER DETENTION SUMMARY

BOTTOM	774.00
HWL	781.00
REQUIRED	1.28 AC.-FT.
PROVIDED (ON-SITE)	0.63 AC.-FT.
PROVIDED (OFF-SITE)	0.65 AC.-FT.
PROVIDED (TOTAL)	1.28 AC.-FT.

NOTE: SEE STORMTRAP DRAWINGS FOR ADDITIONAL INFORMATION REGARDING UNDERGROUND DETENTION FACILITY.

GENERAL NOTES:

- 1 CONTRACTOR TO FIELD VERIFY LOCATION, INVERT AND SIZE OF ALL EXISTING UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING UTILITY WORK. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY. SITE CONTRACTOR WILL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS DURING CONSTRUCTION.
- 2 UNDERGROUND UTILITY INFORMATION IS BASED ON SURVEY DOCUMENTS PREPARED BY V3 COMPANIES. ATLAS INFORMATION AND AVAILABLE INFORMATION PRESENTED AT THE TIME OF SURVEY. CONTRACTOR TO CALL JULIE TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
- 3 UNLESS INDICATED OTHERWISE, STORM SEWER FRAME AND OPEN LID STRUCTURES IN PAVEMENT SHALL BE NEENAH R-2504 OR APPROVED EQUAL. FRAME AND GRATES IN GRATES IN PAVEMENT SHALL BE NEENAH R-1712 OR APPROVED EQUAL. ALL FRAME AND GRATES SHALL ALSO CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS. UNLESS OTHERWISE INDICATED, WATER FRAME & LID SHALL BE EAST JORDAN HEAVY DUTY 1500 FRAME AND 1000 COVER OR APPROVED EQUAL. UNLESS OTHERWISE INDICATED, SANITARY FRAME & LID SHALL BE NEENAH R-1772 OR EAST JORDAN HEAVY DUTY 1000 FRAME AND 1000 COVER.
- 4 LIGHT POLES SHOWN FOR COORDINATION PURPOSES ONLY. SEE PLANS BY ARCHITECT FOR SITE LIGHTING INFORMATION.
- 5 STORM AND SANITARY STRUCTURES SHALL BE TYPE "A" UNLESS OTHERWISE NOTED.
- 6 SEE LANDSCAPE PLAN FOR PROPOSED TREE LOCATIONS.
- 7 ALL STRUCTURE LIDS SHALL BE MARKED "STORM SEWER", "SANITARY SEWER" OR "WATER MAIN" AND CITY OF ST. CHARLES AS APPROPRIATE.
- 8 SEE SITE ELECTRICAL PLANS BY MORR, LLC FOR SITE ELECTRICAL ROUTING AND DETAILS.
- 9 THRUST BLOCKS ARE REQUIRED AT ALL BENDS, TEES AND PLUGS FOR ALL PROPOSED WATER MAIN.
- 10 ALL WATER MAIN SHALL BE DUCTILE-IRON PIPE CLASS 52 WITH PUSH-ON TYPE JOINTS UNLESS OTHERWISE SPECIFIED.
- 11 CVS GENERAL CONTRACTOR TO RESTORE OFF-SITE EXCAVATION LIMITS DISTURBED BY UTILITY COMPANIES INSTALLING SERVICES FOR THE CVS DEVELOPMENT PER THE TURF RESTORATION REQUIREMENTS NOTED ON APPLICABLE LANDSCAPE DRAWINGS. CVS GENERAL CONTRACTOR SHALL GRADE DISTURBED AREAS TO POSITIVELY DRAIN. DISPOSE OF SURPLUS EXCAVATION ROCK FILL SITE AND RESTORE DISTURBED AREAS WITH TOPSOIL MATERIAL AND SEEDING BLANKET PER THE LANDSCAPE PLANS AND SPECIFICATIONS. CITY SPECIFICATIONS AND/OR ILLINOIS DEPARTMENT OF TRANSPORTATION (DOT) SPECIFICATIONS.
- 12 POLYETHYLENE ENCASEMENT SHALL BE PROVIDED FOR ALL WATER MAIN IMPROVEMENTS.
- 13 TRENCH BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) PER DOT SPECIFICATIONS FOR ALL UTILITIES BENEATH PAVED SURFACES IN STREET ROW.
- 14 CVS BID NOTE: CVS GENERAL CONTRACTOR SHALL ANTICIPATE TO INSTALL A 4" DIAMETER PVC SCHEDULE 40 CONDUIT SLEEVE WITH PULL ROPS AND 30" MINIMUM COVER IN THE LOCATIONS INDICATED IN PLAN VIEW FOR THE PROPOSED ELECTRICAL (PRIMARY AND SECONDARY), TELEPHONE AND GAS SERVICES TO THE CVS BUILDING FROM THE PROPOSED CONNECTION POINT AT THE CVS PROPERTY LINE OR BEYOND. CVS GENERAL CONTRACTOR TO CAP AND MARK CONDUIT SLEEVE AT BOTH ENDS AND SHALL COORDINATE FINAL ROUTING, CONNECTION LOCATION AND REQUIREMENTS FOR SLEEVES AND SERVICES WITH THE RESPECTIVE UTILITY SERVICE COMPANIES. ELECTRICAL TRANSFORMER PAD SHALL BE INSTALLED BY CVS GENERAL CONTRACTOR PER ELECTRIC COMPANY SPECIFICATIONS. DETAILS AND DIRECTIONS.
- 15 CVS BID NOTE: CONTRACTOR TO INCLUDE \$15,000 ALLOWANCE IN BID FOR CVS ENERGIZED PRIMARY ELECTRICAL SERVICE WIRING INSTALLATION BY ELECTRIC COMPANY. ALLOWANCE TO BE ADJUSTED ACCORDINGLY PER ACTUAL COST.
- 16 CVS BID NOTE: CONTRACTOR TO INCLUDE A \$5,000 ALLOWANCE IN BID FOR CVS TELEPHONE SERVICE WIRING INSTALLATION BY TELEPHONE COMPANY. ALLOWANCE TO BE ADJUSTED ACCORDINGLY PER ACTUAL COST.
- 17 CVS BID NOTE: CONTRACTOR TO INCLUDE A \$5,000 ALLOWANCE IN BID FOR CVS GAS SERVICE INSTALLATION BY GAS COMPANY. ALLOWANCE TO BE ADJUSTED ACCORDINGLY PER ACTUAL COST.
- 18 CVS BID NOTE: CONTRACTOR TO INCLUDE \$25,000 ALLOWANCE IN BID FOR REMEDIATION OF UNSUITABLE SOILS AND/OR UNKNOWN FOUNDATION REMOVALS ENCOUNTERED DURING CONSTRUCTION. SEE SOILS REPORT DISCUSSED IN GENERAL NOTE #2 ON THIS DWG. FOR INFORMATION ON EXISTING SOIL CONDITIONS.
- 19 GROUND SIGN FOUNDATIONS SHALL BE INSTALLED AND BACKFILLED PRIOR TO COMMENCEMENT OF ROOFING MEMBRANE INSTALLATION ON CVS BUILDING. TWO 2-INCH PVC SCHEDULE 40 CONDUITS SHALL BE PROVIDED BETWEEN GROUND SIGNS AND CVS MANAGER'S OFFICE WITHIN BUILDING. CONDUITS SHALL HAVE MINIMUM 30" COVER AND EVERY 100 FEET OF CONDUIT.
- 20 IT IS ANTICIPATED THAT AN ELECTRONIC FILE WILL BE USED FOR CONSTRUCTION LAYOUT. V3 WILL PROVIDE SAID FILE UPON REQUEST PER CLIENT APPROVAL.
- 21 ROOF DRAIN TO BE PVC SDR 26 WITH JOINT SEALANT ASTM 990. BITUMEN OR BUTYLC RUBBER.
- 22 SEE DWG C-6.1 FOR APPROXIMATE LOCATIONS OF EXISTING BUILDING FOUNDATIONS THAT MAY CONFLICT WITH PROPOSED BELOW-GRADE IMPROVEMENTS. FOUNDATION LOCATION FOR REFERENCE ONLY. FIELD VERIFY.
- 23 FOR EX 6" SANITARY SERVICE TO REMAIN CONTRACTOR TO TELETYPE, JET-CLEAN EXISTING LINES AS NEEDED AND VERIFY CONDITION. REPORT TO BE PROVIDED BY A LICENSED PLUMBER AT TESTING TO CONDITION.
- 24 SEE PLANS BY STORMTRAP LATEST EDITION FOR INFORMATION REGARDING THE UNDERGROUND STORMWATER DETENTION VAULT.
- 25 CONTRACTOR TO MAINTAIN MINIMUM 10' SEPARATION AT THE SERVICE CONNECTIONS TO THE BUILDING.
- 26 FH1 IS TO BE PRIVATE AND SHALL BE YELLOW IN COLOR.
- 27 THE PROPOSED PRESSURE CONNECTIONS SHALL BE MADE WITH A DUCTILE TAPPING SLEEVE WITH STAINLESS STEEL HARDWARE.
- 28 ALL VALVES AND FIRE HYDRANTS SHALL HAVE STAINLESS STEEL HARDWARE.
- 29 ALL BRASS FITTINGS SHALL MEET ALL CURRENT EPA AND AWWA STANDARDS FOR NO LEAD.

CVS pharmacy
 NEW NORTHERN - 13,225 B
 STORE NUMBER: 10660
 LINCOLN HWY / IL RT 38 & 14TH STREET
 KANE COUNTY
 ST CHARLES, ILLINOIS
 DEAL TYPE: NEW
 CS PROJECT NUMBER: CS# 85940

ENGINEER:

 V3 Companies
 7325 Jakes Avenue
 Woodridge, IL 60517
 830.724.9200 phone
 830.724.9202 fax
 www.v3co.com

CONSULTANT:
 ARCHITECT
 MORR, LLC
 150 W. JEFFERSON, SUITE 1300
 DETROIT, MICHIGAN 48226
 PHONE: (313) 324-3100
 LANDSCAPE CONSULTANTS
 DANIEL WEINBACH & PARTNERS
 53 W. JACKSON BLVD., SUITE 250
 CHICAGO, ILLINOIS 60604
 PHONE: (312) 427-2888

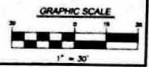
DEVELOPER:
 T.M.
CROWLEY & ASSOCIATES
 501 PENNSYLVANIA PARKWAY, SUITE 160
 INDIANAPOLIS, IN 46220
 PHONE: 317.735.8800
 FAX: 317.574.7336

SEAL:

REVISIONS/ SUBMITTALS

9/21/15	ISSUED FOR PERMIT
9/25/15	ISSUED FOR BID
10/30/15	CITY COMMENTS

DRAWING BY: RI
 DATE: SEPTEMBER 21, 2015
 JOB NUMBER: 07188 149
 TITLE: UTILITY PLAN
 SHEET NUMBER: C-6.0
 COMMENTS:



- 14) Valve Vaults: Valve vaults are to be precast reinforced concrete, eccentric type (refer to standard detail and materials section for sizing specifications). A maximum of (8-inches) of adjusting rings shall be used.
- 15) Frame and Covers: All valve vault structures shall have a Neenah Foundry Company R-1713 frame and type "B" Lid with concealed pick hole. Lids shall be furnished with "City of St. Charles - Water" cast into the top surface (refer to City standard detail).
- 16) Water Main, Minimum Size: The minimum size for any public water main shall be 8" (with the exception of hydrant laterals that may be 6", (see design requirement #3 above for fire flow considerations).
- 17) Separation: A ten-foot horizontal separation shall be maintained between water mains and appurtenances, and all other utilities, public or private.
- 18) Appurtenance Separation: Water appurtenances shall be a minimum of (20) feet from permanent structures; this applies to any structure that may require a building permit (i.e. retaining walls, pools, shed, garages, etc.)
- 19) Dead Ends: Dead end water mains longer than 300' should not be permitted. The water system must be extended, as a minimum, to the limits of the development and looped wherever possible. Note on all plans which mains are to be public and private.
- 20) Adjustment of Structures: All adjustments to valve vaults shall be made with precast concrete adjusting rings not to exceed a maximum of eight (8) inches overall in height. Watertight valve vaults shall be provided for each valve. Barrel sections shall be seated using (2) butyl rubber strips per tongue and groove section. Valve vaults are to be precast reinforced concrete, concentric type (refer to standard detail and materials section for sizing specifications). After final adjustments have been made, all joints in precast structures shall be mortared. The mortar shall be composed of one part cement to three parts sand, by volume, based on dry metals and shall be thoroughly wetted before laying. Vaults may only be extended to a maximum of 23" from the surface to the inside flare of the manhole cone section.
- 21) Connecting to Existing Water Mains: Connection to the end of an existing a water main shall be with a valve only. No new water main should be connected to the existing water main unless the new water main can be pressure tested separately. Connection to an existing water main shall be done by pressure connection only unless authorized by the appropriate Engineering Division. Pressure connection and valve shall be located within the valve vault. No pressure connection shall be within 3 feet of an existing water main joint. If pressure connection cannot be done, use a cut in sleeve and tee connection. All fittings will be swabbed out with a chlorine solution of at least 50 mg/L. A City Representative must test this solution.
- 22) Service Taps: Service taps to water mains are not permitted until after bacteriological sampling and analysis has been completed to the satisfaction of the appropriate Engineering Division. No water service connection shall be made by any person or firm other than a State



AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve a Downtown Business Economic Incentive Award for 320 W. Main Street (Two Wild Seeds Bakery)
Presenter:	Matthew O'Rourke, Economic Development Division Manager

Please check appropriate box:

	Government Operations		Government Services
X	Planning & Development (3/14/16)		City Council
	Public Hearing		

Estimated Cost:	\$14,223.00	Budgeted:	YES	X	NO
-----------------	-------------	-----------	-----	---	----

If NO, please explain how item will be funded:

Executive Summary:

Background:

In February of 2015, the City Council approved the Downtown Business Economic Incentive Program to provide build-out assistance for new or existing/expanding businesses that are renovating the inside of retail spaces located on the first floor of downtown properties. Subsequently, this program received its first funding allocation on May 1, 2015 for FY 2015-2016. When the program was created, it included two different tiers for approval. Tier 1 (awards in the amount of \$10,000 or less) are approved administratively by staff. Tier 2 awards (over \$10,000 up to the maximum allowed of \$25,000) require City Council approval.

During this first year, the program has been well received and utilized by both new and existing business owners. Four grants for Isacco, Bombshell 56, The Finery & Blacksmith Bar, and Magnolia Bridal have been approved, and an award for Charlestowne on the River is currently under review. All of these previous awards were at or under \$10,000.

Two Wild Seeds Downtown Business Economic Incentive Award:

Staff is presenting the first Downtown Business Economic Incentive Program Award that exceeds the \$10,000 Tier 1 limit. Susan and Katie Kritzberg are locating a new bakery at 320 W. Main Street (formerly The Bend). There are a number of upgrades required including: new ceiling tiles (kitchen), new flooring (per the Kane County Health Department), and demising walls to separate the kitchen from customer areas.

Staff has reviewed the grant eligible improvements and recommends approval of the grant. The total cost of the improvements is \$28,445 and the City's share will be a maximum of \$14,223.

Attachments: *(please list)*

Draft Downtown Business Economic Incentive Award Agreement.
Downtown Business Economic Incentive Program Application

Recommendation / Suggested Action *(briefly explain):*

Recommendation to approve a Downtown Business Economic Incentive Award for 320 W. Main Street (Two Wild Seeds Bakery).

<i>For office use only:</i>	<i>Agenda Item Number: 3d</i>
-----------------------------	-------------------------------

City of St. Charles
Downtown Business Economic Incentive Award Agreement

320 W. Main Street
Two Wild Seeds Baking Company, LLC. (Susan and Katie Kritzberg)

THIS AGREEMENT, entered into this 21st day of March, 2016, between the City of St. Charles, Illinois (hereinafter referred to as "CITY") and the following designated APPLICANT, to wit:

APPLICANT Name: **Susan and Katie Kritzberg**

Address of Property to be Improved: **320 W. Main Street**

PIN Number(s): **09-27-361-006**

Property Owner's Name: **CHOICE COMMERCIAL PROPERTIES, LTD.**

WITNESSETH:

WHEREAS, the CITY has established a **Downtown Business Economic Incentive Award Program** to provide matching grants for permanent Building Improvements within the Downtown Business Economic Incentive Program Boundary Area of the CITY as described in Exhibit I; and

WHEREAS, Susan and Katie Kritzberg, APPLICANT(S), desires to install related Building Improvements to the above-described property that are eligible for reimbursement under the Downtown Business Economic Incentive Award; and

WHEREAS, said Downtown Business Economic Incentive Program is administered by the CITY and is funded from the general fund for the purposes of improving the building stock in the downtown area of the CITY and preventing blight and deterioration; and

WHEREAS, the above-described property for which the APPLICANT seeks a grant is located within the area eligible for participation in the Downtown Business Economic Incentive Award Program.

NOW, THEREFORE, in consideration of the mutual covenants and agreements obtained herein, the CITY and the APPLICANT do hereby agree as follows:

SECTION 1: The APPLICANT understands and agrees that only the cost of eligible Building Improvements located on the parcels with the following PIN(s) 09-27-361-006, shall be considered reimbursable as described in Exhibit II. The CITY will reimburse the APPLICANT up to 50% of the cost of labor, materials and equipment necessary to install Building Improvements in accordance with the approved plans, specifications and cost estimates attached hereto as Exhibit “II” (the “Eligible Building Improvements Cost Estimate”), but in no event more than the maximum amounts as defined below:

Building Improvements cost: \$28,447.00 City’s Share @ 50% up to a maximum of \$14,223.00

Labor by the APPLICANT (“sweat equity”) is not a reimbursable expense. All Building Improvements shall be installed in accordance with approved building permit plans, subject to minor revisions as may be approved by a representative of the CITY due to field conditions not known at the time of design, and similar circumstances beyond the APPLICANT’s control.

SECTION 2: The Director of Community & Economic Development, or designee, shall inspect the Building Improvements installed pursuant to this Agreement and shall include any required permit inspections by the CITY. All work that is not in conformance with the approved plans and specifications shall be remedied by the APPLICANT and deficient or improper work shall be replaced and made to comply with the approved plans and specifications and the terms of this Agreement.

SECTION 3: Upon completion of the Building Improvements and upon their final inspection and approval by the Director of Community & Economic Development, or designee, the APPLICANT shall submit to the CITY a properly executed and notarized contractor statement showing the full cost of the Building Improvements as well as each separate component amount due to the contractor and each and every subcontractor involved in furnishing labor, materials or equipment in the work. In addition, the APPLICANT shall submit to the CITY proof of payment of the contract cost pursuant to the contractor's statement and final lien waivers from all contractors and subcontractors. The CITY shall, within thirty (30) days of receipt of the contractor's statement,

proof of payment and lien waivers, and “before” and “after” pictures of the property, reimburse the APPLICANT for the 50% of the actual construction and materials cost or the maximum amount specified in this Agreement, whichever is less.

At its sole discretion, CITY may reimburse APPLICANT in two payments. The first reimbursement may be made only

1) Upon completion of Building Improvements representing 40% or more of the maximum reimbursement specified in Section 1 hereof and,

2) Upon receipt by CITY of the all invoices, contractor's statements, proof of payment and notarized final lien waivers for the completed Building Improvements and,

3) Upon a determination by the Director of Community & Economic Development, or designee, that the remainder of the Building Improvements are expected to be delayed for thirty days or more following completion of the initial work due to weather, availability of materials, or other circumstances beyond the control of the APPLICANT. The second, final reimbursement payment shall be made by CITY only upon submittal of all necessary documents as described herein.

SECTION 4: All Building Improvements must be completed within 270 days after the approval of this Agreement. Extensions may be approved by the Director of Community & Economic Development, prior to the expiration of the said 270 days. Projects which have not received an extension and have not been completed within 270 days will not receive funding.

SECTION 5: If the APPLICANT or his contractor fails to complete the Building Improvements provided for herein in conformity with the approved plans and specifications and the terms of this Agreement, then upon written notice being given by the Director of Community & Economic Development to the APPLICANT, by certified mail to the address listed above, this Agreement shall terminate and the financial obligation on the part of the CITY shall cease and become null and void.

SECTION 6: Upon completion of the Building Improvements pursuant to this Agreement and for a period of five (5) years thereafter, the APPLICANT shall be responsible for properly maintaining such Building Improvements in finished form and without change or alteration thereto, as provided in this Agreement, and for the said period of five (5) years following completion of the

construction thereof, the APPLICANT shall not enter into any Agreement or contract or take any other steps to alter, change or remove such Building Improvements, or the approved design thereof, nor shall APPLICANT undertake any other changes, by contract or otherwise, to the Building Improvements provided for in this Agreement unless such changes are first approved by the Director of Community & Economic Development, Designee, or City Council, whichever the case may be. Such approval shall not be unreasonably withheld if the proposed changes do not substantially alter the original design concept of the Building Improvements as specified in the plans, design drawings and specifications approved pursuant to this Agreement.

If within the 5-year maintenance period improvement is damaged by automobiles, wildlife, acts of nature, or stolen or any other cause, the APPLICANT shall install and pay for replacements.

In the event of inadequate maintenance, the CITY shall give the owner reasonable notice of conditions to be corrected. In the event that substandard maintenance still exists after thirty (30) days, OWNER shall repay the CITY all grant funds received pursuant to this Agreement and pay all costs and fees, including attorney fees, of any legal action taken to enforce the maintenance of the Building Improvements.

SECTION 7: The APPLICANT covenants and agrees to indemnify and hold harmless the CITY and its officials, officers, employees and agents from and against, any and all losses, claims, damages, liabilities or expenses, of every conceivable kind, character and nature whatsoever arising out of, resulting from or in any way connected with directly or indirectly with the Downtown Business Economic Incentive Award(s) which are the subject of this Agreement. The APPLICANT further covenants and agrees to pay for or reimburse the CITY and its officials, officers, employees and agents for any and all costs, reasonable attorneys' fees, liabilities or expenses incurred in connection with investigating, defending against or otherwise in connection with any such losses, claims, damages, liabilities, or causes of action. The CITY shall have the right to select legal counsel and to approve any settlement in connection with such losses, claims, damages, liabilities, or causes of action. The provisions of this section shall survive the completion of said building improvement(s).

SECTION 8: Nothing herein is intended to limit, restrict or prohibit the APPLICANT from

undertaking any other work in or about the subject premises, which is unrelated to the Building Improvements provided for in this Agreement.

SECTION 9: This Agreement shall be binding upon the CITY and upon the APPLICANT and its successors and assigns with respect to the property on which the Building Improvements are installed, for a period of five (5) years from and after the date of completion and approval of the building improvement provided for herein. It shall be the responsibility of the APPLICANT to inform subsequent owners and lessees of the provisions of this Agreement.

IN WITNESS THEREOF, the parties hereto have executed this Agreement on the date first appearing above.

APPLICANT

PROPERTY OWNER
(if different from APPLICANT)

CITY OF ST. CHARLES: _____

Mayor or Director of Community & Economic Development

ATTEST: _____

City Clerk

Applicant contact information:

Phone: _____

Fax: _____

Email: _____

Property Owner's information, if different than applicant:

Phone: _____

Fax: _____

Email: _____

Exhibit I

Map of the Downtown Business Economic Incentive Program Eligible Properties Boundary



City of St. Charles, Illinois

Two East Main Street St. Charles, IL 60174-1984
Phone: 630-377-4400 Fax: 630-377-4440 - www.stcharlesil.gov

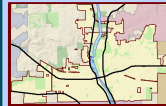
Precision GIS

RAYMOND REGINA Mayor
MARK KOENEN City Administrator



Legend

- Downtown Business Economic Incentive Program Boundary —
- Downtown Overlay District —



Data Source:
City of St. Charles, Illinois
Kane County, Illinois
DuPage County, Illinois
Projection: Transverse Mercator
Coordinate System: Illinois State Plane East
North American Datum 1983
Printed on: January 20, 2015 08:49 AM



This work was created for planning purposes only and is provided as is, without warranty of any kind, either expressed or implied. The information represented may contain proprietary and confidential property of the City of St. Charles, Illinois. Under United States Copyright protection laws you may not use, reproduce, or distribute any part of this document without prior written permission. To obtain written permission please contact the City of St. Charles at Two East Main Street, St. Charles, IL 60174.
Powered by Precision GIS

Exhibit II

Eligible Building Improvements Cost Estimate

TITONI GROUP INC

P.O. Box 147, South Elgin, IL 60177 | 847-347-4260 | titonigroup@att.net

February 1, 2016

Susan Kritzberg

Blackberry Bakery

420 Main St.

St Charles, IL 60174

Skritz54@yahoo.com

Proposal for work being done for the above address,

Demo flooring and ceiling as needed, demo all shelves

Frame walls as per print, drywall new walls, and finish tape

Supply and install white FRP full height around sink area and 60" height in the remainder of the kitchen area

Labor and materials ...\$12725.00

Add hand wash sink as per print and install new sink (supplied by others) Labor and materials ...\$1940.00

All electrical as per print Labor and materials ...\$8100.00

Supply and install new vinyl, fire rates ceiling tiles Labor and materials ... \$1920.00

Supply and install commercial grade sheet goods, Labor for install of sheet goods and underlayment and all rubber base and transitions stripes ...\$2450.00 ... materials ... \$1550.00. sheet good are from \$45 or \$60 per yard plus sales tax. you will need a total of 100 yards. \$4500.00 to \$6000.00 plus tax

Paint all one color in exist retail, new hall, bathroom Labor and materials ... \$2200.00

Paint kitchen labor and materials ...\$880.00

Dumpster is \$450 per 20, yard box

WAINSCOT TBD, COUNTER TOP TBD,

All equipment supplied and installed by others

All lighting fixtures supplied by others

All plumbing fixtures supplied by others

No fire alarm included in above work and no low voltage/data included

All permits and fees by others

All pricing is based upon drawings dated 01-19-16 any changed will be subjected to additional cost or possible credit

50% deposit is required and balance due upon completion of the above work

Any addition work will be quoted

If you have any questions, please contact me at any time

Thank you

Titoni Group Inc

LEASE

Date of Lease: December 11, 2015
Term of Lease: Beginning: December 11, 2015 Ending: November 30, 2018
Location of Premises: 320 W Main Street, St. Charles, IL 60174
Purpose of Lease: A Bakery where bread, cakes, cookies, and other baked foods are made and sold
Lessee: Blackberry Baking Company, LLC an Illinois Limited Liability Company and Kaitlin Kritzberg and Susan Kritzberg, personally, 1217 Game Farm Road, Yorkville, IL - 60560
Lessor: Choice Commercial Properties - PO Box 348, Geneva, Illinois 60134

In consideration of the mutual covenants and agreements herein stated, Lessor hereby leases to Lessee and Lessee hereby leases from Lessor solely for the above purpose the premises designated above (the "Premises"), together with the appurtenances thereto, for the above Term.

1. RENT. It is hereby agreed by the Lessee that Lessee shall pay in advance to Lessor or Lessor's agent, at Lessor's address stated above or such other address as Lessor may designate in writing, the sum of:

- Zero dollars (\$0.00) per month for the period of December 11, 2015 to January 31, 2016
- One thousand dollars (\$1,000.00) per month for the period of February 1, 2016 to February 29, 2016
- Two thousand dollars (\$2,000.00) per month for the period of March 1, 2016 to November 30, 2016
- Two thousand, sixty dollars (\$2,060.00) per month for the period of December 1, 2016 to November 30, 2017
- Two thousand, one hundred, sixty dollars (\$2,122.00) per month for the period of December 1, 2017 to November 30, 2018

Rent is due on or before the first day of each month and any payments received after the first day of each month shall bear a late charge equal to five percent of the overdue payment. Any payments received after the fifth day of each month shall bear an additional late charge of twenty five dollars (\$25.00) per day for each and every day rent is not received.

2. UTILITIES. Lessee will pay, in addition to the rent above specified, all water rents, gas and electric light and power bills taxed, levied or charged on the Premises, for and during the time for which this Lease is granted and in case said water rents and bills for gas, electric light and power shall not be paid when due, Lessor shall have the right to pay the same, which amount so paid, together with any sums paid by Lessor to keep the Premises in clean and healthy condition, as herein specified, are declared to be so much additional rent plus 5% and payable with the installment of rent next due thereafter. Lessee is responsible for all phone charges and/or charges for fax, modem or phone line, garbage and refuse pickup.

3. REAL ESTATE TAXES AND OTHER PASS THROUGHES. In addition to the rent and utility charges designated in Paragraphs One and Two above, the Lessee will pay its proportionate share of the real estate taxes and the common area expenses (as defined below) incurred by Lessor throughout the term of this Lease. These charges may be billed to Lessee monthly as such charges are incurred or annually, as determined by Lessor. The Lessee's proportionate share will be deemed to be 35% of the monies owed.

Real Estate Taxes: Lessee shall pay all general real estate taxes on the Premises for the period of the leasehold, in the following manner: Lessee shall pay one-twelfth of their proportionate share of the estimated annual real estate tax bill for the Premises to the Lessor on the same day as rent is due the Lessor, said funds to be held by Lessor for the payment of the taxes due. The initial monthly amount due for real estate taxes from Lessee shall be four hundred sixty one dollars (\$461.00) per month. The actual amount of one-twelfth of the annual real estate taxes due from the Lessee to Lessor shall be adjusted on June 1st of each year of the leasehold. For the original term of this Lease, Lessor agrees to cap any increase to the real estate taxes to 5% of the previous year.

Common Area Expenses: Lessor will operate, manage, maintain and repair the common areas of the building and pay the costs of such operation. These costs shall mean all costs of operating and maintaining the common areas in a manner deemed by Lessor appropriate for the best interests of Lessee and other occupants of the building. Included among the costs and expenses which constitute Lessor's common area expenses, but not limited thereto, shall be all costs and expenses of protecting, managing, repairing, lighting, cleaning, painting, striping, insuring, removing of snow, ice and debris, security, fire protection, inspecting, repair and maintenance of equipment used in the operation of the Common Areas, repairing and replacing electrical, gas, water and telephone systems, costs of landscaping and expenses of utilities use in common areas. Lessee shall pay all Common Area Expenses on the Premises for the period of the leasehold, in the following manner: Lessee shall pay one-twelfth of their proportionate share of the estimated Common Area Expenses for the Premises to the Lessor on the same day as rent is due the Lessor, said funds to be held by Lessor for the payment of Common Area Expenses as such charges are incurred. The initial monthly amount due from Lessee shall be two hundred thirty nine dollars (\$239.00) per month. The actual amount of one-twelfth of the annual Common Area Expenses due from the Lessee to Lessor shall be adjusted on June 1st of each year of the leasehold. For the original term of this Lease, Lessor agrees to cap any increase to the Common Area Expenses to 5% of the previous year.

4. SECURITY DEPOSIT. Lessee shall at the time this Lease is executed deposit with Lessor the sum of two thousand, five hundred dollars (\$2,500.00) which shall be held by Lessor (without interest) as a Security Deposit to partially secure faithful performance by Lessee of all of the covenants, conditions, and agreements in this Lease set forth and contained herein on the part of Lessee. Lessee agrees that the Security Deposit may be applied by the Lessor to cure any default without prejudice to any other remedy which Lessor may have on account thereof, and upon such application Lessee shall pay to Lessor on demand that amount so applied which shall then be added to the Security Deposit so that same may be restored to its original amount. Lessor agrees that if Lessee shall faithfully perform and observe all of the covenants, conditions, and agreements in this Lease, then within thirty days of the Termination Date, the remaining balance of the sum deposited, less any portion previously applied, shall be returned to Lessee when Lessee vacates the Premises and surrenders possession thereof to Lessor in satisfactory condition. In the event of bankruptcy or other creditor debt proceedings against Lessee which result in a third party claim on the Security Deposit, the Security Deposit shall be deemed to be first applied to the payment of rents and other sums due Lessor for all periods prior to the filing of such proceedings. Lessor may deliver the Security Deposit to a purchaser or transferee of Lessor's interest in the building in the event that such

Revised Cost Estimate - Flooring

Subject: Re: Flooring Bid
From: Michael Titone (titonigroup@att.net)
To: skritz54@yahoo.com;
Date: Friday, March 4, 2016 5:28 AM

Susan Kritzberg
Blackberry Bakery
420 Main St.
St Charles, IL 60174
Skritz54@yahoo.com

March 4, 2016

Proposal for work being done for the above address,
Demo flooring and ceiling as needed, demo all shelves
Frame walls as per print, drywall new walls, and finish tape
Supply and install white FRP full height around sink area and 60" height in the remainder of the kitchen area
Labor and materials ...\$12725.00
Add hand wash sink as per print and install new sing (supplied by others) Labor and materials ...\$1940.00
All electrical as per print Labor and materials ...\$8100.00
Supply and install new vinyl, fire rates ceiling tiles Labor and materials ... \$1920.00
Supply and install Congoleum VCT -14 Light Pebble Beige, along wit color matching vinyl base in kitchen area and brown vinyl in retail area. Also supply and install all under layment and skim to smooth finish. Labor and materials . \$3762.00
Paint all one color in exist retail, new hall, bathroom Labor and materials ... \$2200.00
Paint kitchen labor and materials ...\$880.00
Dumpster is \$450 per 20, yard box

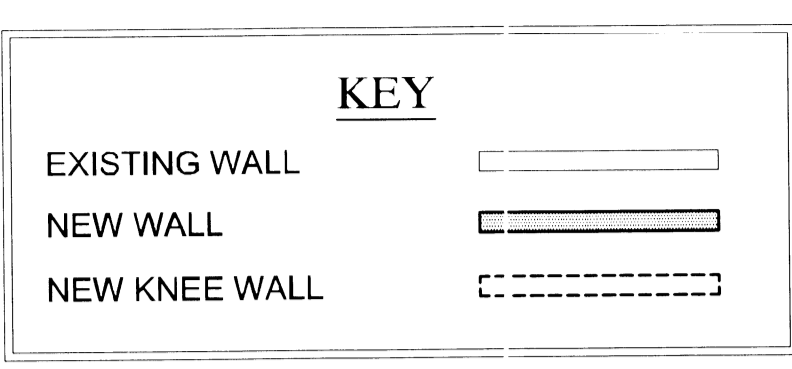
WAINSCOT TBD, COUNTER TOP TBD,
All equipment supplied and installed by others
All lighting fixtures supplied by others
All plumbing fixtures supplied by others
No fire alarm included in above work and no low voltage/data included

All permits and fees by others
All pricing is based upon drawings dated 01-19-16 any changed will be subjected to additional cost or possible credit
50% deposit is required and balance due upon completion of the above work
Any addition work will be quoted
If you have any questions, please contact me at any time
Revised quote as of March 4, 2016

Thank you
Titoni Group Inc

ROOM FINISH SCHEDULE											
NO.	NAME	SQ.FT.	FLOOR MAT. FIN.	BASE	NORTH WALL MAT. FIN.	EAST WALL MAT. FIN.	SOUTH WALL MAT. FIN.	WEST WALL MAT. FIN.	CEILING MAT. FIN.	CEILING HEIGHT	REMARKS
1	EXIST. RETAIL	425 sq.ft.	EXISTG VINYL	EXISTG VINYL	PAINTED	EXISTG DRYWALL	PAINTED	EXISTG DRYWALL	PAINTED	9'-6"	NEW AC TILE AS REQD
2	NEW HALL	66 sq.ft.	EXISTG VINYL	EXISTG VINYL	PAINTED	EXISTG DRYWALL	PAINTED	EXISTG DRYWALL	PAINTED	9'-6"	NEW AC TILE AS REQD
3	NEW SALES AREA	100 sq.ft.	NEW Q.T.	NEW Q.T.	PAINTED	EXISTG DRYWALL	PAINTED	EXISTG DRYWALL	PAINTED	9'-6"	NEW AC TILE AS REQD
4	EXIST UTENSIL WASHINGS	74 sq.ft.	EXISTG TILE	EXISTG TILE	---	EXISTG DRYWALL	F.R.P.	EXISTG DRYWALL	F.R.P.	9'-6"	"WHITE" FFP
5	NEW KITCHEN	419 sq.ft.	NEW Q.T.	NEW Q.T.	---	EXISTG DRYWALL	F.R.P.	EXISTG DRYWALL	F.R.P.	9'-6"	"WHITE" FFP
6	EXIST TOILET	55 sq.ft.	EXISTG VINYL	EXISTG VINYL	PAINTED	EXISTG DRYWALL	PAINTED	EXISTG DRYWALL	PAINTED	8'-2"	---
7	EXIST UTILITY	74 sq.ft.	EXISTG VINYL	EXISTG VINYL	PAINTED	EXISTG DRYWALL	PAINTED	EXISTG DRYWALL	PAINTED	8'-2"	---
8	EXIST. OFFICE / DRY STORAGE	100 sq.ft.	EXISTG VINYL	EXISTG VINYL	PAINTED	EXISTG DRYWALL	PAINTED	EXISTG DRYWALL	PAINTED	9'-6"	---
9	EXIST. BASEMENT STORAGE	123 sq.ft.	EXISTG CONCRETE	EXISTG CONCRETE	---	EXISTG CONCRETE	---	EXISTG CONCRETE	---	OPEN	---

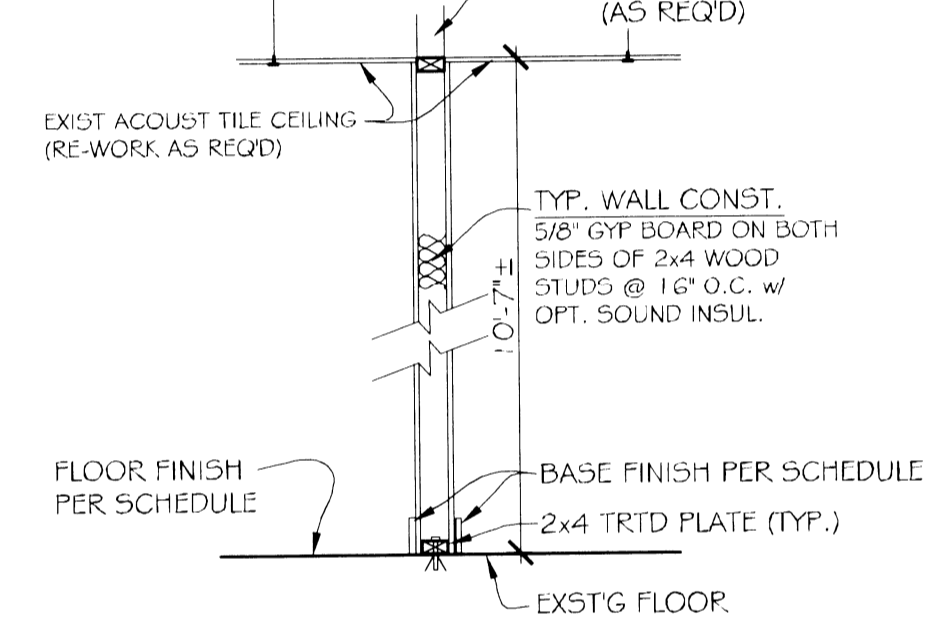
NOTE:
ALL PAINT FINISHES IN FOOD STORAGE, FOOD PREP, FOOD SERVICE AREAS, AND RESTROOMS SHALL BE A LIGHT COLOR, AND SEMI-GLOSS OR GLOSS FINISH.



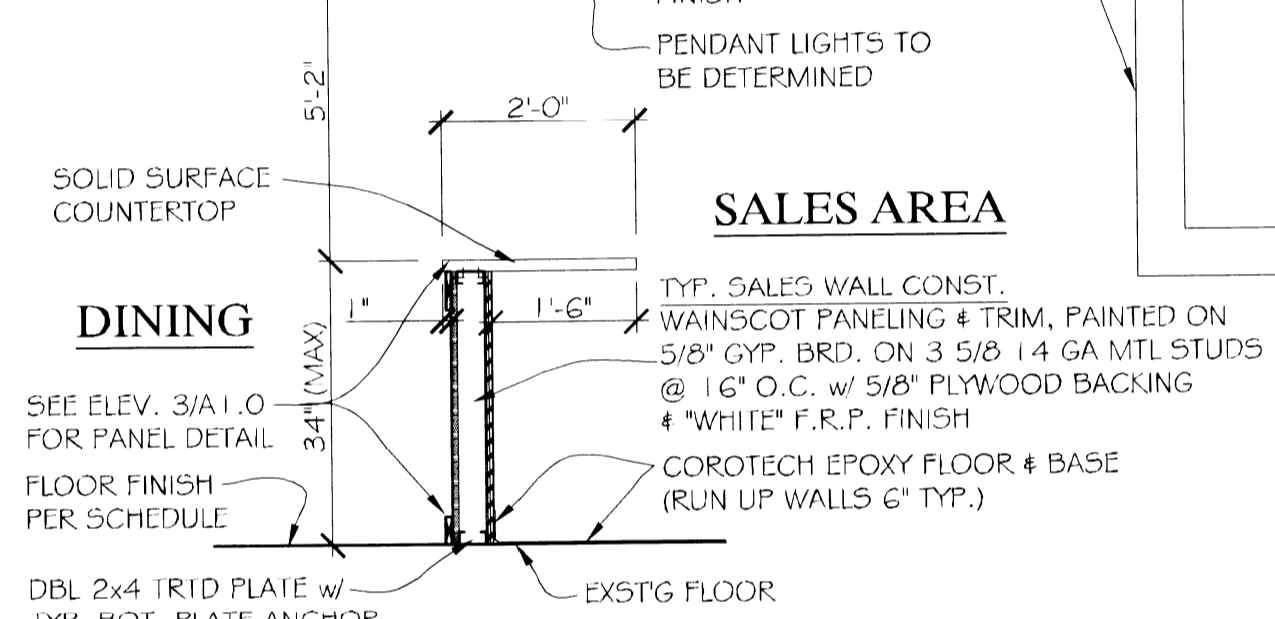
HOLD HARMLESS STATEMENT
The Architect is not overseeing the construction of this building. The use of these drawings by any Contractor, Subcontractor, Builders, Mechanic, Tradesmen or Worker shall instigate a Hold Harmless Agreement between the drawing User and the Architect. The User shall in fact agree to hold the Architect harmless for any responsibility in regard to construction means, methods, techniques, sequences or procedures and for any safety precautions and programs in connection with the work and further shall hold the Architect harmless for costs and problems arising from the negligence of Contractor, Subcontractor, Builders, Mechanic, Tradesmen or Workers. The use of these Drawings also implies that the Architect shall take no responsibility for the plan Users failure to carry out the work in accordance with the Drawing or Contract Documents.

A.D.A. ACCESSIBILITY NOTES

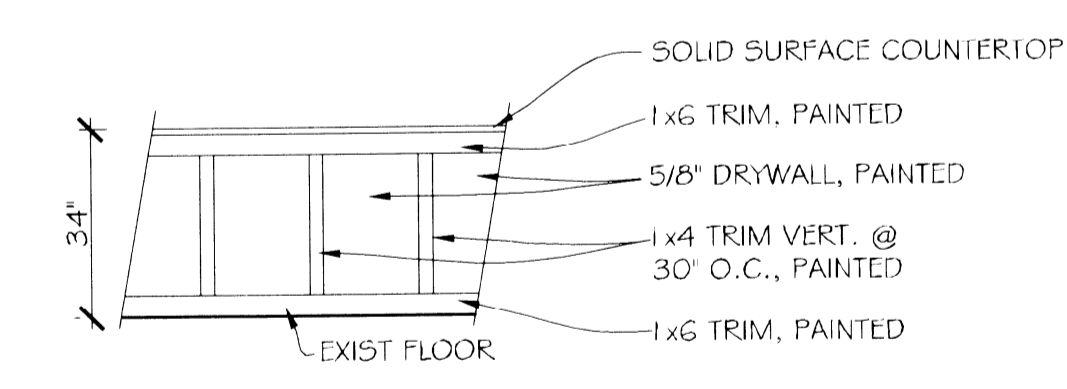
- All exit doors shall be 3'-0" x 6'-8" x 1 3/4" FPHM door and frame, providing a minimum of 32" clear opening width, with Lever type exit hardware allowing free exiting (egress) at all times.
- Change in level at door, including sill or threshold, shall not exceed 1/2". Changes in level between 1/4" and 1/2" shall be beveled.
- There shall be no change in level between the outside paving or stoop and the exterior discharge path of travel, i.e. paving.
- There shall be a minimum of 18" x 60" clear and level space to the side of the latch on the pull side of all doors.
- All stoops shall extend 80" min. perpendicular to the door.
- There will be no change in elevation between stoop and exterior discharge path of travel (walk).
- There shall be a 6' x 5' x 4" concrete stoop at all exits.
- All doors shall have lever type hardware that is ADA compliant and does not require a force greater than 8.5 lbs to open them.
- All lavatory faucets shall be self-closing type with lever handles and a minimum of 15 seconds flow time. Faucets shall also have a one-half GPM flow restrictor. Moen 8810 or equal.
- Electrical outlets shall be mounted 15" above finished floor.
- Electric switches, light, etc., shall be mounted 48" finished floor.
- All toilet rooms required to meet the Illinois Accessibility Standards and the ADA shall conform to the plans and details indicated on the drawings.
- The Emergency Warning System shall comply with all requirements listed in the Illinois Accessibility Code section 400.310(s).
- The unlatching or unlocking of doors shall not require a twisting motion.



1 TYP. NEW INT. WALL
SCALE: 1/2" = 1'-0"



2 TYP. SALES WALL
SCALE: 1/2" = 1'-0"



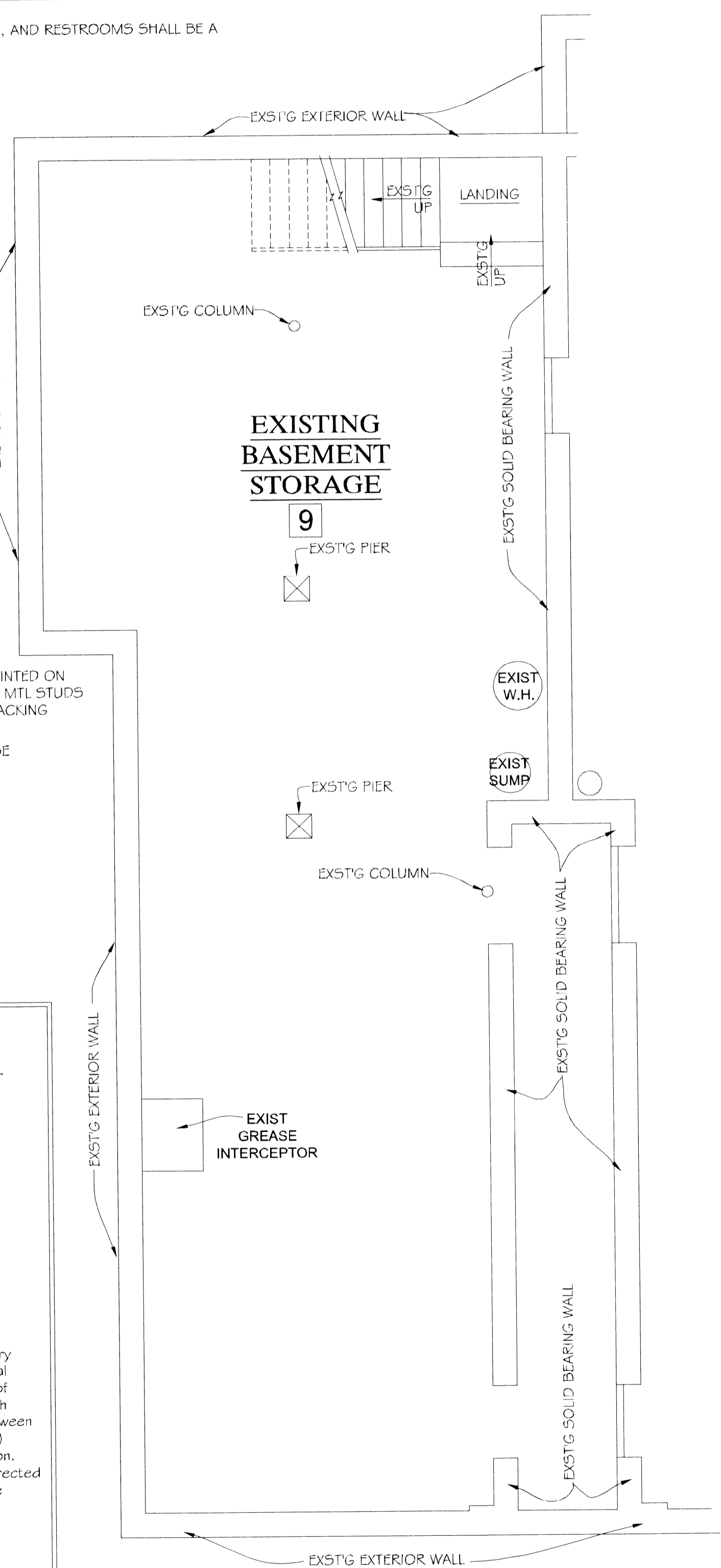
3 TYP. PREP WALL ELEV.
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

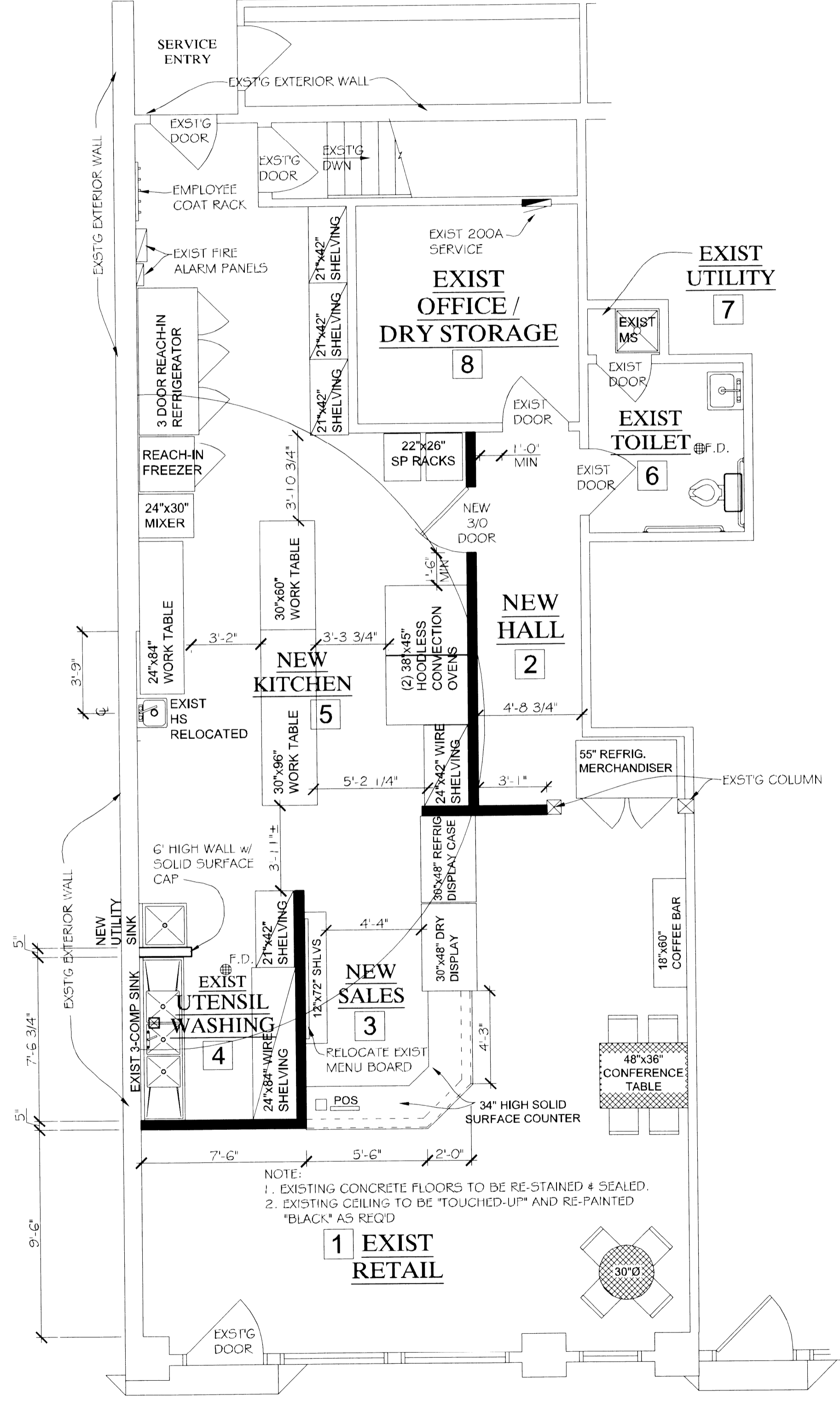
- All work shall conform to all local codes and ordinances and all applicable state and federal codes and ordinances.
- All permit fees shall be included in the base bid. The General Contractor shall be responsible for all permits and fees, whether local or state, not covered by sub-contractors.
- All Contractors and their sub-contractors shall inspect the site and verify all conditions and data pertaining to the new structures, and their relationship to the work.
- All utility locations shall be verified by the trade, or trades, doing the work with them or around them.
- All dimensions, details and conditions shall be verified in the field. Do not scale the drawings.
- Any discrepancies, conflicts, or ambiguities between the various drawings, or between the various drawings and actual conditions, shall be brought to the attention of the Architect, or Owner. Failure to do so will not relieve the Contractor or his sub-contractors of any additional costs that might be incurred as a result of discrepancies, conflicts or ambiguities.
- Structural, mechanical, plumbing and electrical drawings are supplementary to the architectural drawings. It shall be the responsibility of the General contractor to check with the architectural drawings prior to installation of structural, mechanical, plumbing or electrical work and to coordinate such installations with the architectural work. Any discrepancy or conflict between the architectural drawings and the drawings of the consulting engineer(s) drawings shall be brought to the attention of the architect for clarification. Any work installed in conflict with the architectural drawings shall be corrected by the General Contractor at his own expense, and at no expense to the Owner or Architect.
- Abbreviations used throughout the drawings are those in common use. The Architect will define the intent of any in question.
- The Owner will select and approve upon submission final color and materials as required during construction.
- Glass supplier and installer shall conform to all requirements for the safety standard for glazing materials, "16 CFR 1201" latest edition.
- Unless noted otherwise, interior partition dimensions are as follows: 5/8" drywall both sides 2x4 metal studs, 24 gauge @ 16" O.C.
- Unless noted otherwise, all plan dimensions of wood or steel stud partitions are dimensioned to rough stud face.
- All exit doors shall be equipped with either keyless turn piece or panic type hardware.
- All door hardware shall be lever type meeting the 1997 Illinois Accessibility Code and the ADA, latest editions, unless noted otherwise.

FIRE ALARM SYSTEM NOTES:

- Existing fire alarm system to remain. Verify w/ St. Charles F.D. that no changes are required.
- Approved manual pull stations shall be installed in approved locations, and tied to an approved monitoring system service per local code.
- Approved audio and visual alarm devices shall be installed in approved locations so all occupants may effectively hear them.



BASEMENT PLAN
SCALE: 1/4" = 1'-0"



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

ARCHITECTURAL RESOURCES
W. Alex Teipel - Architect
Robert M. Akers - Architect
427 West State St. Geneva, Illinois 60134
(630) 232-1774
watpeip3@gmail.com / robert-akers@sbglbhal.net

I hereby certify that these plans were prepared under my direct supervision and to the best of my knowledge they comply with the building ordinances, zoning ordinances and all other applicable codes and ordinances including the Illinois Accessibility Code and ANSI A117.1-1986
Expires: 11/30/16

FLOOR PLANS
Tenant Build-out for
BLACKBERRY BAKERY
320 W. Main Street
St. Charles, Illinois 60174

Date 01/19/16
Scale AS NOTED
Drawn R.M.A.
Job 16-2482
Sheet
A1.0
Of 1 Sheet

ELECTRICAL SYMBOLS	
⊞	SINGLE POLE SWITCH
⊞	DUPLEX RECEPTACLE
⊞	FLOOR MOUNTED DUPLEX RECEPTACLE
⊞	SPECIAL OUTLET - 208V 1Ø OR 3Ø
⊞	SAFETY DISCOUNT SWITCH
E.C.	ELECTRICAL CONTRACTOR
O.S.	OCCUPANCY SENSOR
WP.	WEATHER PROOF
⊞	MOTOR OUTLET
⊞	DUPLEX RECEPTACLE w/ GROUND FAULT
⊞	JUNCTION BOX
⊞	LIGHTING FIXTURE (NIGHT LIGHT)
▽	DATA CONNECTION
▽	PHONE CONNECTION
⊞	LED CANS
⊞	SMALL DECORATIVE PENDANTS
⊞	LARGE DECORATIVE PENDANTS
⊞	EMERGENCY LIGHT
⊞	EMERGENCY LIGHT w/ REMOTE HEAD
⊞	EXIT LIGHT
⊞	EM. PULL STATION
⊞	STROBE/HORN
⊞	ELECTRICAL PANEL
ETR	EXISTING TO REMAIN

KEY	
a	EXISTING 2x4 RECESSED
b	EXISTING EXIT LIGHT / EMERGENCY LIGHT
c	DROPPED PENDANTS (FROM TRACK) 12W LED LAMPS (REPLACES 90W) BY OWNER
d	NEW BLACK TRACK w/ BLACK HEADS ECONOLIGHT# E-KXA 423UIK OR EQUAL BY E.C.
e	NEW / EXISTING EXIT LIGHT BY E.C.
f	NEW / EXISTING EMERGENCY LIGHT BY E.C.
g	2x4 SURFACE MNT. LED FIXTURE ECONOLIGHT# E-TR24L504U 50W NEUTRAL WHITE (4000K) - BY E.C.
h	EXISTING 4' FLUORESCENT

ELECTRICAL NOTES

1. ELECTRICAL CONTRACTOR TO PROVIDE / INSTALL ALL CONDUIT / WIRING FOR A COMPLETE ELECTRICAL LIGHTING AND POWER SYSTEMS
2. ELECTRICAL CONTRACTOR TO FOLLOW N.E.C. 2008 AND LOCAL ST. CHARLES AMENDMENTS PER CITY
3. VOID
4. MIN. 3/4" CONDUIT, MIN WIRE #12 COPPER
5. COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL ROOF TOP UNITS. VERIFY FINAL CIRCUIT BREAKER / WIRE SIZES BEFORE INSTALLATION.
6. VOID
7. ALL 120V OUTLETS IN KITCHEN AREA TO BE G.F.C.I.
8. ALL OUTLETS TO BE SPEC GRADE 20AMP 120V
9. ALL WORK / MATERIAL AND SYSTEMS GUARANTEE FOR (1) YEAR
10. FIRE ALARM SYSTEMS FURNISH / INSTALLED BY OTHERS
11. ELECTRICAL CONTRACTOR TO PROVIDE ALL NEW PANEL SCHEDULES
12. VOID
13. ELECTRICAL CONTRACTOR TO COORDINATE LIGHTING LAYOUT, ETC... WITH ARCHITECT.
14. NEW DIMMERS MANUFACTURER LUTRON NOVA SERIES. ELECTRICAL CONTRACTOR TO SIZE DIMMERS, TYPES, ETC... MAX. 80% LOAD.
15. VOID
16. VOID

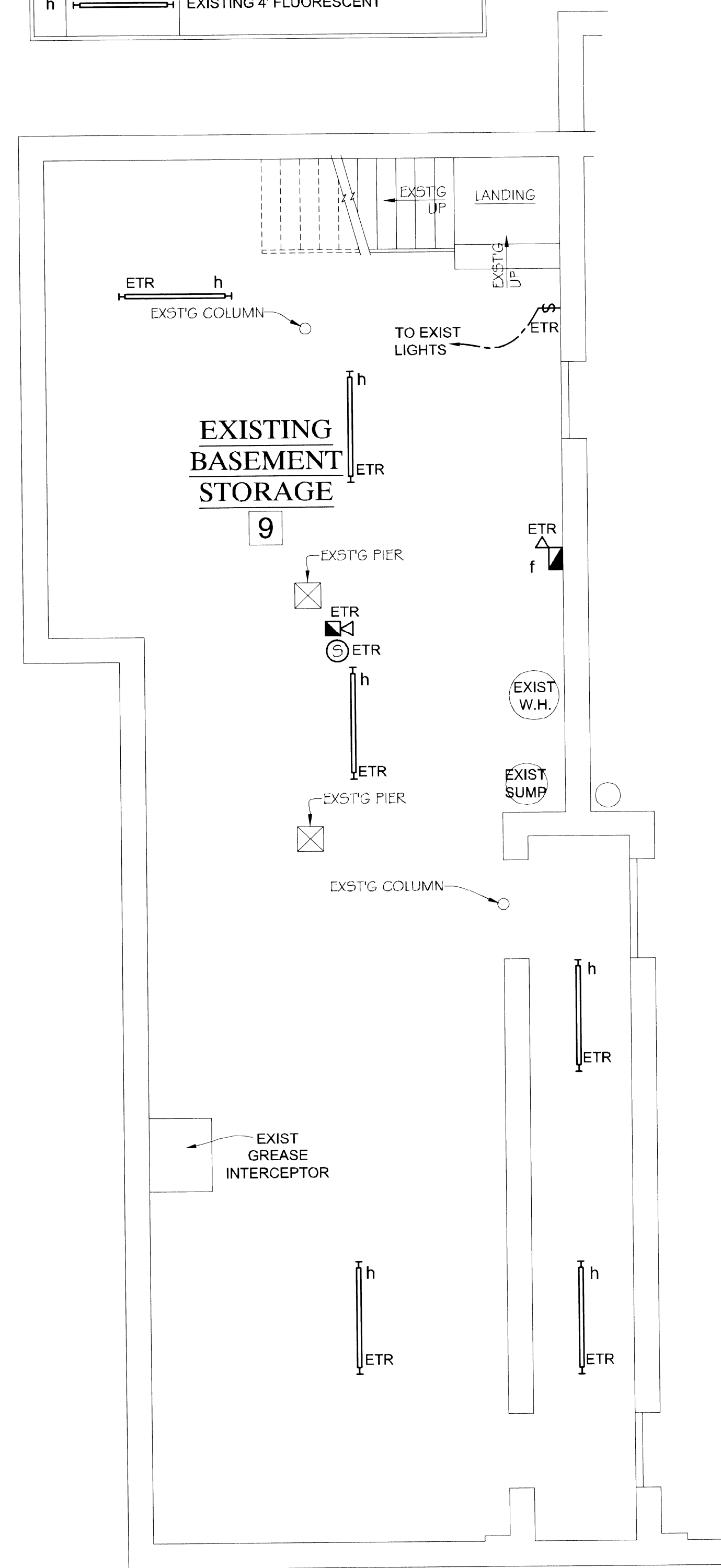
ELECTRICAL NOTES

17. ELECTRICAL CONTRACTOR TO VERIFY FINAL SHOP DRAWINGS FROM FOOD EQUIPMENT SUPPLIER FOR FINAL OUTLET SIZE, VOLTAGES AND LOCATIONS.
18. EXISTING ROOFTOP UNITS & MUA WIRED TO EXISTING ELEC. PANEL
19. EMERGENCY BATTERY UNITS WIRED TO LOCAL LIGHTING CIRCUIT "HOT" AHEAD OF LIGHT SWITCH.
20. EXIT SIGNS WIRED TO LOCK MIN #12. PAINTED RED.
21. PROVIDE GROUND WIRE MIN #12 ON ALL CIRCUITS OR PER N.E.C.

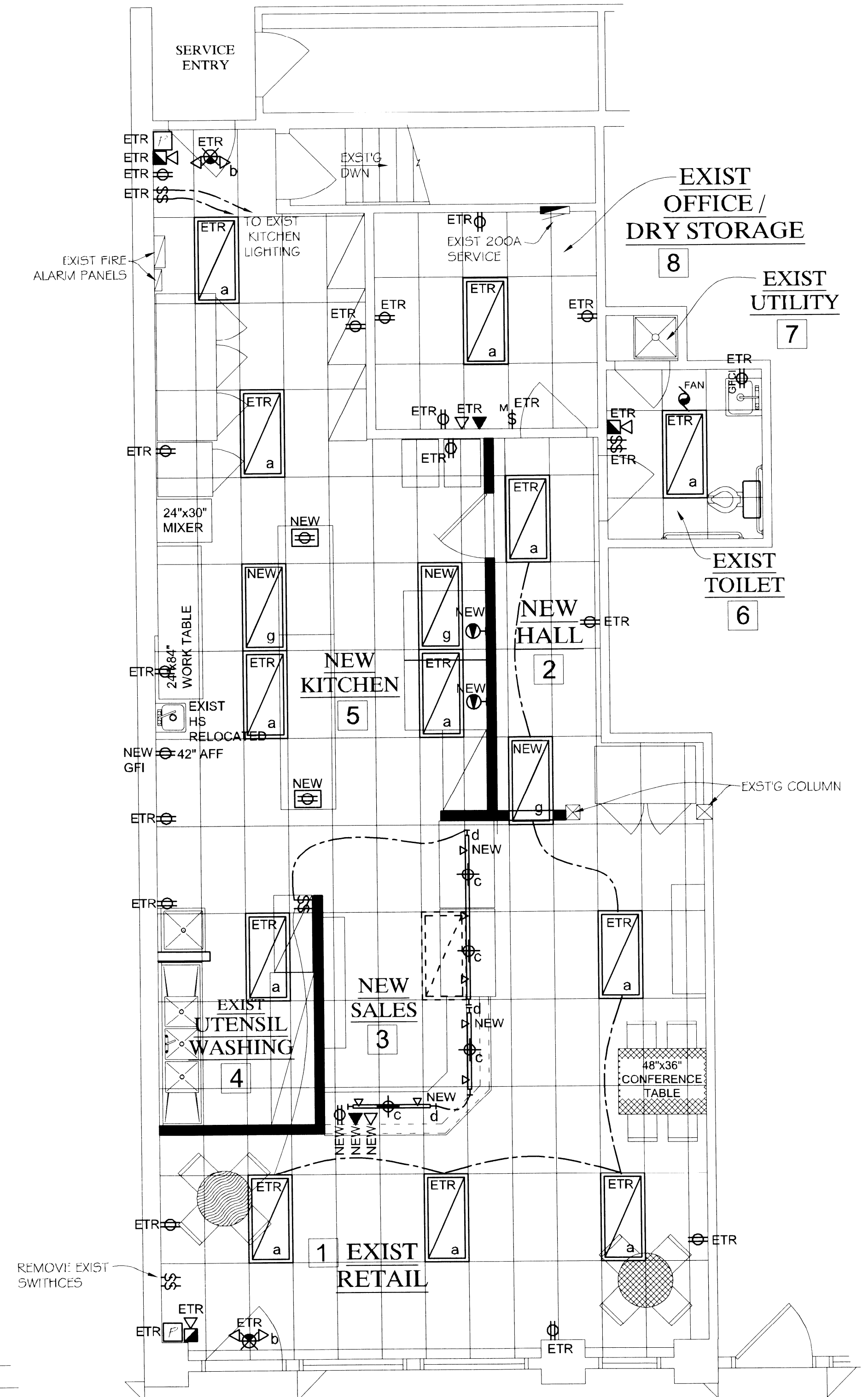
Lighting notes:

1. Existing lighting to remain active, rewire to new switch locations (SEE TENANT).
2. New exit signs connect into existing exit sign cct., to lock C.B. paint red.

NOTE :
All Lighting Wired to "MDP"
Min : #12 Wire
Min: 3/4" Conduit
Max: (9) Wires per Homerun



BASEMENT ELECT. PLAN
SCALE: 1/4" = 1'-0"



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

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Expires: 11/30/16

ELECTRICAL PLANS & PLUMB. RISER DIA.'s
Tenant Build-out for
BLACKBERRY BAKERY
320 W. Main Street
St. Charles, Illinois 60174

Date 01/19/16
Scale AS NOTED
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Of 1 Sheet

GENERAL NOTES

THE WORK INCLUDES MODIFICATION TO THE EXISTING PLUMBING SYSTEM AND PROVIDING NEW MATERIALS, FITTINGS AND ACCESSORIES NECESSARY FOR A COMPLETE FUNCTIONING PLUMBING SYSTEM. THE WORK ALSO INCLUDES ROUGH-IN AND FINAL CONNECTIONS TO FOOD SERVICE EQUIPMENT AND BEVERAGE DISPENSING EQUIPMENT PROVIDED BY OTHERS. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND/OR ORDINANCES AND IS SUBJECT TO INSPECTION.

HOOK-UP CHARGES, PERMITS AND ALL OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING PLUMBING SYSTEM ARE INCLUDED AS A PART OF THIS SECTION.

WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT. PROVIDE A SEPARATE LINE ITEM DEDUCT AMOUNT ON THE PROPOSAL FORM TO DELETE WARRANTY SERVICE, AT THE OWNER'S OPTION.

THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR PLUMBING WORK ARE DIAGNOSTIC, SHOWING THE GENERAL LOCATION, TYPE, FIXTURES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD ROUGH-IN DRAWINGS FOR PLUMBING FIXTURE INSTALLATION REQUIREMENTS. COMPLY WITH ALL APPLICABLE ADA INSTALLATION REQUIREMENTS.

COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

PIPING SYSTEMS - GENERAL. ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIELECTRIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION.

PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEMS FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED.

FIXTURES/EQUIPMENT FURNISHED BY OTHERS: PLUMBING CONTRACTOR SHALL PROVIDE UTILITY CONNECTIONS REQUIRED SUCH AS WATER, GAS, AIR, SUPPLIES, WASTE OUTLET, TRAPS, ECT. AT ALL PLUMBING TYPE FIXTURES OR EQUIPMENT FURNISHED BY OWNER, GENERAL CONTRACTOR, FOOD SERVICE CONTRACTOR, EQUIPMENT SUPPLIER, ETC. INCLUDED ARE STOP VALVES, ESCUTCHEONS, AND CHROME PLATED BRASS TUBING WITH COMPRESSION FITTINGS.

CONDENSATE AND INDIRECT DRAIN PIPING: TYPE M COPPER TUBING UP TO 1" ID, TYPE DWV TUBING AND FITTINGS FOR 1-1/4" AND LARGER SIZES.

CLEANOUTS: PROVIDE CLEANOUTS AT THE END OF EACH HORIZONTAL RUN AND AT THE BASE OF ALL VERTICAL WASTE AND DRAIN PIPES. CLEANOUTS SHALL BE OF THE SAME SIZE AS THE PIPES THEY SERVE, CONFORMING TO CODE REQUIREMENTS. PROVIDE SUITABLE WALL OR FLOOR CLEANOUTS WITH ACCESSORIES TO OBSCURE FROM VIEW.

PIPE INSULATION: INSULATE ALL LISTED SERVICE PIPING AS FOLLOWS: DOMESTIC COLD/HOT WATER, HOT WATER RETURN, STORM WATER PIPING, PROVIDE 1" PREFORMED FIBERGLASS, AS/55-11, FLAME SPREAD 25 SMOKE DEVELOPED 50, ASTM C-547, FOR CONDENSATE PIPING PROVIDE 1/2" ABOVE WHERE PERMITTED BY LOCAL CODES, PROVIDE 1/2" SELF-ADHESIVE UNICELLULAR FOAM PIPE INSULATION WITH FIRE-FORMED PVC FITTING COVERS - EQUAL TO SELF-ADHESIVE ARMSTRONG 2000 WITH K-FACTOR OF 0.21 AT 75 DEGREES MEAN TEMPERATURE. INSULATE ANY EXPOSED CONDENSATE PIPING WITH WASTE TEMPERATURE BELOW 60 DEGREES F.

SHUTOFF VALVES, WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE, FOOD SERVICE EQUIPMENT ITEM OR OTHER EQUIPMENT ITEM TO FACILITATE ISOLATION FOR REPAIR, OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS #102-1 BALL VALVE, CHROME-FINISHED BRONZE, TEFLOON SEATS AND PACKING, 400 LB. W.G. SOLDER END.

ACCESS PANELS SHALL BE PROVIDED WHERE CONCEALED CONTROL DEVICES, VALVES, ETC. ARE CONCEALED WITHIN WALLS, WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH LAY-IN SUSPENDED CEILINGS, ACCESS PANELS ARE NOT REQUIRED.

INSTALLATION: THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT, AND OMIT ESCUTCHEONS.

REPAIR EXISTING PLUMBING SYSTEM COMPONENTS DAMAGED BY CONSTRUCTION OPERATIONS AND RESTORE TO ORIGINAL CONDITIONS.

TEST WATER SYSTEM UNDER 150 PSIG HYDROSTATIC PRESSURE, FOR FOUR (4) HOURS MINIMUM. WHEN TESTING INDICATES MATERIALS OR WORKMANSHIP IS DEFICIENT, REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST UNTIL STANDARDS ARE ACHIEVED.

NATURAL GAS PIPING SYSTEM

PROVIDE A COMPLETE GAS PIPING SYSTEM TO SERVE GAS FIRED HVAC EQUIPMENT, DOMESTIC WATER HEATERS AND EQUIPMENT FURNISHED BY OTHERS, AS NOTED ON THE DRAWINGS. PROVIDE EITHER THREADED STEEL OR MALLEABLE IRON PIPE WITH MALLEABLE FITTINGS OR WELDED STEEL. PROVIDE ALL UNIONS, SHUTOFF VALVES AND DIRT LEGS REQUIRED BY NFPA 54 AND GOVERNING LOCAL CODES AND AT EACH GAS APPLIANCE CONNECTION, PROVIDE ALL TESTS, METERS, INSPECTIONS, HANGERS AND EQUIPMENT CONNECTIONS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

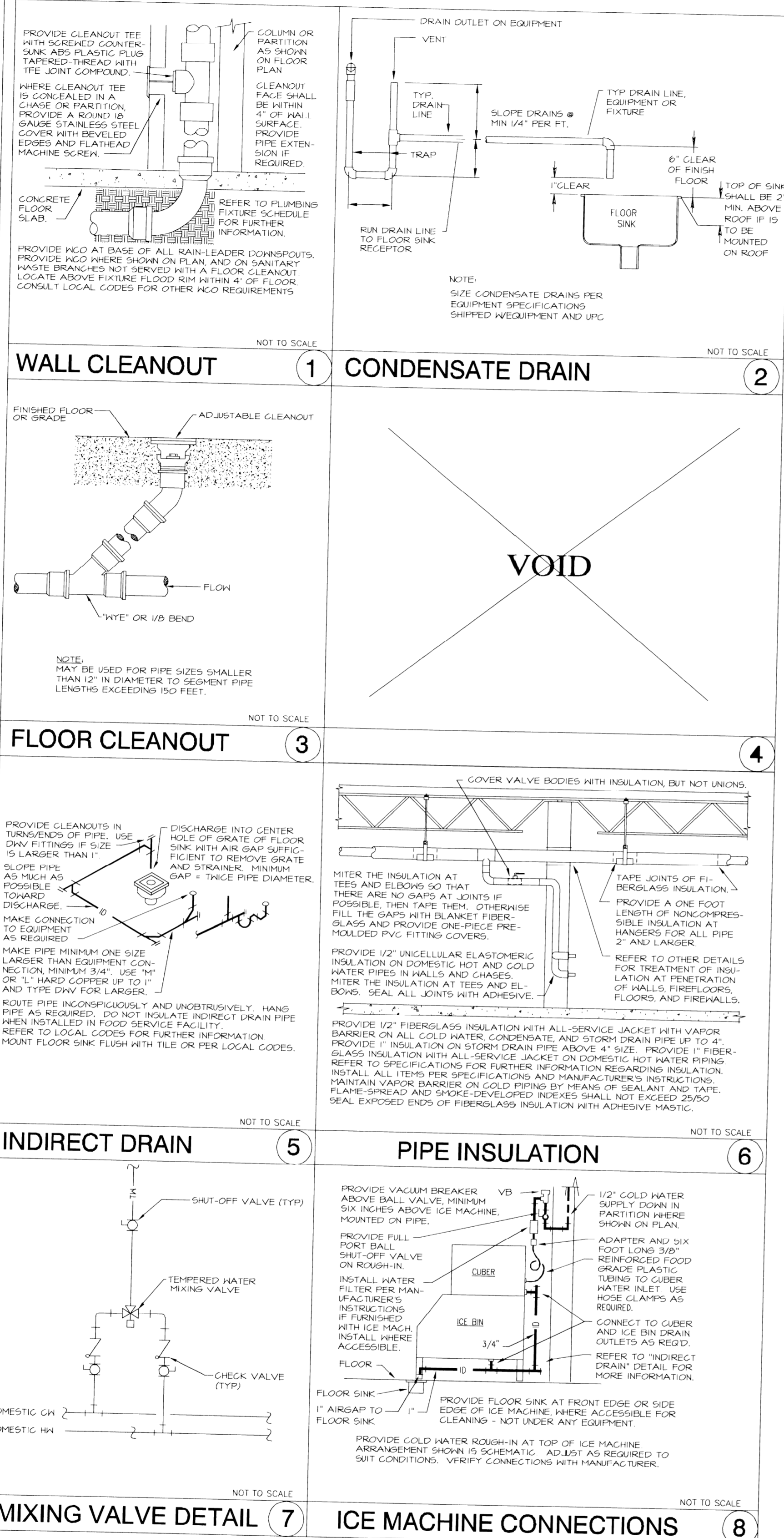
PLUMBING SPECIFICATIONS:

- CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING PLUMBING FIXTURE, EQUIPMENT AND PIPING PRIOR TO SUBMISSION OF BIDS.
- CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS, FEES, LICENSES AND ALL OTHER ARRANGEMENTS FOR WORK.
- SUBMIT CATALOGS CUTS OF ALL ITEM TO BE INSTALLED AND SHOP DRAWINGS FOR REVIEW.
- CONTRACTOR SHALL VERIFY AND REMOVE ALL FIXTURES, EQUIPMENT AND PIPING TO PREPARE FOR NEW WORK, WHETHER SHOWN ON THE DRAWINGS OR NOT.
- CONTRACTOR SHALL COORDINATE ALL FIXTURES, EQUIPMENT AND PIPING LOCATIONS WITH ALL TRADES IN FIELD. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FIXTURES.
- PROVIDE ACCESS PANELS FOR ALL VALVES OR EQUIPMENT LOCATED ABOVE NON-ACCESSIBLE CEILING OR WALL.
- CONTRACTOR SHALL INSTALL ALL FIXTURES, EQUIPMENT AND PIPING IN ACCORDANCE WITH THE CHICAGO PLUMBING CODE.
- CONTRACTOR SHALL PERFORM ALL THE NECESSARY ACCEPTANCE TEST AS REQUIRED BY THE CHICAGO PLUMBING CODE.
- CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR AGAINST ALL DEFECTS ON MATERIAL, EQUIPMENT AND WORKMANSHIP.
- PROVIDE A COMPETENT OPERATING TECHNICIAN TO INSTRUCT THE OWNER IN THE OPERATION AND MAINTENANCE OF ALL EQUIPMENTS.
- INSULATION: DOMESTIC HOT AND COLD WATER PIPING SHALL BE INSULATED WITH 1" THICK FIBER GLASS PREFORMED, AVERAGE THERMAL CONDUCTIVITY OF 0.25 BTU/HR/FT/IN/DEG AT 100 DEGREE FAHRENHEIT MEAN TEMP PER INCH OF THICKNESS SPECIFIED. ALL PURPOSE FLAME RETARDANT JACKET WITH BUILT-IN VAPOR BARRIER.

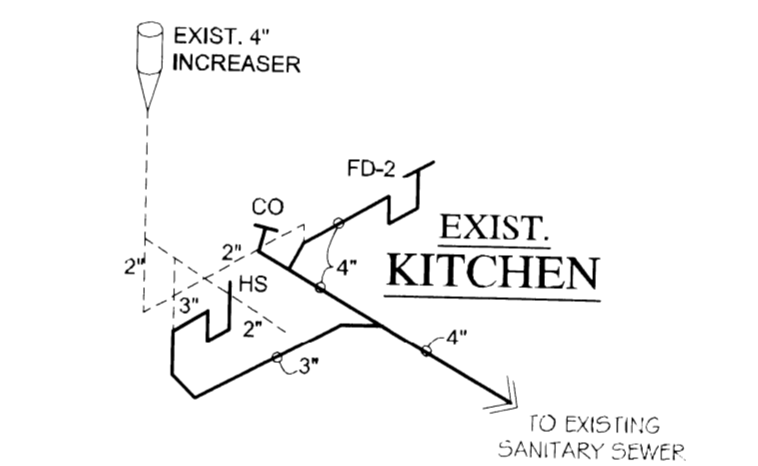
- PLUMBING PIPING AND ACCESSORIES:
 - SUSPENDED WASTE AND VENT PIPING, PIPES 3" AND LARGER SHALL BE HUB AND SPIGOT SERVICE WEIGHT CAST IRON PIPE, 2-1/2" AND SMALLER SHALL BE TYPE "M" COPPER
 - UNDERGROUND WASTE PIPING, PIPING SHALL BE 2-1/2" AND SMALLER SERVICE WEIGHT CAST IRON PIPE, 4" MINIMUM
 - INTERIOR HOT AND COLD WATER PIPING, PIPES 2-1/2" AND SMALLER SHALL BE COPPER TYPE "L" WITH NO LEAD SOLDER.
 - FLOOR CLEANOUTS SHALL BE ROUND NICKEL BRONZE EQUAL TO ZURN ZB-1400.
 - VALVES SHALL BE BY MILWAUKEE, NIBCO OR WATTS.
 - ALL LAVATORY FAUCETS FOR PUBLIC USE SHALL BE PROVIDED WITH EITHER THERMOSTATIC, PRESSURE BALANCING OR COMBINATION CONTROLLED AUTOMATIC SAFETY WATER MIXING DEVICE. ADJUSTED TO A MAXIMUM SETTING OF 100 DEGREES FAHRENHEIT.
 - PROVIDE DIELECTRIC FITTING FOR CONNECTION OF DISSIMILAR METAL.

NOTE:

- BACKFLOW PROTECTION SHALL BE PROVIDED FOR ALL SOIDA COFFEE, BEVERAGE AND ICE MACHINES. A STAINLESS STEEL DOUBLE CHECK WITH AN ATMOSPHERIC VENT FOR THE WATER SUPPLY AND CARBONATER WHEN APPLICABLE.
- REMOVE EXISTING FIXTURE PIPING AND ACCESSORIES, PLUG/CAP WASTE, VENT AND WATER PIPING TO THE NEAREST ACTIVE MAIN/RISER TO AVOID DEAD-END RUNS.
- SCHEDULE 40 PVC PIPING MAY BE USED IF ALLOWED BY APPLICABLE CODE
- PROVIDE SEPARATE DESIGNATED WATERLINES WITH TESTABLE RFI (REDUCED PRESSURE ZONE BACKFLOW DEVICE) FOR ANY CHEMICAL SYSTEMS AT JANITORIAL SINK OR 3-COMPARTMENT SINK.



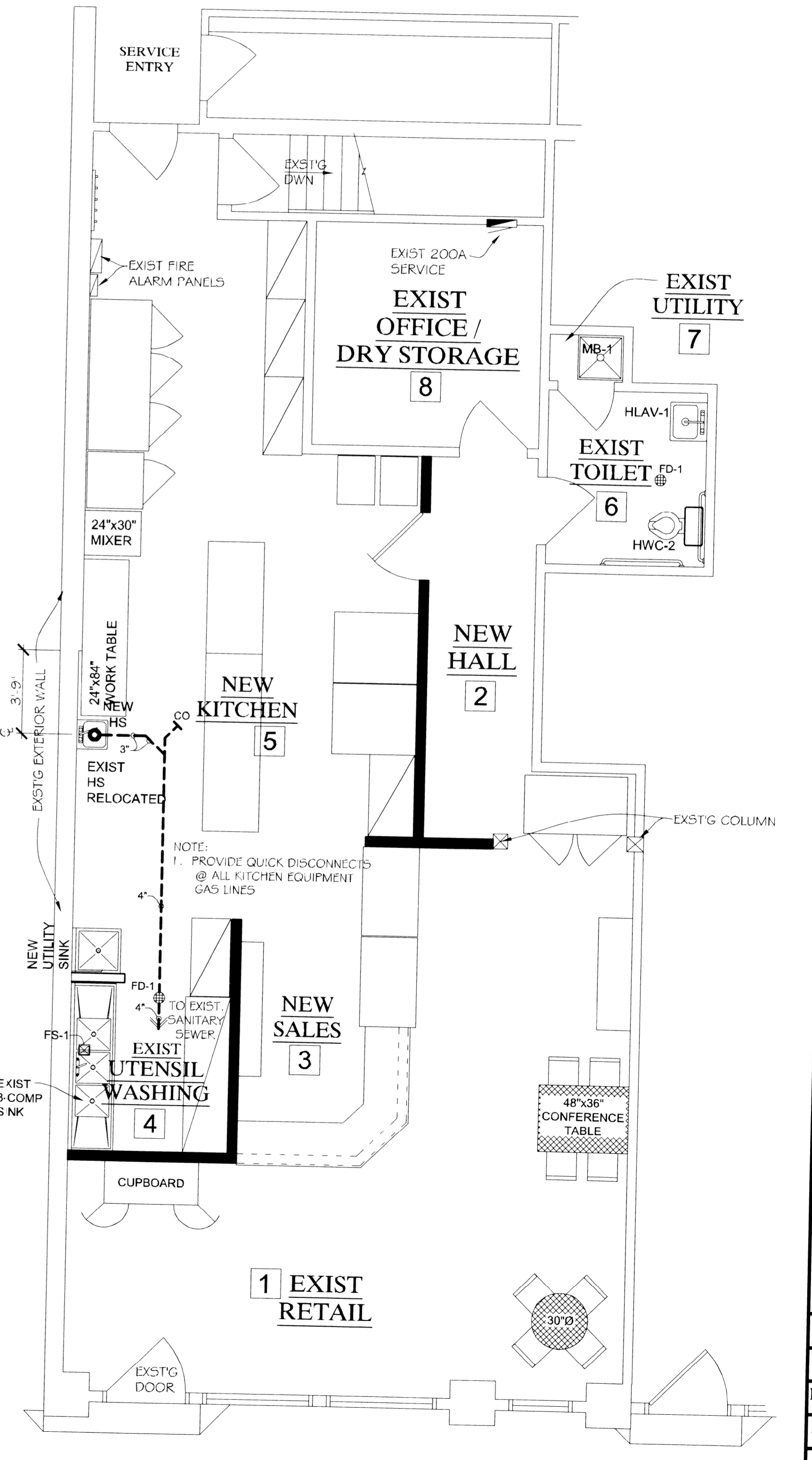
PLUMBING FIXTURE LIST	
WH-1	EXISTING 40 GAL WATER HEATER
NOTE: FINAL COLOR SELECTION OF ALL - FIXTURES SHALL BE COORDINATED WITH THE TENANT	
WC-1	EXISTING TO REMAIN. NO CHANGES
HWC-2	EXISTING TO REMAIN. NO CHANGES
UR-1	EXISTING TO REMAIN. NO CHANGES
HLAV-1	EXISTING TO REMAIN. NO CHANGES
MB-1	EXISTING MOP BASIN. NO CHANGES
FD-1	EXISTING FLOOR DRAIN. NO CHANGES
FD-2	FINISHED FLOOR DRAIN BASED ON ZURN MODEL Z 415 DURA-COATED CAST IRON BODY w/ BOTTOM OUTLET, TYPE B POLISHED NICKEL BRONZE STRAINER
FS-1	EXISTING FLOOR SINK. NO CHANGES
FS-2	FLOOR SINK BASED ON ZURN MODEL 1900 SINK/FLOOR RECEPTOR 12" x 12" x 6" DEEP CAST IRON BODY AND SQUARE SLOTTED METAL BODY GRATE WITH INTERIOR BOTTOM DOME STRAINER. REFER TO KITCHEN DRAWINGS FOR GRATE TOP
CO	CLEANOUTS BASED ON ZURN
RCP-1	EXISTING LARGE CAPACITY GREASE INTERCEPTOR (SIZED FOR ENTIRE BUILDING) - NO CHANGES



PLUMBING WASTE DIAGRAM
NOT TO SCALE

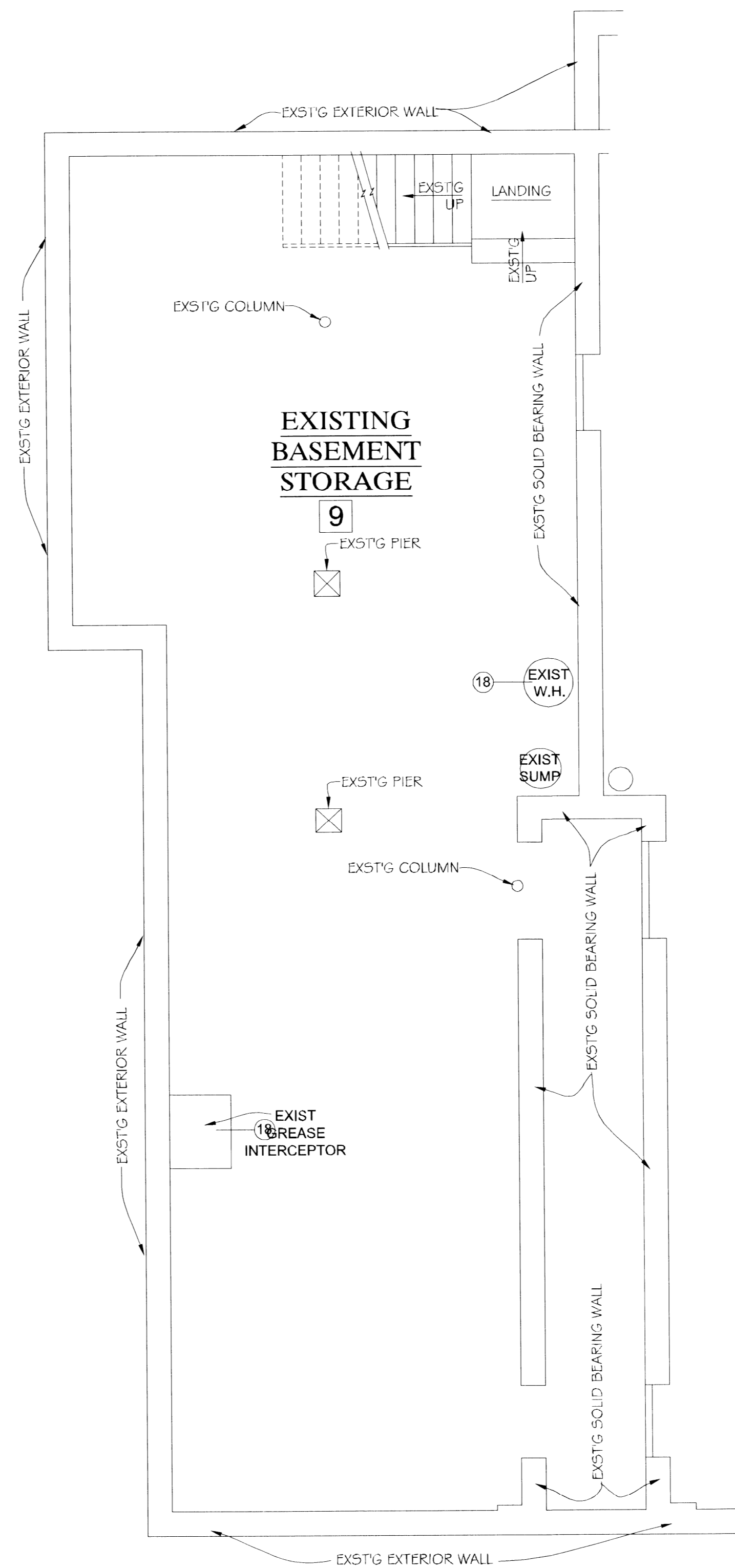


PLUMBING SUPPLY DIAGRAM
NOT TO SCALE

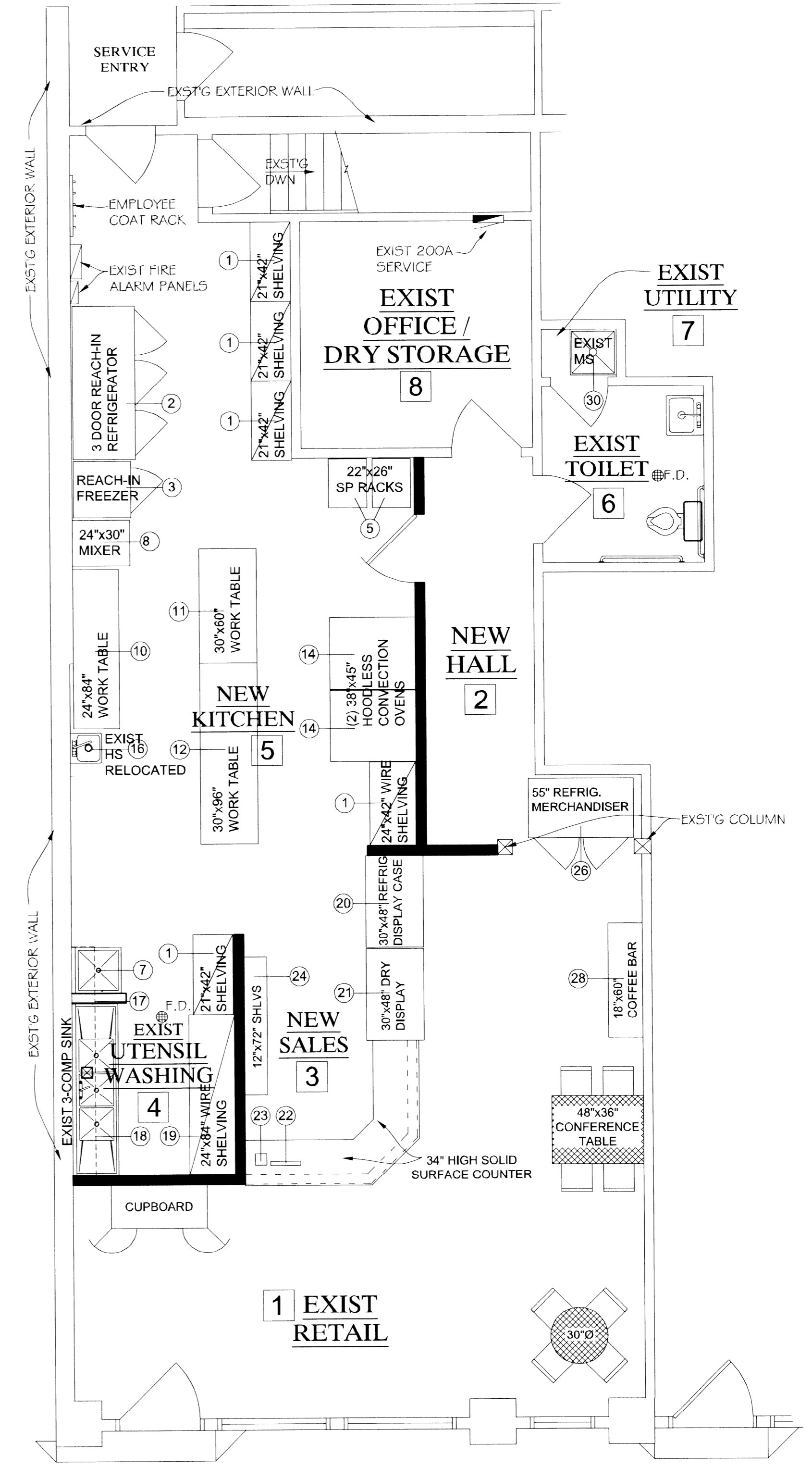


PLUMBING PLAN
SCALE: 1/4" = 1'-0"

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PLUMBING PLAN Tenant Build-out for BLACKBERRY BAKERY 320 W. Main Street St. Charles, Illinois 60174	
Date	01/19/16
Scale	AS NOTED
Drawn	R.M.A.
Job	16-2482
Sheet	
P1.0 Of 1 Sheet	



BASEMENT PLAN
SCALE: 1/4" = 1'-0"



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

REVISIONS	BY



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Expires: 11/30/16

FOOD SERVICE FLOOR PLANS
Tenant Build-out for
BLACKBERRY BAKERY
320 W. Main Street
St. Charles, Illinois 60174

Date 01/19/16
Scale AS NOTED
Drawn R.M.A.
Job 16-2482

Sheet
FS.1

Of 2 Sheets

FOOD SERVICE NOTES

- ALL FOOD SERVICE EQUIPMENT IS TO BE PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR, AND MUST BE INSTALLED BY THE APPROPRIATE TRADES FOLLOWING STATE AND LOCAL CODES.
- ALL DIMENSIONS SHOWN ARE FROM FINISHED WALLS, FLOORS, CEILINGS AND/OR FROM CENTER LINE OF STRUCTURAL COLUMNS. DIMENSIONS ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ALL TRADES UTILIZING THESE PLANS. THESE DIMENSIONS ARE THE APPROXIMATE LOCATIONS REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND ALLOWANCES MUST BE MADE TO EXTEND TO THE FINAL CONNECTION.
- UTILITIES SHOWN HERE ARE FOR ITEMS OF FOOD SERVICE EQUIPMENT ONLY AND ARE THE MINIMUM REQUIRED TO OPERATE THE EQUIPMENT. LOCATIONS OF ANY ADDITIONAL UTILITIES MAY BE REQUIRED SHALL BE DETERMINED BY THE ARCHITECT/ENGINEER.
- TRADES ARE TO ADHERE TO MANUFACTURERS, SHOP DRAWINGS, SPECIFICATIONS AND BROCHURE BOOKS TO DETERMINE THE PROPER CONNECTION REQUIREMENTS FOR THE KITCHEN EQUIPMENT.
- TRADES ARE TO PROVIDE ALL FINAL CONNECTIONS FOR KITCHEN EQUIPMENT.
- COMPONENTS PROVIDED BY TRADES IN THE INSTALLATION OF KITCHEN EQUIPMENT SHALL NOT INTERFERE WITH THE OPERATION OF ITEMS OF FOOD SERVICE EQUIPMENT.
- FLOOR SINKS SHALL BE INSTALLED FLUSH WITH FINISHED FLOOR WITH OR WITHOUT GRATE COVER AS INDICATED ON PLAN, OR AS PER LOCAL CODES.
- GREASE TRAPS SHALL BE PROVIDED BY PLUMBING CONTRACTOR AND SHALL BE RECESS MOUNTED, FLUSH WITH TOP OF FINISHED FLOOR. GREASE TRAPS SHALL NOT BE LOCATED BENEATH ANY ITEM OF FOOD SERVICE EQUIPMENT AND REMOVAL OF COVER SHALL NOT INTERFERE WITH THE OPERATION OF EQUIPMENT ITEMS.
- ALL DRAIN LINES FOR DISPOSERS SHALL BY-PASS GREASE TRAPS.
- DRAIN LINES FROM EVAPORATOR COILS SHALL BE TRAPPED OUTSIDE OF WALK-IN COOLER/FREEZER AND EXTENDED OVER BUILDING DRAIN BY PLUMBING CONTRACTOR.
- TRENCH TYPE DRAIN TROUGH SHALL BE FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR AND INSTALLED BY THE APPROPRIATE TRADE IN ACCORDANCE TO STATE AND LOCAL CODES.
- TRADES ARE TO COORDINATE WITH FIRE PROTECTION CONTRACTOR AND INSTALL SHUNT TRIPS IN ELECTRICAL PANELS TO SHUT OFF COOKING EQUIPMENT ITEMS IN CONJUNCTION WITH FIRE SYSTEMS AND RUN TO FIRE ALARM AND VALVES.
- TRADES ARE TO COORDINATE WITH FIRE PIPE PROTECTION CONTROL AND INSTALL AUTOMATIC FIRE GAS SHUT OFF VALVE IN LINE AND WIRE VALVE TO CONTROL PANEL IF REQUIRED.
- GAS MAIN SHOULD BE PROVIDED WITH A READILY ACCESSIBLE MANUAL SHUT OFF VALVE BY PLUMBING CONTRACTOR. A LOOPED GAS SERVICE IS RECOMMENDED. SIZE OF GAS MAIN TO BE DETERMINED BY ARCHITECT/ENGINEER.
- PLUMBING CONTRACTOR SHALL PROVIDE MANUAL GAS SHUT OFF DEVICES AT EACH INDIVIDUAL PIECE OF FOOD SERVICE EQUIPMENT. PLUMBING CONTRACTOR IS TO PROVIDE AND INSTALL GAS PRESSURE REGULATOR VALVE TO INSURE EQUIPMENT TO OPERATE AT PROPER GAS PRESSURE.
- ALL LIGHT FIXTURES IN FOOD STORAGE, PREPARATION, SERVICE OR DISPLAY FACILITIES, AS WELL AS UTENSIL CLEANING AND STORAGE AREAS SHALL HAVE SHIELDING OVER BULBS.
- KITCHEN EQUIPMENT CONTRACTOR SHALL PROVIDE WALK-IN COOLER/FREEZER ASSEMBLIES COMPLETE WITH OUTLET BOXES, DOOR HEATERS AND ALL SYSTEM COMPONENTS WIRE TO A SINGLE POINT OF CONNECTION.
- DRAIN LINE FROM FREEZER COIL SHALL BE WRAPPED WITH HEATER CABLE TAPED AND INSULATED TO PREVENT FREEZING OF CONDENSATE IN THE LINE. BY PLUMBING CONTRACTOR.
- ALL PENETRATIONS INTO WALK-IN COOLER/FREEZER ASSEMBLIES SHALL BE MADE BY THE KITCHEN EQUIPMENT CONTRACTOR.
- TRADES SHALL SEAL ALL PENETRATIONS MADE INTO WALK-IN COOLER/FREEZER ASSEMBLIES, REFRIGERATORS AND EXHAUST VENTILATORS WITH METHODS AND MATERIALS AS APPROVED BY EQUIPMENT MANUFACTURER.
- ELECTRICAL OUTLETS AND PIPING ROUGHED UP UNDER ISLAND EQUIPMENT TO BE STUBBED UP A MAXIMUM OF 6" OR LESS AS NOT TO INTERFERE WITH INSTALL EQUIPMENT WITH ALL FLOOR OPENINGS SEALED WATER TIGHT OR 1" MIN. A.F.F. OR FLUSH WITH CURB.
- ELECTRICAL CONTRACTOR SHALL PROVIDE EMPTY CONDUIT WITH J-BOXES FOR INSTALLATION OF OWNER SUPPLIED CASH REGISTER SYSTEM. AS WELL AS TO PROVIDE COMPUTER GRADE, ISOLATED GROUND ELECTRICAL SERVICE FOR ELECTRONIC CASH REGISTER EQUIPMENT. VERIFY EXACT REQUIREMENTS WITH EQUIPMENT SUPPLIER.
- ELECTRONIC CONTRACTOR SHALL PROVIDE EMPTY CONDUIT RACEWAY SYSTEM FOR BEVERAGE LINES AS INDICATED ON THE SPECIAL CONDITIONS PLAN AND DETAILS. CONDUIT SHALL HAVE 24" MIN. RADIUS BEND.
- CEILINGS SHALL BE SMOOTH, NON-ABSORBENT, WASHABLE AND LIGHT COLORED. BY CONTRACTOR.
- CONCRETE AND/OR MASONRY BASES AND CURBS SHALL BE SMOOTH AND LEVEL. ALL EXPOSED SURFACES SHALL BE FINISHED SAME AS FINISHED FLOOR. SEE PLANS FOR SIZES AND ADDITIONAL INFORMATION.
- WALL BACKING MATERIALS SUITABLE FOR WALL MOUNTED EQUIPMENT SHALL BE PROVIDED BY CONTRACTOR. WALL BACKING CAN BE 3/4" PLYWOOD BETWEEN STUDS OR #20 GA. SHEET METAL MOUNTED ON FACE STUDS.
- DUNNAGE AND/OR PLATFORMS FOR ROOF MOUNTED EQUIPMENT SHALL BE PROVIDED BY CONTRACTOR.
- WALL, FLOOR AND/OR FLOOR SLEEVES SHALL BE PROVIDED BY CONTRACTOR.
- KITCHEN EQUIPMENT CONTRACTOR SHALL UNDER NO CONDITIONS SET IN PLACE OR INSTALL ANY PIECE OF EQUIPMENT PRIOR TO TILE FLOORS BEING ACID WASHED AND RINSED.
- CONTRACTOR SHALL PROVIDE WALL OPENINGS TO ACCOMMODATE ITEMS OF PASS-THRU AND CONVEYOR EQUIPMENT. OPENING OR RECESS AS REQUIRED FOR VENTILATION CONTROL AND/OR WASH DOWN PANELS, DISPOSER AND/OR PULPER CONTROL PANELS.
- EXHAUST SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH EXHAUST DESIGNER SHOP DRAWINGS.
- 16 G.A. STAINLESS STEEL CORNER GUARD SHALL BE PROVIDED AND INSTALLED BY KITCHEN EQUIPMENT CONTRACTOR AS PER PLANS AND DETAILS.
- KITCHEN EQUIPMENT CONTRACTOR AND PULPER/FITTER CONTRACTOR TO COORDINATE SIZE AND LOCATION OF GAS SHUT OFF VALVE. GAS SHUT OFF VALVE TO BE LOCATED ABOVE CEILING.
- SPRINKLER CONTRACTOR TO PROVIDE SPRINKLERS IN WALK-IN COOLER/FREEZER. FREEZER HEADS SHALL BE FOAM SEALED. PROVIDE A STAINLESS STEEL ESCUTCHEON PLATE WHERE EXPOSED - BY SPRINKLER CONTRACTOR.

EQUIPMENT SCHEDULE

ITEM NO	QTY	EQUIPMENT CATEGORY	HOT WATER SIZE (IN)	HOT WATER AFF. (IN)	COLD WATER SIZE (IN)	COLD WATER AFF. (IN)	INDIR. DRAIN SIZE (IN)	DIRECT DRAIN SIZE (IN)	GAS SIZE (IN)	GAS AFF. (IN)	MBTUH	HVAC EXHAUST CFM	PLUMBING REMARKS	HP	KW	AMPS	DIRECT PLUG	VOLTS	PHASE ELECTRICAL AFF. (IN)	ELEC RT. MARKS	EQUIPMENT REMARKS
1	5	SHELVING, WIRE 42" x 21"D																			
2	1	REFRIGERATOR, 3 DOOR REACH-IN												1/2		7.6	X	115	1	1B	
3	1	FREEZER, 1 DOOR REACH-IN												3/4		10.1	X	120	1	1B	
4	—	BLANK																			
5	2	SP RACKS, S/S																			w/ CASTORS
6	—	BLANK																			
7	1	24"x 24" UTILITY SINK	1/2	33	1/2	33		1-1/2													
8	1	MIXER												1/2		8.0	X	120	1		
9	—	BLANK																			
10	1	84" WIDE x 24"D S/S WORK TABLE																			S/S UNDERSHELVS
11	1	60" WIDE x 30"D S/S WORK TABLE																			S/S UNDERSHELVS
12	1	96" WIDE x 30"D S/S WORK TABLE																			S/S UNDERSHELVS
13	—	BLANK																			
14	2	OVEN, CONVECTION, ELECTRIC, HOODLESS			1/4									3/4	21.5	103	X	208	1	1B	w/ CASTORS
15	—	BLANK																			
16	1	EXISTING SINK, HAND w/ SOAP DISPENSER																			
17	1	EXISTING 120" x 12"D SHELF																			
18	1	EXISTING SINK, SCULLERY, 3-COMPARTMENT											DRAIN TO FLOOR SINK								w/ DRAIN BOARDS
19	1	SHELVING, WIRE 84" x 24"D																			
20	1	DISPLAY, REFRIGERATED 48" x 30"D																			
21	1	DISPLAY, DRY 48" x 30"D																			
22	1	P.O.S.													2.0	8.4	X	120	1	1B	VERIFY w/ SUPPLIER
23	1	PRINTER														1.8	X	120	1	1B	
24	1	SHELVING, DISPLAY 72" x 12"D																			
25	—	BLANK																			
26	1	55" REFRIGERATOR, MERCHANDISER												3/4	0.6	7.9	X	115	1	1B	
27	—	BLANK																			
28	1	60" COFFEE SERVICE BAR																			
29	—	BLANK																			
30	1	EXISTING SINK, MOP																			w/ NSF RACK FOR MOP, BROOM, & CHEMICAL STORAGE
31	1	EXISTING WATER HEATER																			
32	1	EXIST GREASE INTERCEPTOR																			

- NOTE:
- VOID
 - ALL UNDER SHELVES ON WORK TABLES AND EQUIPMENT STANDS SHALL BE STAINLESS STEEL
 - THE FOLLOWING MISC ITEMS SHALL BE PROVIDED:
 - COVERED GARBAGE CANS WITH LIDS FOR THE RESTROOM
 - SANITARY BOX IN EXIST. UNISEX RESTROOM
 - OPEN FRONT TOILET SEATS WITH NO LIDS FOR RESTROOMS
 - MILLWORK / CABINERY IN THE RESTROOMS, BEVERAGE STATION, AND BAR SHALL HAVE STAINLESS STEEL OR SOLID SURFACE COUNTER TOPS (NO PLASTIC LAMINATE), AND 6" STAINLESS STEEL LEGS OR OPEN-TO-THE FLOOR DESIGN (TO KICKS THAT CAN BE EASILY REMOVED WITH THE USE OF A TOOL).



ARCHITECTURAL RESOURCES
 W. Alex Teipel - Architect
 Robert M. Akers - Architect
 427 West State St. Geneva, Illinois 60134
 (630) 232-1774
 wateipel3@gmail.com / robert-akers@shglohal.net

I hereby certify that these plans were prepared under my supervision and to the best of my knowledge they comply with the building ordinances, zoning ordinances and all other applicable codes and ordinances including the Illinois Accessibility Code and ANSI A117.1-1986.
 Expires: 11/30/16

FOOD SERVICE EQUIPMENT SCHEDULE & NOTES
 Tenant Build-out for
BLACKBERRY BAKERY
 320 W. Main Street
 St. Charles, Illinois 60174

Date 01/19/16
 Scale AS NOTED
 Drawn R.M.A.
 Job 16-2482
 Sheet
FS.2
 Of 2 Sheets

**DOWNTOWN BUSINESS ECONOMIC INCENTIVE PROGRAM
AWARD APPLICATION FORM**

1. Applicant Information:

Name: Susan & Katie Kritzberg

Home Address: 1217 Game Farm Road, Yorkville, IL 60560

Phone/email: (630) 669-1430 / twowildseeds@gmail.com

Name of Business: Two Wild Seeds Baking Company, LLC

Business Address: 320 W. Main St., St. Charles, IL 60174

Federal Tax ID Number: 46-2808544

(All awards are subject to Federal and State taxes, and are reported to the Internal Revenue Service on Form 1099 (W-9). You are required to provide your taxpayer ID number or social security number as part of the Downtown Business Economic Incentive Award Agreement. Property owners and tenants should consult their tax advisor for tax liability information.)

2. Property Information:

Address: 320 W. Main St., St. Charles, IL 60174

Property Identification Number: 09-27-361-006
(parcel #)

3. Architect/Design Professional:

Name: Architectural Resources (Alex Teipel)

Address: 427 W. State St., Geneva, IL 60134

Phone/email: (630) 232-1774 / wateipel.3@gmail.com

4. Contractor(s):

Name: Mike Titone

Address: P.O. Box 147, ^{South} Elgin, IL 60177

Phone/email: (847) 347-4260 / titonigroup@att.net

5. Scope of Project (Include the following with your submittal):

- A. Building Plans accurately drawn to scale, showing proposed improvements.
- B. Cost estimates for materials and labor. (There should be two cost estimates submitted, one for the estimated costs of all improvements to the building and one that highlights only the costs for eligible improvements).

6. Statement of Understanding:

- A. I agree to comply with the guidelines and procedures of the St. Charles Downtown Business Economic Incentive Program.
- C. I understand that I must submit detailed cost documentation, copies of bids, contracts, invoices, receipts and contractors' final waivers of lien upon completion of the approved improvements before any reimbursement payment will be authorized. "Before" and "After" pictures of the project must be submitted before funds will be released.
- D. I understand that work done before a Downtown Incentive Award Agreement is approved by staff or the City Council is not eligible for an award.
- E. I understand that Downtown Business Economic Incentive reimbursement awards are subject to taxation and that the City is required to report the amount and the recipient of said awards to the Internal Revenue Service.

Signature of Applicant:

Susan Keitzberg / Peter Kauf

If the applicant is someone other than the owner of the property, the owner(s) must complete the following certificate:

I/We certify that I/we own the property identified on this application and that I/we hereby authorize the applicant to apply for a reimbursement award under the City of St. Charles Downtown Business Economic Incentive Program and undertake the approved improvements.

Signature of Owner(s):

J. W. McBray

Date:

2/11/16

City of St. Charles

Downtown Business Economic Incentive Program

1. Program Purpose

The purpose of the St. Charles Downtown Business Economic Incentive Program is to encourage the rehabilitation and investment of properties located in downtown St. Charles. This program will meet this purpose by providing the following benefits:

1. The enhancement of the overall economic vitality and character of downtown St. Charles by attracting tenants to fill vacant commercial spaces.
2. Assist the expansion and/or relocation of existing businesses within downtown St. Charles.
3. Promoting the continued success of downtown St. Charles through the improvement and repair of historic and older buildings that require maintenance and building/fire code updates.
4. The protection of the general welfare by enhancing property and vitality of downtown St. Charles.

2. Program Guidelines:

All Downtown Business Economic Incentive Program awards will match applicant expenditures on a 50/50 basis for eligible improvements. There shall be a funding amount of \$10,000 available for individual businesses. Multiple businesses located in multi-tenant buildings shall all be eligible for individual awards. All businesses must meet the following criteria:

- The property must be located in the Downtown Area (See Attached Map for program limits).
- The business must be considered one of the following uses as defined in Section 17.030.020 of Title 17 the Zoning Ordinance:
 - Art Studio
 - Cultural Facility
 - Indoor Recreation & Amusement
 - Live Entertainment
 - Hotel/Motel
 - Outdoor Sales, Permanent
 - Personal Services
 - Coffee Shop or Tea Room
 - Restaurant
 - Retail Sales
 - Tavern/Bar
 - Theater
- The leasable space must be located on the first floor/street level of the eligible building.
- Primary point of sale for merchandise/services in the store must be the location of the physical business.
- Businesses are eligible for an additional \$15,000 provided the property/business meets one of the following criteria: (Total grant amount for any business shall not exceed \$25,000)
 - The additional awards are used to update building code or fire code deficiencies required by change of use such as but not limited to: ADA accessibility improvements, fire sprinkler installation, fire alarms installation, repair, or updates, accessibility ramps/elevators.

- The building or leasable space has been vacant for more than 6 months.
- The proposed business is located in the Downtown Retail Overlay District.
- Large retail spaces that need to be demised to make leasing the space more feasible.
- Extraordinary costs based on a unique physical condition or alterations of the building can be considered on a case by case basis.

4. Approval of a Downtown Business Economic Incentive Program Award Procedure:

The Community & Economic Development Department shall accept and process all applications for Downtown Business Economic Incentive Program awards.

- All applicants must request a “Chapter 34” review by the Building & Code Enforcement Division and Fire Department to determine any necessary code upgrades required due to change in use or life safety issues.
- Awards of **\$10,000** or less are approved administratively by Director of Community & Economic Development Department or designee.
- Awards in **excess of \$10,000 up to \$25,000** are required to receive City Council approval.

5. Eligible Improvements

The following improvements shall be considered eligible to receive the Downtown Business Economic Incentive Award:

- Accessibility improvements for handicapped persons.
- Creation of new exterior doors for access into new leasable commercial spaces.
- Demising walls for the purposes of creating individual leasable commercial spaces.
- Energy conservation improvements.
- Electrical work, including service upgrades.
- Fire alarm systems.
- Fire sprinkler system installation or upgrade, including any needed water service improvements.
- Heating, ventilation and air conditioning.
- Lighting.
- Plumbing.
- Restoration of historic interior architectural features, including ceilings, light fixtures, floors and architectural detailing.
- Utility service upgrades, including water and sewer.
- Improvements not specifically listed as eligible or ineligible are subject to review on a case by case basis.
- Façade improvements (*only if the Façade Improvement Program has committed all budgeted funding for the current fiscal year.*)

6. Ineligible Improvements

The following items are **NOT** eligible for awards under the Downtown Business Economic Incentive Award Program:

- Acquisition of land or buildings.
- Product inventory.

- Interior signage.
- Lighting fixtures.
- Hard surface materials for non-retail exterior space (parking lots, sidewalks, etc.).
- Display window enhancements (hanging grid system, lighting, display shelf, etc.).
- Media marketing and advertising.
- Ongoing business expenses such as rent, payroll, consulting work, moving expenses, etc.
- Day-to-day operational costs (e.g. utilities, taxes, maintenance, refuse).
- Exterminator services.
- Landscaping (see the City of St. Charles' Corridor Improvement Grant Program).
- Paint, tile, or other design elements.
- Furniture, cabinetry, carpets, office equipment, or similar interior finishes.
- Building permit fees and related costs.
- Sweat equity.
- Signs.

7. Commencement of Work:

Only after the Downtown Business Economic Incentive Program Agreement is approved by the City, can work commence. **DO NOT START BEFORE -- YOU WILL NOT BE REIMBURSED FOR WORK DONE PRIOR TO CITY APPROVAL OF THE DOWNTOWN ECONOMIC INCENTIVE PROGRAM AGREEMENT.**

8. Completion of Work:

All improvements must be completed within 270 calendar days of Downtown Business Economic Incentive Program Agreement approval, unless otherwise authorized by City staff for a maximum of a one (270) day extension. If the work is not complete by the end of the extension the City's remaining obligation to reimburse the owner or tenant for the project terminates.

9. Reimbursement Payments:

Upon completion of the work, the owner or tenant must submit copies of all design invoices, contractor's statements, other invoices, proof of payment and notarized final lien waivers to the Director of Community & Economic Development, as evidence that the owner or tenant has paid the architect and contractor(s). You should use the attached forms for the contractor's statement and final lien waivers. Payment will be authorized upon completion of all work items as originally approved and receipt of all of the required documents.

The Applicant will only be reimbursed for the amount of the award once all approved work has been completed and a Certificate of Occupancy is issued by the Building & Code Enforcement Division.

The Director of Community & Economic Development may authorize reimbursement to be made in two payments, if all of the following conditions are present: 1) The first partial payment may be made upon completion of work representing at least forty percent (40%) of the amount specified in the Downtown Business Economic Incentive Program Agreement; 2) The architect's invoices, contractor's statements, invoices, notarized final lien waivers and proof of payment for the completed work have been submitted; 3) The remaining work is expected to be delayed for thirty

days or more following completion of the initial work due to weather, availability of materials, or other circumstances beyond the control of the owner or tenant.

In the case that the award covers multiple leasable spaces in one building, partial award funding can be disbursed as each individual leasable space is issued a Certificate of Occupancy. The amount of the partial disbursement shall be based on the proportion of square footage.

All Improvements shall be installed in accordance with the approved plan. Minor revisions as may be approved by a representative of the City Staff due to field conditions not known at the time of design, and similar circumstances beyond the Applicant's control. **THIS IS A REIMBURSEMENT PROGRAM -- YOU MUST PAY YOUR ARCHITECT, CONTRACTORS AND SUPPLIERS BEFORE YOU RECEIVE PAYMENT FROM THE CITY.**

Reimbursement awards are subject to Federal and State taxes, and are reported to the Internal Revenue Service on Form 1099. You are required to provide your taxpayer ID number or social security number as part of the Downtown Business Economic Incentive Program Agreement. Property owners and tenants should consult their tax advisor for tax liability information.

10. Maintenance Period:

The property owner and tenant shall be responsible for maintaining the improvements without alteration for five (5) years. A restrictive covenant limiting alterations may be required by the City Council at the time of approval of the Downtown Business Economic Incentive Program Agreement. A waiver from this requirement may be awarded by the City Council following a recommendation the by Director of Community & Economic Development, upon submittal of evidence of hardship or unusual circumstances.



City of St. Charles, Illinois

Two East Main Street St. Charles, IL 60174-1984
Phone: 630-377-4400 Fax: 630-377-4440 - www.stcharlesil.gov

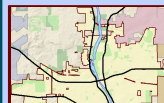
Precision GIS

RAYMOND REGINA Mayor
MARK KOENEN City Administrator



Legend

- Downtown Business Economic Incentive Program Boundary —
- Downtown Overlay District —



Data Source:
City of St. Charles, Illinois
Kane County, Illinois
DuPage County, Illinois
Projection: Transverse Mercator
Coordinate System: Illinois State Plane East
North American Datum 1983
Printed on: January 20, 2015 08:49 AM



0 322 643 Feet

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ST. CHARLES
SINCE 1834

AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve the Adoption of Revised Building and Fire Codes
Presenter:	Bob Vann, Building & Code Enforcement Division Manager Joe Schelstreet, Fire Chief Rita Tungare, Director Community & Economic Development

Please check appropriate box:

	Government Operations		Government Services
X	Planning & Development 03/14/2016		City Council
	Public Hearing		

Estimated Cost:		Budgeted:	YES	X	NO	
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If NO, please explain how item will be funded:

Executive Summary:

The Building Division and Fire Department staff upon recommendation from the Building Board of Review is proposing the updated editions of the Building and Fire Codes. The City currently has the 2009 International I-Codes under adoption and staff is recommending that the 2015 edition of the International Building Code, International Residential Code, and the International Fire Code both with local amendments be considered for adoption.

Since November, City staff has held public meetings with the Building Board of Review to evaluate the codes and local amendments. On February 23rd, 2016 the Building Board of Review unanimously recommended the approval of the proposed codes and local amendments.

Attachments: (please list)

Memorandum, Code Amendments, 2015 ICC Model Code Summary of important changes

Recommendation / Suggested Action (briefly explain):

Staff recommends approval from the Committee of proposed IBC, IRC, and IFC codes and local amendments and requests these be forwarded to City Council for final consideration.

<i>For office use only:</i>	<i>Agenda Item Number: 3e</i>
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**Community & Economic Development
Building & Code Enforcement Division**

Phone: (630) 377-4406

Fax: (630) 443-4638



Memo

Date: February 29, 2016

To: Chairman Todd Bancroft and
Aldermen of the Planning and Development Committee

From: Bob Vann, Building & Code Enforcement Division Manager

CC: Joe Schelstreet, Fire Chief and Rita Tungare, Director of Community
& Economic Development

RE: Adoption of 2015 Int'l Residential, Int'l Building and Int'l Fire Codes
with Local Amendments

The City of St. Charles first adopted the newer Building Code Edition format of the International I-Codes with the 2003 Edition. The City currently has the 2009 International I-Codes under adoption. The International family of codes has a -3-year edition cycle. The 3-year cycle provides the opportunity to establish provisions consistent with the scope of a building code that adequately protects public health, safety, and welfare; provisions that do not unnecessarily increase construction costs; provisions that do not restrict the use of new materials, products, or method of construction; and provisions that do not give preferential treatment to types of materials, products, or methods of construction.

Every code upgrade will have cost implications. Attached are highlights of important changes to the 2015 Building and Fire Codes and their cost implications as researched from four national associations. The Building and Fire personnel along with the Building Board of Review have reviewed the City's local amendments and have been able to reduce the number of these special provisions by the following percentage:

- Int'l Building Code 43% Reduction
- Int'l Residential Code 21% Reduction
- Int'l Fire Code 28% Reduction

Two-2 regulations in the Residential Code that have been highlighted during the review are the requirements of residential sprinklers (1&2 Family) and the requirement of upgrading smoke alarms when permits are issued for alterations, repairs, and additions.

The Residential Code requires that all newly constructed 1&2 family dwellings have a residential fire sprinkler system installed. In December of 2015, staff recommended that the moratorium to install these systems be extended until December 31, 2016. This will provide staff and Council further time to review and consider the impact for this requirement.

Since the Edition of the 2000 International Codes projects that are issued, permits for alterations, repairs, and additions are required to install smoke alarms in locations as required for new dwellings. These are:

- In each sleeping room
- Outside each sleeping room
- On each level of the dwelling

They are required to be interconnected were all alarms sound upon activation of one alarm. The interconnection of alarms may be installed by wiring the alarm systems together or using wireless alarm systems.

The Code provides exceptions to the requirement. The following permitted projects would not require the smoke alarm upgrade:

- Work involving exterior surfaces/projects
 - o Roofing/siding
 - o Door, addition or replacement of windows
 - o Decks/porches
 - o Sheds/fences
- Installation, alteration or repairs of plumbing or mechanical systems
 - o Furnace/air conditioners
 - o Hot water heater
 - o Water softeners
 - o Plumbing repairs

Furthermore, interconnection of smoke alarms in existing areas shall not be required where the alterations or repair do not result in removal of interior wall or ceiling finishes, unless there is an attic, crawl space or basement available for access to make the connection.

Staff Recommendation: The Building Division and Fire Department with the recommendation from the Building Board of Review is recommending to keep in place the moratorium on residential sprinkler systems and to maintain the base code requirement of smoke alarms.



BACKGROUND | OCTOBER 2014

2015 ICC Model Codes Summary of Important Changes

The 2015 International Code Council (ICC) model building codes were completed in June 2014 and are now available for adoption at the state and local level. This document summarizes the significant changes made between the 2012 and 2015 codes that affect apartments (Residential R-2) and commercial occupancies. For the first time, the National Multifamily Housing Council (NMHC), National Apartment Association (NAA), Building Owners and Managers Association (BOMA) and National Association of Home Builders (NAHB) encourage state and local jurisdictions to consider adopting the 2015 I-Codes when updating their state or local codes. Two exceptions to this are noted in this document.

Importantly, this summary does not include all the changes, and therefore developers and designers need to consult the codes for other changes that may impact a specific design. For each change, the tables included indicate whether the change is likely to result in higher or lower costs (or whether the impact is unknown).

National Multifamily Housing Council
1850 M Street, NW, Suite 540
Washington, DC 20036

202 974 2300 Phone | www.nmhc.org

Overview

This Backgrounder reviews the key changes between the 2012 and 2015 ICC Codes that affect apartments (Residential R-2) and commercial properties. The good news for designers and developers is that for the first time ever, NMHC/NAA, BOMA and NAHB encourage state and local jurisdictions to consider adopting the 2015 I-Codes when updating their state or local codes. There are two exceptions to this, however. The first is the International Green Construction Code (IgCC) which has not been published. The second is the International Energy Conservation Code (IECC), which we suggest be amended in some key areas. Those recommendations are included in a separate document titled *Recommended Amendments to the 2015 International Energy Conservation Code (IECC)*.

Although the codes can largely be adopted as is, they do contain meaningful changes. Therefore, designers and developers need to be aware of several changes in the 2015 codes that will impact apartments and commercial properties. Many of the changes benefit apartment and commercial construction, and taken as a whole these positive changes more than offset the changes that might increase construction costs.

The most beneficial changes, by far, are the ones dealing with podium/pedestal buildings. Most notably, the 2015 codes remove the restriction limiting the podium/pedestal portion of the building to one story. As a result, the podium/pedestal portion can go to any height without imposing a limit on the number of stories allowed in the property. The restrictions on occupancies allowed in the podium/pedestal portion of the building have also been revised. In the 2015 codes, the only restriction remaining is that this portion of the building cannot contain a Group H (hazard) type occupancy.

Other beneficial changes include: a rewrite of “Chapter 5, Heights and Area” that makes it more user friendly; new requirements for donut-type construction that establish provisions for separating the garage from the apartment building; permitted uses of NFPA 13R sprinkler systems; and use of cross-laminated and fire-retardant-treated lumber.

The ICC codes included in this summary:

- 2015 International Building Code (IBC)
- 2015 International Fire Code (IFC)
- 2015 International Existing Building Code (IEBC)
- 2015 International Plumbing Code (IPC)
- 2015 International Energy Conservation Code (IECC)
Note: A separate document is available that identifies recommended changes to the IECC during the local adoption process.
- 2015 International Mechanical Code (IMC)
- 2015 International Fuel Gas Code (IFGC)

The changes are organized by the cost impact they will have. Changes noted as “Decrease” could have a major impact on how a structure is built and, in several cases, they clarify unclear or misinterpreted code requirements. Major cost-saving changes include:

1. Removal of the height restriction on the pedestal/podium portion of buildings.
2. Removal of the limitation on occupancies permitted in the pedestal/podium portion of the building with the exception of not permitting Type H occupancies.
3. Redefine how private garages can be used in multifamily buildings.
4. Determination of building heights, area and setbacks.
5. Separation of the apartment building from garages in donut type construction.

6. Application of the NFPA 13R sprinkler system.
7. Design and use of assembly occupancies on building roofs.

Changes noted as “Increase” are important and will impact specific requirements within the building. Major changes in this category include:

1. Requirements for a secondary sprinkler water supply in Seismic Design Category C, D, E, or F.
2. New requirements for opening protective glazing.
3. Use of limited area sprinkler systems.
4. Requirements for alarm systems in college and university buildings.

The changes noted as having cost implication of “None” or “Unknown” need special attention because they will impact the building design and could have an impact on specific provisions in the code. Major changes here include:

1. Revision to requirements on dampers protecting ceiling membrane.
2. Use of cross-laminated and fire-resistant lumber.
3. Location of smoke alarms near kitchens and bathrooms.
4. Use of smoke detection systems as alternative to providing smoke alarms.
5. Measurement of exit and exit access configuration.

One additional note: Special awareness should be given to any attempts to adopt Appendix L – Fire Fighter Air Replenishment Systems and Appendix M – High-Rise Retro Active Installation of Automatic Sprinkler Systems. Appendix items are not part of the code unless they are specifically included during the code adoption process.

Designers and builders need to consult the 2015 ICC codes that are not listed for changes that may be of concern to specific projects.

Important Changes to the 2015 IBC			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IBC 202 Definition of "Private Garage," 406.3.1 "Classification," 406.3.2 "Clear Height"	Major Change	Decrease	Private garages are no longer limited to a maximum of 3,000 sq. ft. in a building. Multiple private garages, each a maximum of 1,000 sq. ft., each separated by one-hour fire barriers or horizontal assemblies are now permitted based on their U occupancy classification. Also, a minimum of 7' clear height will be required in private garages.
IBC 202 Definition of "Fire Retardant Treated Wood"	Major Change	Decrease	Revised definition to permit other treatment methods by other than the pressure process. See also IBC Sections 2303.2.2 and 2303.2.3 for further explanation.
IBC 503 through 506 Building Heights and Area Requirements	Makes Code More User Friendly	Decrease	2012 IBC Table 503 was replaced with the 2015 IBC Tables 504.3, 504.4 and 506.2 with NO changes in the technical application, making the code more user-friendly. The maximum allowable height and number of stories can now be determined directly from Tables 504.3 and 504.4. The maximum allowable sprinkler area increase can also now be determined directly from Table 506.2.
IBC 510.2 "Horizontal Building Separation" (i.e., Podium/Pedestal Structures)	Major Change	Decrease	2012 IBC Section 510.2(2) that limited the Type IA portion of the podium/pedestal building below the horizontal separation to a maximum of one story above grade plane has been deleted in the 2015 IBC allowing the podium portion of the building to be of any height without any restriction on the number of floors. Also, 2015 IBC Section 510.2(5) permits any occupancy, except Group H, below the horizontal separation. (See also the table entry under IBC Section 903.3.1.2 for further information on podium design)
IBC 705.3 Exception #2 "Buildings on the Same Lot"	New Provision	Decrease	Permits a parking garage of Construction Type I or IIA to abut a Group R-2 building with 1½-hour-protected openings (fire doors) in the abutting exterior wall of the garage and no required opening protective(s) in the abutting wall of a sprinklered R-2 building. Previous editions of the Code did not permit any openings in these abutting exterior walls that are at a "0" fire separation distance apart and required a fire wall design between such buildings to be permitted to have openings between the abutting buildings.

Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IBC 705.6 "Exterior Wall-Structural Stability"	Major Change	Decrease	Exterior fire-rated walls that are braced by floor or roof assemblies that have a lesser fire resistance rating are now permitted. Previous editions of the IBC Code required Construction Type III buildings with two-hour fire-rated exterior walls to have floors that support the two-hour fire-rated exterior walls to be upgraded to the two-hour fire rating. This is a major cost since apartment buildings built of Construction Type III under the legacy codes only required one-hour floor and roof assemblies to support the two-hour fire-rated exterior walls.
IBC 707.5 Exception 2 "Fire Barriers-Continuity"	New: Clarification	Decrease	Clarifies that the walls of an interior exit stairway do not need to extend through the attic space to the underside of the roof deck if the ceiling of the stairway terminates with a fire-rated top enclosure complying with Section 713.12.
IBC 714.4.2 Exception 7 "Membrane Penetration"	Revision	Decrease	This exception was new in the 2012 IBC (Section 714.4.1.2 Exception #7) and allowed for a practical application of the code in circumstances where wood-framed walls extend up to and attach directly to the underside of joist/trusses floor and roof fire-rated assemblies. It was further modified to permit the wood framed walls to be sheathed solely with Type X gypsum wallboard in lieu of being a fire resistance rated wall assembly.
IBC 717.1.1 "Ducts and Air Transfer Openings"	New Provision	Decrease	Duct will be allowed to leave a fire-rated shaft enclosure, transition horizontally, and then enter another fire-rated shaft if the duct penetrations on each side of the shafts are protected with fire dampers. Note that this is not permitted for clothes dryer exhaust ducts or any other ducts that the I Codes require to be continuous and uninterrupted.
IBC 903.2.1.6 "Assembly Occupancies on Roof"	New Provision	Decrease	Code now addresses how to deal with assembly occupancies on the roof of a building. When the occupant load > 100 for Group A-2 (i.e., restaurant), or > 300 for other Group A (i.e., meeting rooms, swimming pools) all floors to, and including, level of exit discharge are required to be sprinklered per NFPA 13 or NFPA 13R, as applicable. Since all new Group R occupancies are already required to be sprinklered, this new requirement is a good clarification of the Code for such common assembly occupancies that are to be located on the roofs of new apartment projects. Note that there is an exception to this sprinkler requirement for open parking garages of Construction Type I or Type II.

Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IBC 903.2.11.3 "Automatic Sprinkler Systems – Where Required- Buildings 55' or More in Height"	Revision	Decrease	This revision clarified that the 55' is measured from the lowest level of fire department vehicle access to the finished floor level of the highest floor with an occupant load of ≥ 30 . Exceptions are provided for open parking garages and F-2 occupancies.
903.3.1.1.2 Exception "NFPA 13 Exempt Bathroom Sprinklers"	New Provision	Decrease	The 2015 IBC references the 2013 NFPA 13. In the 2013 NFPA 13 Section 8.15.8.1 the small bathroom (≤ 55 sq. ft.) sprinkler exception was deleted for apartment dwelling units. Since the NFPA 13 Committee deleted this reasonable, long-standing, sprinkler exception out of its Code, the NFPA 101 Committee, as well as the ICC Membership, decided to place it back into the 2015 NFPA 101 and 2015 IBC. The NFPA 13 Committee is in the process of attempting to place the bathroom exception for dwelling units back into its 2015 edition of NFPA 13.
903.3.1.2 "Installation Requirements NFPA 13R Sprinkler Systems"	Clarification	Decrease	Section was revised to correlate with the scope of the 2013 NFPA 13R Standard. This should help prevent any misapplication of the sprinkler standards that apply to "...Group R occupancies up to and including four stories in height in buildings not exceeding 60 feet in height above grade plane...". The new second paragraph in this section clarifies that the number of stories of Group R occupancies above a podium or pedestal designed structure (see Section 510.4) is measured from the fire-rated horizontal separation that creates separate buildings. By default, this new second paragraph under the NFPA 13R requirements is also applicable to the number of stories of Group R occupancies above a podium structure when the entire structure is sprinklered per NFPA 13. For example, an R-2 occupancy of Construction Type IIIA, sprinklered per NFPA 13, can be five stories above the Type IA pedestal below as long as the overall building height from grade plane does not exceed 85 feet (IBC Table 504.3)
IBC 1011.12 Exception "Stairway to Roof"	New Exception	Decrease	For stairways in buildings \geq four stories above grade plane that do not have an occupied roof or elevator equipment on the roof, access to the roof does not need to be by one of the stairways in the building. It can be provided by an alternating tread device, a ship's ladder or a permanent ladder.
IBC 1011.16 "Ladders"	New Provision	Decrease	New section with specific requirements for permanent ladders. Such ladders cannot serve as a part of the means of egress from occupied spaces within a building.

Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IBC 1016.2(1) "Egress through Intervening Spaces," 3006.4 Means of Egress"	New Provision	Decrease	Exit access is permitted through an enclosed elevator lobby that leads to at least one of the required exits. Exit access to not less than one of the other required exits shall be provided without travel through the enclosed elevator lobby.
IBC 1023.3.1 Exception 2 "Interior Exit Stairway Extension"	New Provision	Decrease	An exit stairway does not require a door at the stairway opening into an exit passageway if the exit passageway has no other openings into it from the building.
IBC 1107.4 Exceptions 3 and 4 "Accessible Route"	New Provision	Decrease	Exceptions added to exempt, in certain cases, accessible stories and mezzanines in buildings with Group R-2 units or dormitories if accessibility is provided to other facilities.
Previous 2012 IBC Section 3004 "Hoistway Venting"	Deleted	Decrease	The hoistway venting requirements have been deleted from the 2015 IBC since they were antiquated and wasted building energy. Only Section 3004.3.1, "Plumbing and Mechanical Systems," was retained, and it was relocated to Section 3002.9
IBC 101.4.7 "Existing Buildings," Previous 2012 IBC Chapter 34 "Existing Buildings"	Deleted 2012 IBC Chapter 34	None	The requirements (Chapter 34) for existing structures have been removed from the 2015 IBC. All existing construction requirements are now in the 2015 International Existing Building Code (IEBC).
IBC 104.11 "Alternative Materials, Design, and Methods of Construction and Equipment"	Revision	None	Last sentence was added that requires the code official to provide in writing the reasons why the alternative was not approved if he/she rejects the application for an alternative design under this section of the Code.
903.3.1.2.2 "Open-Ended Corridors"	New Provision – Correlation	None	This new section was added to the sprinkler requirements just to clarify that when applying the open-ended corridor (i.e., open breezeway) sprinkler requirements of Section 1027.6 Exception 3.1 to a building sprinklered in accordance with NFPA 13R, it is the intent of the IBC Code to also require the open-ended corridors and its associated exterior stairs to be sprinklered when using Exception 3 of Section 1027.6.
903.3.5 "Water Supplies"	Revision	None	New last sentence in section was added to clarify that the fire flow test for the design of the sprinkler system needs to be adjusted for seasonal and daily pressure fluctuations.
IBC 907.2.11.4 "Smoke Alarms Near Bathrooms"	New Provision	None	Smoke alarms are to be located a minimum of three feet from the bathroom door when the bathroom contains a bathtub or shower.

Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IBC 907.2.11.3 and 907.2.11.4 "Single and Multiple-Station Smoke Alarms Near Cooking Appliances"	New Provision - Correlation	None	These new sections were added to the alarm requirements to correlate with the requirements in NFPA 72 on the placement of smoke alarms. When ionization smoke alarms are to be installed they shall be placed a minimum of 20 feet from cooking devices, or a minimum of 10 feet if they have an alarm-silencing switch. If photoelectric smoke alarms are to be installed they shall be placed a minimum of six feet from cooking devices.
IBC Table 1006.2.1 "Spaces with One Exit or Exit Access Doorway"	New Provision	None	Combined 2012 IBC Tables 1014.3 and 1015.1 into a single table for user-friendliness. Note that Table 1006.2.1 covers the maximum common path of egress travel distance to that point where the occupants have separate access to two exits (or are already outside the building), whereas Table 1017.2 covers the total exit access travel distance to an exit.
IBC 1006.2.1, Exception 1, Table 1006.3.2(1) and 1006.3.2 Single Exits in Buildings	Revised	None	It is permitted for multiple dwelling units, in groups of four units or less per floor, to have access to a single means of egress. The change also reflects the revised travel distance for single exit design allowing a maximum common path of egress travel distance of 125 feet.
IBC Section 915 "Carbon Monoxide (CO) Detection"	Relocated to its Own Section in Chapter 9, Reformatted and Revised	None	The CO alarm requirements that were new in the 2012 IBC and located in Section 908.7 have been relocated and extensively revised and clarified in the 2015 IBC. A CO alarm is to be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in R-2 occupancies that have fuel-burning appliances/fireplaces and/or attached private garages. Buildings with open parking garages complying with Section 406.5 or enclosed parking garages complying with Section 406.6 are not considered private garages.
IBC 1010.1.7, Exception #2 "Thresholds at Doorways"	New Provision	None	In Type B dwelling units that permit a four -inch elevation change at the door, the threshold height on the exterior side of the door shall not exceed 4¾" in height above the exterior deck, patio or balcony for sliding doors and not more than 4½" for other doors.
IBC 1210.2.3 "Shower Compartments"	Revised	None	The height of the required nonabsorbent surface has been raised from 70 inches to 72 inches.

Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IBC 1405.3 "Vapor Retarders"	Revised	None	Requirements for vapor retarders have been modified. In Climate Zones 1 and 2, Class I and II vapor retarders are not permitted on the interior side of frame walls. In Climate Zones 3 and 4, Class I vapor retarders are not permitted on the interior of frame walls. Class III vapor retarders are required in specific locations.
IBC 3104.5 Connections of Pedestrian Walkway to Buildings	Makes Code More User Friendly	None	Revised, reformatted section with no intended changes to the existing requirements.
IBC Section 3006 "Elevator Lobbies and Hoistway Opening Protection"	New Section with Relocated Requirements	None	The elevator lobby requirements that were located in 2012 IBC Section 713.14.1 were reformatted and relocated into newly created Sections 3006.2 and 3006.3 in the 2015 IBC.
IBC 403.3.3 "Sprinkler Secondary Water Supply"	Relocated	None	Sprinkler systems in high-rise buildings in Seismic Design Category C, D, E or F are required to have a secondary water supply.
IBC 202 Definition of "Corridor Damper," 717.3.2.4 "Corridor Damper Rating," 717.3.3.5 "Corridor Damper Actuation," 717.5.4.1 Exception #1 "Where Required-Corridors"	New Provision	Unknown	New design option protecting the ceiling membrane's HVAC penetrations for a fire-rated exit access corridor where the ceiling of the corridor is constructed using a fire-rated corridor wall assembly placed horizontally.
IBC 602.4 Cross-Laminated Timber Use in Construction Type IV	New Provision	Unknown	Revisions allow the use of fire-retardant-treated lumber, cross-laminated timber and glued-laminated plank in specific applications.
IBC 703.2.4 Fire-Resistance Ratings and Fire Tests: Supplemental Features"	New Provision	Unknown	When a listed fire resistance assembly is modified, sufficient data shall be made available to the code official to show that the required fire resistance rating is not reduced.
IBC 705.2 "Projections," 705.2.3 "Combustible Projections"	Major Change	Unknown	Table 705.2, "Minimum Distance of Projections," was modified and simplified and now requires an increase in the separation required between the leading edge of a building's projection and the property line (or fire separation distance line). Section 705.2.3 was simplified and requires added protection where a combustible projection is within 5' of a property line (or FSD).
907.2.11.7 "Smoke Detection System"	New Provision	Unknown	Clarifies that an acceptable alternative to providing single and multiple-station smoke alarms is to use smoke detectors, listed per UL 268, that are part of the building's fire alarm system.

Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
913.2.2 "Circuits Supplying Fire Pumps"	New Provision	Unknown	New section requires that the power supply cables shall be listed and installed in accordance with UL 2196.
IBC 1019 Exception 3, "Exit Access Stairways and Ramps"	New Provision	Unknown	New provisions for exit stairways and ramps require enclosed stairways and ramps with exception for interior of dwelling units.
IBC 308.3 "Group I-1," 308.3.1 "Condition 1, 308.3.2 "Condition 2," 404.5 Exception "Smoke Control," 420.4. "Smoke Barriers in Group I-1, Condition 2," 420.5 "Automatic Sprinkler System," 420.6 "Fire Alarm Systems and Smoke Alarms," 709.5 Exceptions "Openings," 903.2.6 Exception 1 "Group I," 903.3.2(3) "Quick-response and Residential Sprinklers," 904.13 "Domestic Cooking Systems in Group I-2 Condition 1," 907.2.6 Group I Manual Fire Alarm," 907.2.11.2 "Smoke Alarms," 907.2.11.5 "Interconnection of Smoke Alarms," 907.2.13 Exception 6 "High-Rise Buildings," 907.5.2.2 Exception "Emergency Voice/Alarm Communications," 907.5.2.3.2 "Group I-1 Visible Alarms," 909.5.3 Exception 3 and 909.5.3.1 "Smoke Barrier Opening Protection," 915.1.1 "CO Detection," 1010.1.9.6 "Controlled Egress Doors in Group I-1 and I-2," 1010.1.9.8 "Sensor Release of Electrically Locked Egress Doors," 1010.1.9.9 "Electromagnetically Locked Egress Doors," 1020.1 Exception 2 "Corridor Construction," Table 1020.1 "Corridor Fire-Resistance Rating," 3006.2(2) "Hoistway Opening Protection Required"	Major Changes for I-1 Occupancies	Unknown	<p>There have been a number of requests for conversions of existing R-2 projects into assisted living facilities as the baby boomers are now in their 60s. To provide some general guidance to firms that may be considering either the construction of new projects or conversion of existing buildings to such occupancies, the two rows on I-1 and R-4 occupancies are provided showing the revised requirements in the 2015 IBC for these occupancies.</p> <p>Also be aware that there may be modifications to the requirements in the 2015 IBC that relate to an existing building's conversion to another occupancy. See the requirements in the 2015 International Existing Building Code (IEBC), Chapter 10, "Change of Occupancy".</p> <p>Assisted living facilities (≥ 17 persons) are now divided into two conditions with different requirements throughout the Code. I-1 Condition 1 only applies to occupants who are capable of responding to an emergency without any assistance to leave the building. I-1 Condition 2 applies to occupants who will require limited verbal or physical assistance to respond to an emergency and safely egress from the building.</p>

Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
Chapter 10 "Means of Egress"	Major Revisions, Relocations and Clarifications	Unknown	2012 IBC Sections 1015 and 1021 requirements were relocated and revised into the general provisions of Sections 1006 and 1007. All the section numbers that were in the 2012 IBC have been changed in the 2015 IBC because of the extensive reorganization and revisions during this code cycle. Users of the Code are cautioned to do an extensive review of Chapter 10 before designing a project under this new edition of the Code.
IBC 1007 "Exit and Exit Access Doorway Configuration"	New Provision	Unknown	New section with specific requirements on how to measure the separation distance between exits, exit access doorways/stairways and ramps.
IBC 1015.7 Exception "Roof Access"	New Exception	Unknown	Exception eliminates the guards required for roof access where the roof hatch opening is located within 10' of the roof edge or the open side is located > 30" above the floor, roof or grade above, where permanent fall arrest/restraint anchorage connector devices complying with ANSI/ASSE Z 359.1 are provided.
IBC 2406.4.7 "Safety Glazing Adjacent to the Bottom Stairway Landing"	Revision	Unknown	Requires safety glazing if glazing is located < 60" above the bottom of a stair, or within a 60" horizontal arc if < 180 degrees from the bottom tread nosing.
IBC 111.1 "Use and Occupancy"	Revision	Increase	A change in a building use, or portion thereof, with no change in its occupancy classification will now require a new Certificate of Occupancy.
IBC 716.5.8.4 "Opening Protectives—Safety Glazing"	Revision	Increase	Previous editions of the Code only required safety glazing for "fire protection-rated" glazing in fire door assemblies, now it will be required also for "fire resistance-rated" glazing in fire door assemblies. Note that Section 716.5.8.1.1 provides the locations where "fire resistance-rated" glazing in fire door assemblies can be used, and Section 716.5.8.1.2 provides the requirements where "fire protection-rated" glazing in fire door assemblies can be used.
903.3.8 "Limited Area Sprinkler Systems"	Major Revisions	Increase	In existing, non-sprinklered apartment buildings, limited area sprinkler systems were mostly provided in basements where storage rooms, boiler rooms and similar spaces were located. Revisions reduced the number of sprinklers from 20 to six that can be used on a "limited area sprinkler system" in any single fire area. In addition, it now requires hydraulic calculations to be done to show that these sprinklers that are piped off the domestic water supply can control a fire.

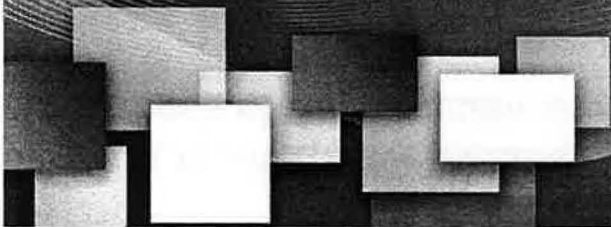
Important Changes to the 2015 IBC (cont'd)			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IBC 907.2.9.3 "Alarm Systems - Group R-2 College and University Buildings"	Clarification	Increase	In the previous edition of the IBC, the alarm requirements of this section appeared to apply to buildings that are owned by a college or university. For the 2015 IBC it was clarified that this requirement was for Group R-2 occupancies that are "...operated by a college or university for student or staff housing..." Requires an automatic smoke detection system in the common corridors/spaces, laundry, mechanical equipment and storage rooms. It also requires the smoke alarms in the dwelling/sleeping units to be interconnected with the fire alarm system
IBC 1015.8 "Window Opening Guard Protection"	New Provision	Increase	Window openings more than 72" above grade that are less than 36" above the floor must be protected with guards or fixed openings that will not allow the passage of a four-inch-diameter sphere.
IBC 1107.6.2.1 "Live/Work Units"	New Provision	Increase	The nonresidential portion of a live/work unit is required to be accessible. The entire live/work unit is required to be accessible if the residential portion of the live/work unit is required to be a Type B dwelling unit.
IBC 1107.7.2 Multistory Type B Dwelling Units	New Provision	Increase	The primary entry level in a multistory Type B dwelling unit that is served by an elevator must have a living area, kitchen and toilet facility.
IBC 1110.2.2, 1110.2.3 and 1110.4.13, Exception 3. "Accessible Recreational Facilities"	New Provision	Increase	New requirement that apartment properties comply with ANSI A117.1 recreational facility requirements. Accessible means of entry into a swimming pool, spa or similar water feature is not required in R-2, R-3 and R-4 occupancies.
IBC 1203.2 "Attic Ventilation"	New Provision	Increase	The ventilation requirements for attics have been upgraded to reflect the new code requirements for energy conservation. Specific requirements have been added for enclosed attics and a new section (IBC 1203.3) has been added for unvented attic and unvented enclosed rated assemblies.
IBC Chapter 17 "Special Inspections and Tests"	New Provision and Revised	Increase	New requirements for special testing have been added detailing specific requirements that must be complied with when special inspection is required. Requirements for inspection of specific materials have been modified or added.

Important Changes to the 2015 IFC			
<i>Section(s) and Issue(s)</i>	<i>Type of Change</i>	<i>Cost Implication</i>	<i>Comment</i>
IFC 1103.3.2 Elevator Emergency Operation	New Provision	Decrease	New exception to requirements for updating elevators to latest standard which include installation of protective doors, sprinkler protection, and for freight elevators sprinkler protection provided at least one elevator complies with A 17.3.
IFC 1104.22(4) "Means of Egress for Existing Buildings—Exterior Stairway Protection"	Deletion of 2012 IFC Section 1104.21(4.1)	Decrease	Remainder of Section 1104.21 was moved to 1104.22. The requirement to retroactively sprinkler existing, open-ended corridor (i.e., open breezeway) buildings was deleted.
IFC 1103.7.6 Exception 4 "Manual Fire Alarm System in Existing Group R-2 Occupancies"	New Exception	Decrease	Exception 4 eliminates the requirement for a manual fire alarm system in an existing R-2 occupancy where all four requirements are met: <ol style="list-style-type: none"> 1. Building is \leq three stories in height above grade plane. 2. Dwelling units are not served by interior corridors. 3. Dwelling units are separated from each other by 3/4 hour fire barriers. 4. Dwelling units are provided with smoke alarms per Section 907.2.11.
IFC Appendix B B105 "Fire Flow Requirements for Buildings"	Revisions	Unknown	If a jurisdiction adopts the IFC and makes Appendix B mandatory in the adopting ordinance, then fire flows for townhouses and other buildings can be reduced based on the construction type and sprinkler system installed (NFPA 13, NFPA 13R or NFPA 13D).
IFC Appendix C "Fire Hydrant Locations and Distribution"	Revisions	Unknown	If a jurisdiction adopts the IFC and makes Appendix C mandatory in the adopting ordinance, then the revisions to Sections C103.2 Exception and C104.1 provide increased spacing for existing fire hydrants and credit for existing fire hydrants on adjacent properties that can be used. Also new footnotes "f" and "g" permit fire hydrant spacing increases based on the type of sprinkler system installed in the building.
IFC Appendix L "Fire Fighter Air Replenishment Systems (FARS)"	New Provision	Increase	If a jurisdiction adopts the IFC and makes Appendix L mandatory in the adopting ordinance, then buildings required by the local adopting ordinance to have FARS would be required to comply with Appendix L's design, installation, testing and maintenance requirements.
IFC Appendix M "High-Rise – Retroactive Automatic Sprinkler Requirement"	New Provision	Increase	If a jurisdiction adopts the IFC and makes Appendix M mandatory in the adopting ordinance, then all existing high-rise buildings in that jurisdiction will be required to be sprinklered.



2015 IRC Update

Based on the International Residential
Code® (IRC®)



Chapter 1

Scope and Administration

5

R101.2, R202 Scope—Accessory Structures

2015	2012
R101.2, R202	R101.2, R202

- **Change Type:** Modification
 - The maximum height for accessory structures has been increased from two to three stories above grade plane. Technical requirements have been removed from the definition, and accessory structures are now permitted to be unlimited in area.



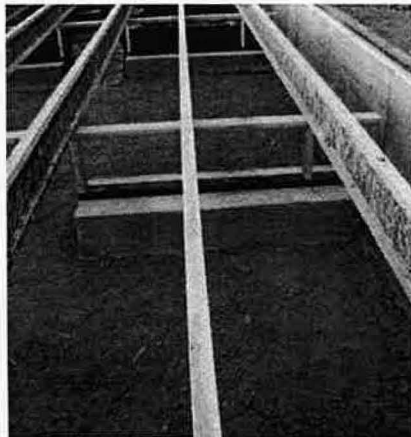
2015 IRC Update

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R104.11 Alternative Materials, Design, and Methods of Construction and Equipment

2015	2012
R104.11	R104.11

- **Change Type:** Addition
 - When proposed alternatives are not approved, the reason for the disapproval must be stated in writing by the building official.



2015 IRC Update

7

R105.3.1.1 Existing Buildings in Flood Hazard Areas

2015	2012
R105.3.1.1	R105.3.1.1 R112.2.1

- **Change Type:** Modification
 - Determination of substantial improvement for existing buildings in flood hazard areas is the responsibility of the building official. The related provisions are now consolidated in Section R105.3.1.1.



2015 IRC Update

8

R106.1.4 Information for Construction in Flood Hazard Areas

2015 2012
R106.1.4 R106.1.4

- **Change Type: Modification**
 - Construction documents for dwellings in Coastal A Zones shall include the elevation of the bottom of the lowest horizontal structural member.



Scope and Administration

1. What is the maximum number of square feet allowed for an accessory structure?

Unlimited Area or Square Feet



Chapter 3

Building Planning

Table R301.2(1) Climatic and Geographic Design Criteria

- **Change Type: Modification**

2015 2012
Table R301.2(1) Table R301.2(1)

TABLE R301.2(1) Climatic and Geographic Design Criteria

Ground Snow Load	Wind Design			Seismic Design Category ^l
	Speed ^d (Mph)	Topographic effects ^k	Special wind region ^l	

(Portions of table and footnotes not shown remain unchanged)

- l. In accordance with Figure R301.2(4)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- m. In accordance with Section R301.2.1.2.1, the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise, the jurisdiction shall indicate "NO" in this part of the table.



R301.2, R202 Wind Design Criteria

2015	2012
R301.2, R202	R301.2, R202

- Change Type: Modification
 - Ultimate design wind speed values replace basic wind speed values for 3-sec gust wind speeds in Section R301.2.1. A wind speed conversion table has been added for conversion from ultimate design V_{ult} to nominal design wind speeds, V_{asd} .

TABLE R301.2.1.3 Wind Speed Conversions^a

V_{ult}	110	115	120	130	140	150	160	170	180	190	200
V_{asd}	85	89	93	101	108	116	124	132	139	147	155

For SI: 1 mile per hour = 0.447 m/s.

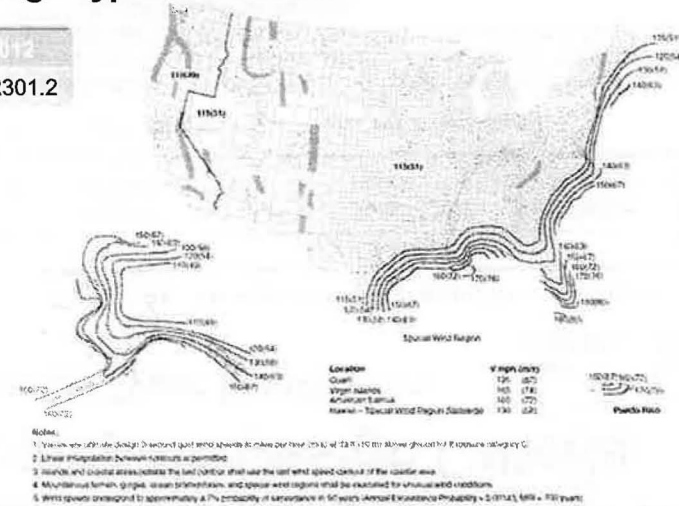
a. Linear interpolation is permitted



R301.2 Wind Speed Maps

- Change Type: Modification

2015	2012
R301.2	R301.2

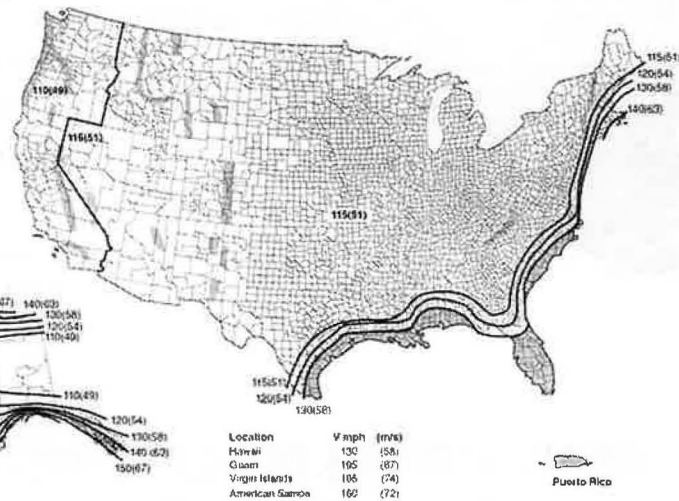


R301.2 Wind Speed Maps

- Change Type: Modification

2015	2012
R301.2	R301.2

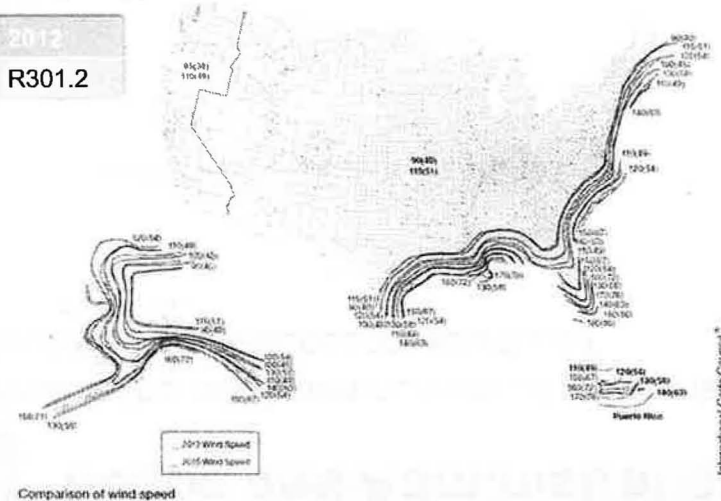
Wind Design Required
Special Wind Regions



R301.2 Wind Speed Maps

- Change Type: Modification

2015	2012
R301.2	R301.2



R301.2.1.1.1 Sunrooms

Change Type: Addition

- The 2015 IRC requires sunrooms to comply with AAMA/NPEA/NSA 2100-12. The standard contains requirements for habitable and nonhabitable sunrooms.

2015	2012
R301.2.1.1.1	-



R301.2.1.4 Wind Exposure Category

Change Type: Modification

2015	2012
R301.2.1.4	R301.2.1.4

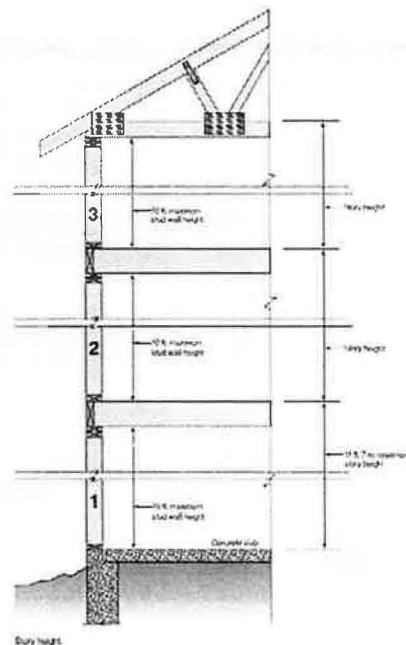
- Wind Exposure Category A is a legacy category that no longer exists in the IBC and ASCE 7, which is the basis for determination of wind exposure categories.
 - In the 2015 IRC, Exposure Category A is deleted.
 - In the 2012 IRC, Wind Exposure Category D applied to regions adjacent to open water in non-hurricane-prone regions. Wind Exposure Category D now applies to open water, mud and salt flats, and unbroken ice fields. Exposure Category D also applies in hurricane-prone regions to residences on or near the ocean shore.

R301.3 Story Height

2015	2012
R301.3	R301.3

Change Type: Modification

- Story height of wood and steel wall framing, insulated concrete, and SIP walls may not exceed 11 feet, 7 inches. Masonry wall height is limited to 13 feet, 7 inches.



R302.1 Exterior Walls

Change Type: Modification

2015	2012
R302.1	R302.1

TABLE R302.1(1) Exterior Walls

Exterior Wall Element	Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	Fire-resistance rated	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure from both sides
	Not fire-resistance rated	0 hours
Projections	Not allowed	N/A
	Fire-resistance rated	1 hour on the underside ^{a,b}
	Not fire-resistance rated	0 hours
Openings in walls	Not allowed	N/A
	25% maximum of wall area	0 hours
	Unlimited	0 hours
Penetrations	All	Comply with Section R302.4
		None required

For SI, 1 foot = 304.8 mm.

N/A = Not Applicable.

a. Roof slope fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fireblocking is provided from the wall top plate to the underside of the roof sheathing.

b. Roof slope fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided cable vent openings are not installed.

R302.1 Exterior Walls

2015 2012
R302.1 R302.1

Change Type: Modification

TABLE R302.1(2) Exterior Walls—Dwellings with Fire Sprinklers

Exterior Wall Element	Fire-resistance rating	Minimum Fire-Resistance Rating	Minimum Fire-Separation Distance
Walls	Fire-resistance rated	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure from the outside	0 feet
	Not fire-resistance rated	0 hours	3 feet ^a
Projections	Not allowed	N/A	< 2 feet ^b
	Fire-resistance rated	1 hour on the underside ^c	2 feet ^b
	Not fire-resistance rated	0 hours	3 feet
Openings in walls	Not allowed	N/A	< 3 feet
	Unlimited	0 hours	3 feet ^b
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet ^b

Fire SI: 3 feet = 301.6 mm

N/A = Not Applicable

^a For residential subdivisions where all dwellings are equipped throughout with an automatic sprinkler system installed in accordance with Section 2204, the fire separation distance for non-rated exterior walls and rated projections shall be permitted to be reduced to zero feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard that is 6 feet or more in width on the opposite side of the property line.

^b Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fire blocking is provided from the wall top plate to the underside of the roof sheathing.

^c Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided eave vent openings are not installed.



R302.1 Exterior Walls

2015 2012
R302.1 R302.1

Change Type: Modification

TABLE 3-2 Fire Resistance of Roof Overhang Projections

Condition	Minimum Fire Separation Distance			
	5 feet	3 feet	2 feet	0 feet
Dwellings Without Sprinkler System	0 hours	1 hour on underside	1 hour on underside	NP
Dwellings with Sprinkler System	0 hours	0 hours	1 hour on underside	NP
Fireblocking above Top Plate	0 hours	0 hours	0 hours	NP
Sprinklers in All Dwellings and 6-Foot Setback on Adjoining Lot	N/A	N/A	N/A	1 hour on underside
4-Inch Overhang on Detached Garage	N/A	N/A	N/A	1 hour on underside

NP = Not Permitted
N/A = Not Applicable



R302.2 Townhouse Separation

2015 2012
R302.2 R302.2

Change Type: Modification

- The provisions for separating townhouses with structurally independent fire-resistant-rated walls in accordance with Section R302.1 have been removed in favor of the common wall provisions of Section R302.2. Common walls separating townhouses must now be rated for 2 hours when an automatic fire sprinkler system is not installed in the townhouse dwelling units.

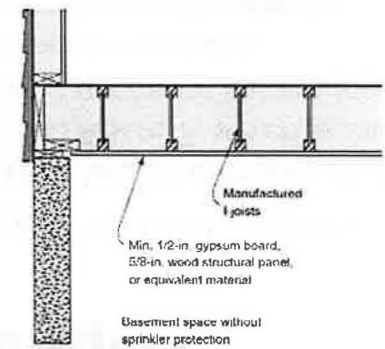


R302.13 Fire Protection of Floors

2015 2012
R302.13 R501.3

Change Type: Clarification

- The provisions for fire protection of floors have been relocated from Chapter 5 to the fire-resistant construction provisions of Section R302. New language clarifies that the code does not regulate penetrations or openings in the fire protection membrane.



Fire protection of floors

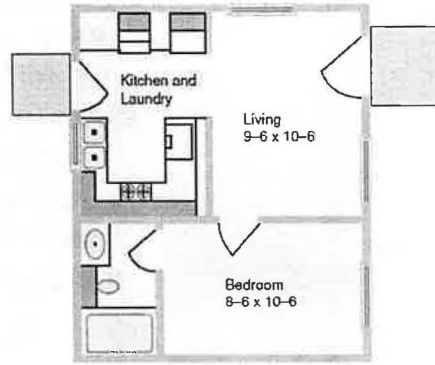


R304.1 Minimum Habitable Room Area

2015 2012
R304.1 R304.1

Change Type: Modification

- The requirement for one habitable room with a minimum floor area of 120 square feet has been removed from the code.

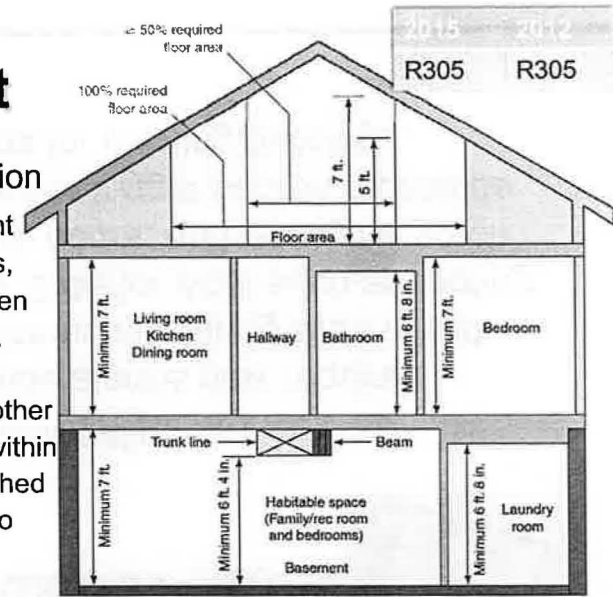


Small dwelling complying with minimum area requirements

R305 Ceiling Height

Change Type: Modification

- The minimum ceiling height for bathrooms, toilet rooms, and laundry rooms has been reduced to 6 feet 8 inches. The exception for allowing beams, girders, ducts, or other obstructions to project to within 6 feet, 4 inches of the finished floor has been expanded to include basements with habitable space.



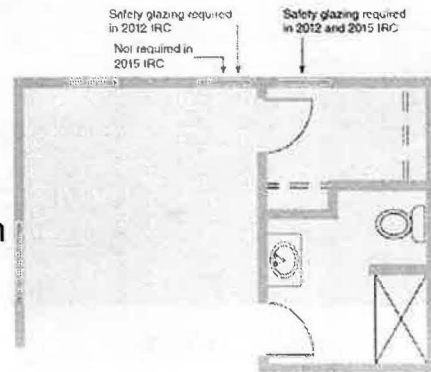
Ceiling height

R308.4.2 Glazing Adjacent to Doors

2015 2012
R308.4.2 R308.4.2

Change Type: Modification

- Glazing installed perpendicular to a door in a closed position and within 24 inches of the door only requires safety glazing if it is on the hinge side of an in-swinging door.



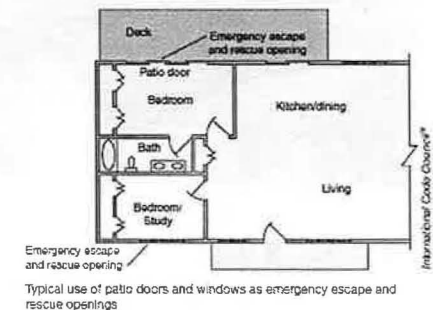
Glazing in windows adjacent and perpendicular to door

R310 Emergency Escape and Rescue Openings

2015 2012
R310 R310

Change Type: Clarification

- The emergency escape and rescue openings provisions have been reorganized. Separate provisions spell out the requirements for windows and doors used for emergency escape and rescue.



R311.1 Means of Egress

Change Type: Clarification

- The required egress door of a dwelling unit must open directly into a public way or to a yard or court that opens to a public way.



2015 2012
R311.1 R311.1

R311.8 Ramps

Change Type: Modification

- Ramps that do not serve the required egress door are now permitted to have a slope not greater than 1 unit vertical in 8 units horizontal.



2015 2012
R311.8 R311.8

R314 Smoke Alarms

Change Type: Modification

- Battery-operated smoke alarms are permitted for satisfying the smoke alarm power requirements when alterations, repairs, and additions occur. Household fire alarm systems no longer require monitoring by an approved supervising station. New provisions address smoke alarms installed near bathrooms and cooking appliances.

2015 2012
R314 R314



R315 Carbon Monoxide Alarms

Change Type: Modification

- Carbon monoxide alarms now require connection to the house wiring system with battery backup. Exterior work such as roofing, siding, windows, doors, and deck and porch additions no longer trigger carbon monoxide alarm provisions for existing buildings.



2015 2012
R315 R315

R322.1, R322.2 Flood Hazards

Change Type: Modification

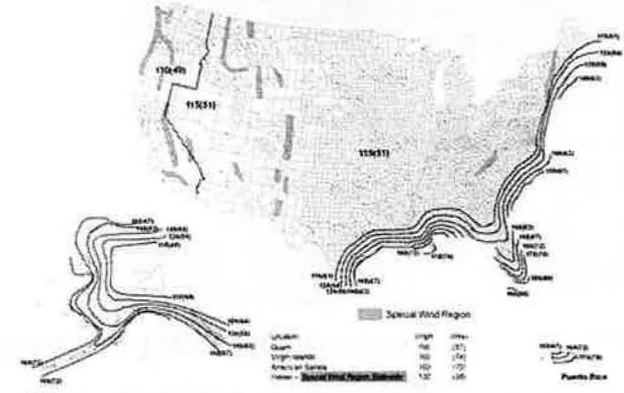
- This provision applies to existing buildings in flood hazard areas where 50 percent or more of the structure has damage and requires restoration. Minimum elevation allowed for dwellings in flood hazard areas is limited and the section defines a Coastal A zone.

2015	2012
R322.1, R322.2	R322.1, R322.2



Building Planning

2. What is the V_{ult} wind speed in your local area?



Depending upon the local area, most of country is now 115 mph. Check the map in Figure R301.2(4)A.



Building Planning

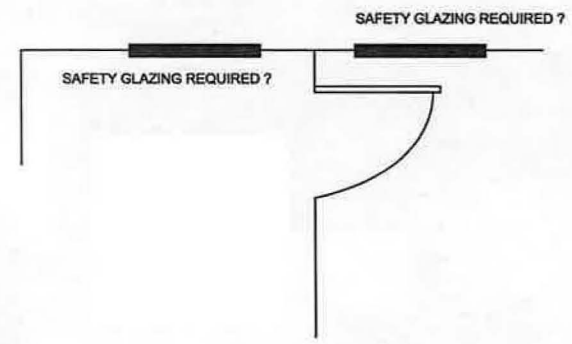
3. Is a common wall or structurally separated wall now considered the typical wall between townhouse units?

Common wall considered the typical townhome dividing wall in Section R302.2, Townhouses.



Building Planning

4. Does the glazing in the figure need to be safety glazing?



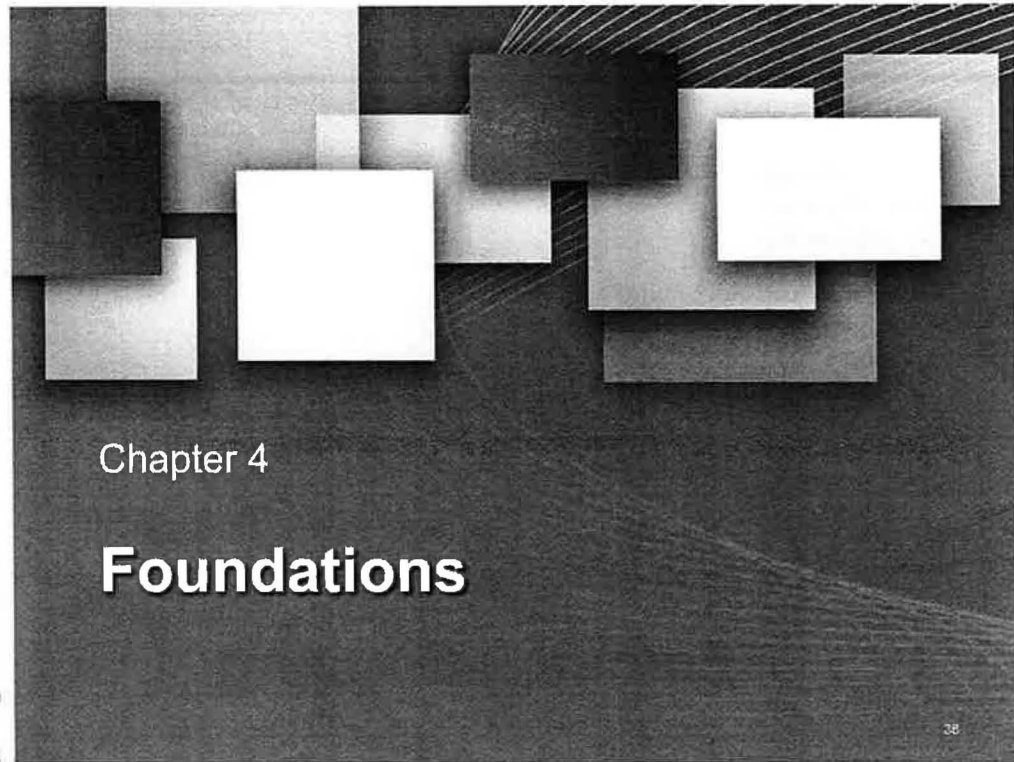
Glazing to the left does not require safety glazing. Glazing on the right, where potentially a person may be pushed through the window, requires safety glazing.



Building Planning

- For existing buildings with alterations requiring a permit, do smoke alarms have to be wired into the electrical system?

No, battery-powered smoke alarms may be added in some situations.



Chapter 4

Foundations

R403.1.1 Minimum Footing Size

- Change Type: Modification

R403.1.1 R403.1.1

TABLE R403.1(1) Minimum Width and Thickness for Concrete Footings for Light Frame Construction (inches)^{a,b}

Snow Load or Roof Live Load	Story and Type of Structure with Light Frame	Load-Bearing Value of Soil (psf)					
		1500	2000	2500	3000	3500	4000
20 psf	1 story - slab on grade	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - with crawl space	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - plus basement	18 x 6	14 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - slab on grade	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - with crawl space	16 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - plus basement	22 x 6	16 x 6	13 x 6	12 x 6	12 x 6	12 x 6
	3 story - slab on grade	14 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	3 story - with crawl space	19 x 6	14 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	3 story - plus basement	25 x 6	18 x 6	15 x 6	13 x 6	12 x 6	12 x 6
30 psf	1 story - slab on grade	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - with crawl space	13 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - plus basement	19 x 6	14 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - slab on grade	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - with crawl space	17 x 6	13 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - plus basement	23 x 6	17 x 6	14 x 6	12 x 6	12 x 6	12 x 6
	3 story - slab on grade	15 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	3 story - with crawl space	20 x 6	15 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	3 story - plus basement	26 x 6	20 x 6	16 x 6	13 x 6	12 x 6	12 x 6

(continues)

R403.1.1 Minimum Footing Size

- Change Type: Modification

R403.1.1 R403.1.1

TABLE R403.1(1) (Continued)

Snow Load or Roof Live Load	Story and Type of Structure with Light Frame	Load-Bearing Value of Soil (psf)					
		1500	2000	2500	3000	3500	4000
50 psf	1 story - slab on grade	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - with crawl space	16 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - plus basement	21 x 6	16 x 6	13 x 6	12 x 6	12 x 6	12 x 6
	2 story - slab on grade	14 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - with crawl space	19 x 6	14 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - plus basement	25 x 7	19 x 6	15 x 6	12 x 6	12 x 6	12 x 6
	3 story - slab on grade	17 x 6	13 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	3 story - with crawl space	23 x 6	17 x 6	13 x 6	12 x 6	12 x 6	12 x 6
	3 story - plus basement	29 x 0	21 x 6	17 x 6	14 x 6	12 x 6	12 x 6
70 psf	1 story - slab on grade	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - with crawl space	18 x 6	13 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	1 story - plus basement	24 x 7	18 x 6	14 x 6	12 x 6	12 x 6	12 x 6
	2 story - slab on grade	16 x 6	12 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	2 story - with crawl space	21 x 6	16 x 6	13 x 6	12 x 6	12 x 6	12 x 6
	2 story - plus basement	27 x 9	20 x 6	16 x 6	14 x 6	12 x 6	12 x 6
	3 story - slab on grade	19 x 6	14 x 6	12 x 6	12 x 6	12 x 6	12 x 6
	3 story - with crawl space	25 x 7	18 x 6	15 x 6	12 x 6	12 x 6	12 x 6
	3 story - plus basement	30 x 10	23 x 6	18 x 6	15 x 6	13 x 6	12 x 6

^a Interpolation allowed. Extrapolation is not allowed.

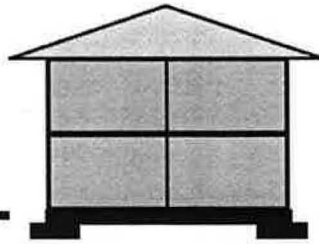
^b Based on 12-foot wide house with loadbearing center wall that carries half of the tributary area and floor framing. For every 2 feet of adjustment to the width of the house, add or subtract 2 inches of footing width and 1 inch of footing thickness (but not less than 6 inches thick).



Minimum Required Footing

- Two-story house with slab on grade foundation:
 - Light-frame construction
 - Soil-bearing strength 1500 psf
 - Roof Live Load 20 psf
 - 32ft. wide building with interior load-bearing wall

Minimum Footing Width		
2012	2015	Smaller footing width allowed
15×6	12×6	



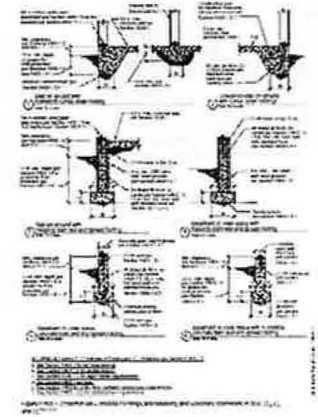
Slab on grade

R403.1.3 Footing and Stem Wall Reinforcing in Seismic Design Categories D₀, D₁, and D₂

Change Type: Clarification

- Updated figures and code provisions in Section R403.1.3 now clearly define minimum required reinforcement in footings and stem walls located in Seismic Design Categories (SDC) D₀, D₁, and D₂.

2015	2012
R403.1.3	R403.1.3

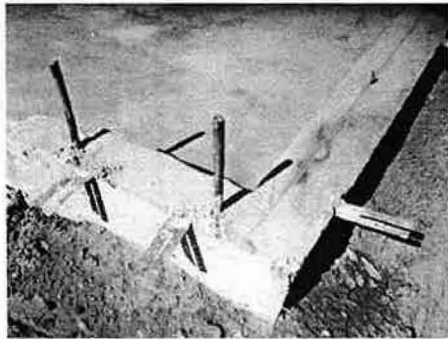


R403.1.6 Foundation Anchorage

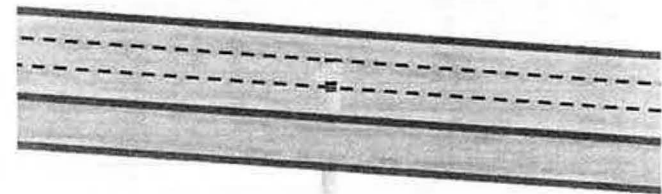
Change Type: Modification

- Anchor bolts are now required to be placed in the middle third of the sill plate. Approved anchors may be used instead of 1/2-inch anchor bolts.

2015	2012
R403.1.6	R403.1.6



6. Is the anchor bolt in the figure correctly located in the sill plate?



No, the anchor bolt is not within the middle third of the sill plate.

Chapter 5 Floors

Tables R502.3.1(1), R502.3.1(2) Floor Joist Spans for Common Lumber Species

Change Type: Modification

2015	2012
Tables R502.3.1(1), R502.3.1(2)	Tables R502.3.1(1), R502.3.1(2)

TABLE R502.3.1(1) Floor Joist Spans for Common Lumber Species (Residential sleeping areas).
Live load = 20 psf, L/A = 360'

Joist Spacing (inches)	Species and Grade	Dead Load = 10 psf				Dead Load = 20 psf			
		Maximum floor joist spans							
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
		(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)
	Douglas fir-larch SS	12-8	16-6	21-0	25-7	12-6	16-6	21-0	25-7
	Douglas fir-larch #1	12-0	15-10	20-3	24-8	12-0	15-7	19-0	22-0
	Douglas fir-larch #2	11-10	15-7	19-10	23-4	11-8	14-0	18-0	20-11
	Douglas fir-larch #3	9-11	12-7	16-6	17-10	8-11	11-3	14-8	16-0
	Hem-fir SS	11-10	15-7	19-10	24-2	11-10	15-7	19-10	24-2
	Hem-fir #1	11-7	15-3	19-5	23-7	11-7	15-3	18-8	21-0
	Hem-fir #2	11-0	14-6	18-6	22-6	11-0	14-4	17-6	20-4
	Hem-fir #3	9-8	12-4	16-0	17-5	8-8	11-0	13-6	15-7
	Southern pine SS	12-0	16-2	20-8	25-1	12-3	16-2	20-8	25-1
	Southern pine #1	11-10	15-7	19-10	24-2	11-10	15-7	18-7	22-0
	Southern pine #2	11-3	14-11	18-3	21-4	10-5	13-8	16-2	19-1
	Southern pine #3	9-2	11-6	14-0	16-6	8-2	10-3	12-8	14-0
	Spruce-pine-fir SS	11-7	15-3	19-3	23-7	11-7	15-3	19-5	23-7
	Spruce-pine-fir #1	11-3	14-11	18-0	23-0	11-3	14-7	17-0	20-7
	Spruce-pine-fir #2	11-3	14-11	18-0	23-0	11-3	14-7	17-0	20-7
	Spruce-pine-fir #3	9-8	12-4	16-0	17-5	8-4	11-0	13-5	15-7

For S-L 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

Note: Check sources for availability of lumber in lengths greater than 22 feet.

a. Dead load limits for residential in Seismic Design Category C and all structures in Seismic Design Categories D, E, and F shall be determined in accordance with Section R601.2.2.3.1.

FOR EXAMPLE



Floor Spans

#1 Bedroom

- Dead load 5 10 psf
- 2310 joists
- 160 o.c. spacing
- Southern Pine (SP) #2

Maximum Span Allowed	2012	2015
	18'-0"	15'-8"

- The SP #2 span length is significantly reduced from the 2012 IRC span length.
- Note: An SP #1 joist will span about the same length in the 2015 IRC Table R502.3.1(1) or R502.3.1(2) as the SP #2 did in the tables in the 2012 IRC.

R507.1, R507.4 Decking

Change Type: Modification

- The code sets the maximum allowable spacing for deck joists supporting the various types of common decking materials.

2015	2012
R507.1, R507.4	R507.1,

TABLE R507.4 Maximum joist spacing

Material type and nominal size	Maximum on-center joist spacing	
	Perpendicular to joist	Diagonal to joist*
1 7/8-inch thick wood	16 inches	12 inches
2-inch thick wood	24 inches	18 inches
Plastic composite	In accordance with Section R507.3	In accordance with Section R507.3

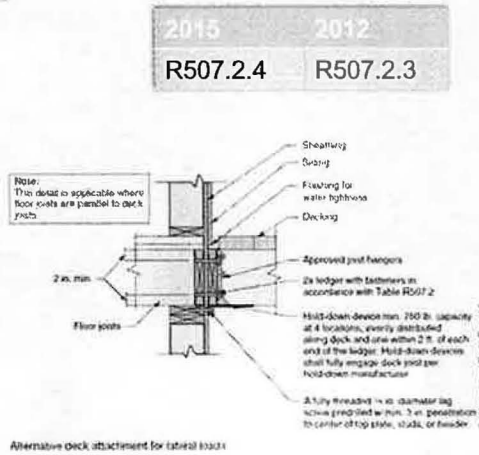
For S-L 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.01745 rad.

a. Maximum angle of 45 degrees from perpendicular for wood deck boards.

R507.2.4 Alternative Deck Lateral Load Connection

Change Type: Modification

- When the prescriptive deck lateral load connection that has appeared in the previous editions of the code is chosen as a design option, the code now requires the two hold-down devices to be within 2 feet of the ends of the deck. A new lateral load connection option prescribes four hold-downs installed below the deck structure.



Alternative deck attachment for lateral loads

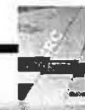
2015	2012
R507.2.4	R507.2.3

R507.5, R507.6, R507.7 Deck Joists and Beams

Change Type: Addition

- Provide prescriptive methods for joists and beams in deck construction. Section R507.5 describes requirements for deck joists, Section R507.6 lists requirements for deck beams, and Section R507.7 describes minimum bearing requirements for joists and beams.

2015	2012
R507.5, R507.6, R507.7	-



R507.5, R507.6, R507.7 Deck Joists and Beams

2015	2012
R507.5, R507.6, R507.7	-

TABLE R507.5 Deck Joist Spans for Common Lumber Species^a (ft.-in.)

Species ^a	Size	Spacing of Deck Joists With No Cantilever ^b (inches)			Spacing of Deck Joists With Cantilevers ^c (inches)		
		12	16	24	12	16	24
Southern pine	2 x 6	9-11	9-9	7-7	6-6	6-8	6-6
	2 x 8	12-1	11-10	9-8	10-1	10-1	9-8
	2 x 10	16-2	14-0	11-5	14-0	14-0	11-5
	2 x 12	18-0	16-0	13-6	18-0	16-0	13-6
Douglas fir-larch ^d , hem-fir ^e , spruce-pine-fir ^f	2 x 6	9-6	8-8	7-2	6-3	6-3	6-3
	2 x 8	12-0	11-1	9-1	9-5	9-5	9-1
	2 x 10	15-0	13-7	11-1	13-7	13-7	11-1
	2 x 12	18-0	15-0	12-10	18-0	15-9	12-10
Redwood, western cedars, southern pine ^g , red pine ^h	2 x 6	8-10	8-0	7-0	6-7	6-7	6-7
	2 x 8	11-0	10-7	8-0	8-6	8-6	8-6
	2 x 10	14-11	13-0	10-7	12-3	12-3	10-2
	2 x 12	17-5	15-1	12-4	16-5	15-1	12

^a For S.F. loads = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0478 kPa.
^b No 2 grade with wet service factor.
^c Ground snow load live load = 40 psf, dead load = 10 psf, L/A = 300.
^d Ground snow load live load = 40 psf, dead load = 10 psf, L/A = 300 at main span, L/A = 100 at cantilever with a 200-pound point load applied to end.
^e Includes limiting factor.
^f Northern species with wet service factor.
^g Cantilevered spans not exceeding the nominal depth of the joist are permitted.
^h Cantilevered spans not exceeding the nominal depth of the joist are permitted.

R507.5, R507.6, R507.7 continues

R507.5, R507.6, R507.7 Deck Joists and Beams

2015	2012
R507.5, R507.6, R507.7	-

TABLE R507.6 Deck Beam Span Lengths^a (ft.-in.)

Species ^a	Size ^b	Deck Joist Span Less Than or Equal to (feet)						
		8	9	10	12	14	16	18
Southern pine	2 x 6	5.11	5.11	5.8	6.10	6.5	6.7	6.9
	2 x 8	6.9	7.2	8.0	8.2	8.9	9.4	9.9
	2 x 10	10.4	10.9	11.9	12.4	13.4	14.4	15.0
	2 x 12	12.2	12.7	13.7	14.2	15.2	16.2	16.9
	3 x 6	8.2	7.5	8.0	8.1	8.8	9.3	9.9
	3 x 8	10.9	10.6	11.6	12.1	13.1	14.1	14.8
Douglas fir-larch ^d , hem-fir ^e , spruce-pine-fir ^f , redwood, western cedars, southern pine ^g , red pine ^h	2 x 6	11.0	11.2	12.0	12.2	13.0	13.2	13.6
	2 x 8	15.1	15.3	16.0	16.2	17.0	17.2	17.6
	2 x 10	21.0	21.2	22.0	22.2	23.0	23.2	23.6
	2 x 12	25.0	25.2	26.0	26.2	27.0	27.2	27.6
	3 x 6	14.0	14.2	15.0	15.2	16.0	16.2	16.6
	3 x 8	18.0	18.2	19.0	19.2	20.0	20.2	20.6
	3 x 10	22.0	22.2	23.0	23.2	24.0	24.2	24.6
	3 x 12	26.0	26.2	27.0	27.2	28.0	28.2	28.6
	4 x 6	16.5	16.7	17.5	17.7	18.5	18.7	19.1
	4 x 8	21.5	21.7	22.5	22.7	23.5	23.7	24.1

^a For S.F. loads = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0478 kPa.
^b Ground snow load live load = 40 psf, dead load = 10 psf, L/A = 300 at main span, L/A = 100 at cantilever with a 200-pound point load applied to end.
^c Includes limiting factor.
^d Northern species with wet service factor.
^e Includes limiting factor.
^f Northern species with wet service factor.
^g Includes limiting factor.
^h Northern species with wet service factor.



R507.8 Deck Posts

Change Type: Addition

- New Section R507.8 establishes minimum sizes of wood posts supporting wood decks and describes the requirements for connection of deck posts to the footing.

2015	2012
R507.8	-

TABLE R507.8 Deck Post Height^a

Deck Post Size	Maximum Height
4 × 4	8'
4 × 6	8'
6 × 6	14'

For SI: 1 foot = 304.8 mm.

a. Measured to the underside of the beam.



Floors

7. Are there prescriptive requirements within the IRC for the length of deck joists and beams?

- Yes, the IRC now contains span tables for the maximum length of deck joists and beams.

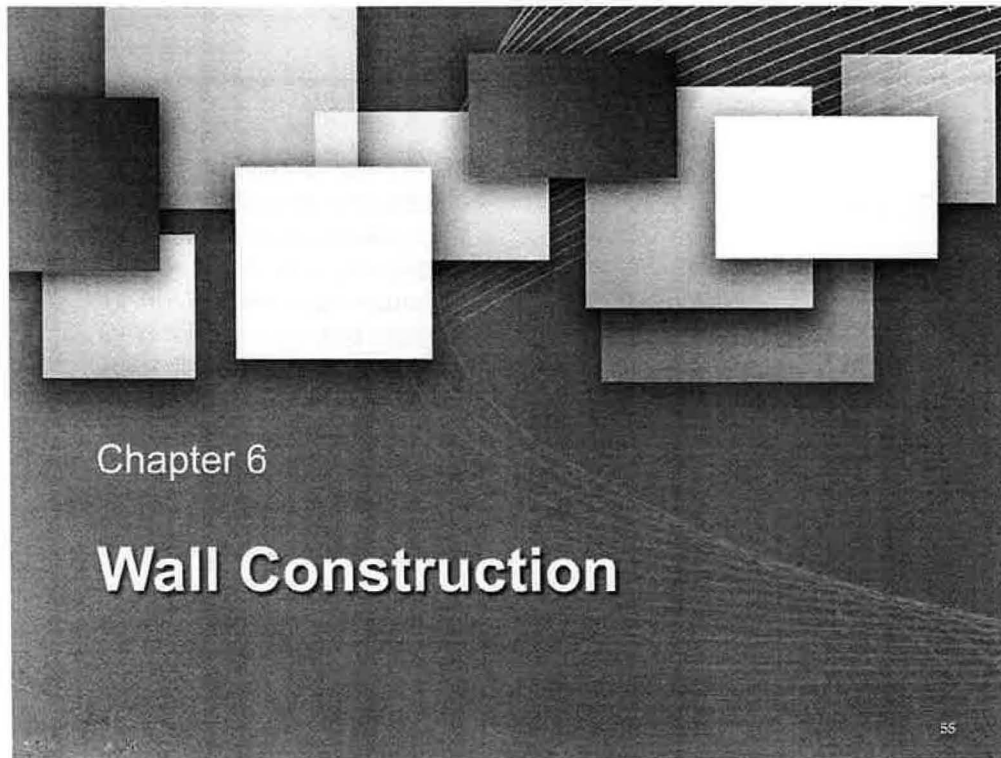


Table R602.3(1) Fastening Schedule—Roof Requirements

Change Type: Modification

2015	2012
Table R602.3(1)	Table R602.3(1)

TABLE R602.3(1) Fastening Schedule for Structural Members

Item	Description of Building Elements	Number and Type of Fastener ^{a,b,c}	Spacing and Location of Fasteners
1	Blocking between ceiling joists or rafters to top plate, toe nail	2-6d 4-8d box (2 1/2" x 0.113") or 2-6d common (2 1/2" x 0.131") or 2-10d box (2" x 0.128") or 2-2" x 0.131" nails	Toe nail
2	Ceiling joists to top plate, toe nail	3-6d 4-8d box (2 1/2" x 0.113") or 2-6d common (2 1/2" x 0.131") or 2-10d box (2" x 0.128") or 2-2" x 0.131" nails	Toe nail, toe nail
3	Ceiling joist not attached to parallel rafter, legs over partitions, face nail (See Sections R602.3.1, R602.3.2, Table R602.5.1(9))	3-10d 4-10d box (2" x 0.128") or 2-16d common (2 1/4" x 0.162") or 2-3" x 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (See Sections R602.3.1, R602.3.2, Table R602.5.1(9))	See Table R602.5.1(9)	Face nail
5	Collar tie to rafter, face nail or 1 1/2" x 20 gage ridge strap to rafter	4-10d 4-10d box (2" x 0.128") or 2-10d common (2" x 0.128") or 2-2" x 0.131" nails	Face nail, edge nail
6	Rafter or roof truss to plate, toe nail	3-16d box nails (2 1/2" x 0.135") or 3-10d common nails (2" x 0.148") or 4-10d box (2" x 0.128") or 4-2" x 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam, toe nail, face nail	4-16d box (2 1/2" x 0.135") or 2-10d common (2 1/2" x 0.148") or 4-10d box (2" x 0.128") or 4-2" x 0.131" nails	Toe nail
		3-16d box (2 1/2" x 0.135") 2-16d common (2 1/4" x 0.162") or 2-10d box (2" x 0.128") or 2-3" x 0.131" nails	End nail



Table R602.3(1) Fastening Schedule—Roof Requirements

- Change Type: Modification

2015 Table R602.3(1) 2012 Table R602.3(1)

Item	Description of Building Elements	Number and Type of Fastener ^{a,b,c}	Spacing of Fasteners and Location
Wall			
17	Top plates, laps at corners and intersections, face-nail	2-10d 3-10d box (3" x 0.128"); or 2-16d common (3/4" x 0.162"); or 3-3" x 0.131" nails	Face nail
18	1" brace to each stud and plate, face-nail	2-8d 3-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 2 staples 1 3/4"	Face nail
19	1" x 6" sheathing to each bearing, face-nail	2-8d 3-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 2 staples 1 3/4", 1" crown, 16 ga., 1 1/2" long	Face nail
20	1" x 8" and wider sheathing to each bearing, face-nail	2-8d 3-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3 staples 1 3/4", 1" crown, 16 ga., 1 3/4" long	Face nail
	Wider than 1" x 8"	2-8d 4-8d box (2 1/2" x 0.113"); or 3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 4 staples 1 3/4", 1" crown, 16 ga., 1 3/4" long	Face nail

(Fasteners not shown for beauty and clarity.)

Table R602.3(1) Fastening Schedule—Floor Requirements

- Change Type: Modification

2015 Table R602.3(1) 2012 Table R602.3(1)

TABLE R602.3(1) Fastening Schedule for Structural Members

Item	Description of Building Elements	Number and Type of Fastener ^{a,b,c}	Spacing of Fasteners and Location
Floor			
21	Joist to sill, top plate or girder	4-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 3-3" x 0.131" nails	Toe nail
22	Plate joint, head joint, or blocking to sill, or top plate (roof applications only)	6d box (2 1/2" x 0.113"); or 6d common (2 1/2" x 0.131"); or 10d box (3" x 0.128"); or 3-3" x 0.131" nails	5" max. toe nail 6" max. toe nail
23	1" x 6" subfloor or less to each joist	1-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 2 staples 1 3/4", 1" crown, 16 ga., 1 1/2" long	Face nail
24	2" subfloor to joist or girder, solid-and-bored-joist	2-8d 3-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 2 staples 1 3/4", 1" crown, 16 ga., 1 1/2" long	Diagonal face nail
25	2" planks (joist & beam - floor & roof)	2-10d 3-10d box (3" x 0.128"); or 2-8d common (2 1/2" x 0.131")	At each bearing, face nail
26	Joist or rim joist to joist	2-16d common (2 1/2" x 0.167"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails, or 4-3" x 1/4" common staples, 1/4" crown	End nail
27	Built-up girders and beams, 2-in. to 4-in. lumber joists	2-8d common (2 1/2" x 0.131")	Nail each layer as follows: 32" max. at top and bottom and staggered. Two nails at each end of each ply.
		10d box (3" x 0.128"); or 10d common (2 1/2" x 0.131") nails	24" max. for vertical spacing and bottom staggered on opposite side
		3-8d 3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails	Face nail at end of each ply at end of each ply
28	Ledge strip supporting joists or rafters	2-8d 4-8d box (2 1/2" x 0.113"); or 2-16d common (2 1/2" x 0.167"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails	At each joist or rafter, face nail
29	Blocking to joist	2-10d (3" x 0.128")	Each end, face nail

(Fasteners not shown for beauty and clarity.)

R602.3.1 Stud Size, Height, and Spacing

2016 R602.3.1 Table R602.3(1) 2012

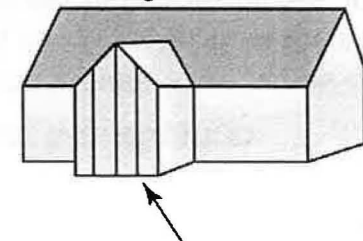
- Change Type: Modification

- Table R602.3.1 is deleted and the exception for walls greater than 10 feet tall is added to the text of Section R602.3.1. If studs in a tall wall meet Exception 2, they meet the requirements of the IRC and do not need engineering or use of an alternate standard.



Prescriptive Tall Walls

- 2 x 6 Continuous Studs Used in an 18-Foot Gable end Wall
 - The gable end wall studs do not support a roof load. They form a non-load-bearing wall. From Table R602.3(5), non-bearing walls may have studs up to 20 feet tall when using 2 x 6 lumber.



Tall wall studs in gable, no roof load

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R602.7 Headers

Change TYPE: Modification

- The girder and header span tables of Chapter 5 have been moved into Chapter 6, to the header section. Multi-ply and single header tables are combined. A new section describing rim board headers is added.

2015	2012
R602.7	Tables R502.5(1), R502.5(2), R602.7.1

TABLE R602.7(3) Girder and Header Spans^a for Open Porches (Maximum Span for Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine-Fir^b)

Size	Supporting Roof						Supporting Floor	
	Ground Snow Load ^c (psf)						Depth of Porch ^d (feet)	
	20	50	70	100	150	200		
2-2 x 8	7-0	8-8	8-2	4-8	5-4	4-0	6-4	4-0
2-2 x 8	10-1	7-7	8-3	8-2	7-1	5-4	8-5	6-3
2-2 x 10	12-4	9-4	10-1	7-7	8-9	6-7	10-4	7-0
2-2 x 12	14-4	10-10	11-5	8-10	10-1	7-9	11-11	9-0

^a For S1: 1 inch = 25.4 mm; 1 foot = 304.8 mm; 1 pound per square foot = 0.0479 kPa.
^b Spans are given in feet and inches.
^c Tabulated values assume #2 grade lumber, wet service and incisions for eave-toy structures. Use 30 psf ground snow load for cases in which ground snow load is less than 30 psf and the roof live load is equal to or less than 20 psf.
^d Porch width is measured horizontally from building face to the centerline of the header. For widths between three spans, spans are assumed to be full spanned.

R602.7 Headers

Change Type: Modification

- The girder and header span tables of Chapter 5 have been moved into Chapter 6, to the header section. Multi-ply and single header tables are combined. A new section describing rim board headers is added.

2015	2012
R602.7	Tables R502.5(1), R502.5(2), R602.7.1

TABLE R602.7.5 Minimum Number of Full Height Studs at Each End of Headers in Exterior Walls

Header Span (feet)	Maximum Stud Spacing (in.) per Table R602.3(5)	
	16	24
≤3	1	1
4	2	1
8	3	2
12	5	3
16	6	4

Table R602.10.5 Contributing Length of Method CS-PF Braced Wall Panels

Change Type: Modification

2015	2012
Table R602.10.5	Table R602.10.5

TABLE R602.10.5 Minimum Length of Braced Wall Panels

Method (See Table R602.10.4)	Minimum Length ^a (in.)					Contributing Length (in.)	
	Wall Height						
	8 ft.	9 ft.	10 ft.	11 ft.	12 ft.		
CS-PF	SDC A, B, and C	16	18	20	22 ^a	24 ^a	1.5 × Actual ^b
	SDC D _m , D _s , and D _t	16	18	20	22 ^a	24 ^a	Actual ^b

(Portions of table and footnotes not shown for brevity and clarity.)

R602.10.11 Cripple Wall Bracing

2015	2012
R602.10.11	R602.10.11

Change Type: Modification

- A reduction is no longer required in determining the maximum distance between braced wall panels in a cripple wall. References to the bracing length adjustment tables clarify that increased bracing is required if gypsum wall finish is not applied to the cripple walls.

R602.12 Simplified Wall Bracing

- Change Type: Modification

2015	2012
R602.12	R602.12

TABLE R602.12.4 Minimum Number of Bracing Units on Each Side of the Circumscribed Rectangle

Ultimate Design Wind Speed (mph)	Store Level	Face-To-Face Height (feet)	Minimum Number of Bracing Units on Each Long Side**					
			Length of short side (ft)					
			10	20	30	40	50	60
113	1	10	1	2	2	2	3	3
		15	2	3	3	4	5	6
		20	2	3	4	5	2	8
123	1	10	1	2	3	4	4	4
		15	2	3	4	5	6	7
		20	2	3	3	5	2	8

R602.12 Simplified Wall Bracing

2015	2012
R602.12	R602.12

TABLE R602.12.4 (Continued)

Ultimate Design Wind Speed (mph)	Store Level	Face-To-Face Height (feet)	Minimum Number of Bracing Units on Each Long Side**					
			Length of short side (ft)					
			10	20	30	40	50	60
130	1	10	1	2	2	2	3	3
		15	2	3	3	4	5	6
		20	2	3	4	5	2	8
140	1	10	1	2	3	4	4	4
		15	2	3	4	5	6	7
		20	2	3	3	5	2	8

R606 Masonry Walls

2015	2012
R606	R606, R607, R608, R609

- Change Type: Reorganization

- Sections R606, R607, R608, and R609 have been organized into one section providing requirements for masonry construction of single- and two-family dwellings and townhouses.

R606 Masonry Walls

2015	2012
R606	R606, R607, R608, R609

TABLE R606 (Continued)

Section Title	2015 IRC	2012 IRC
Control multiple wythe masonry	R606.3.6	R609.2
Bracing of backup wythe	R606.3.6.1	R609.2.1
Joint ladders	R606.3.6.2	R609.2.3
Masonry bonding pattern	R606.3.7	R608.2
Masonry laid in running bond	R606.3.7.1	R608.2.1
Masonry laid in stack bond	R606.3.7.2	R608.2.2
THICKNESS OF MASONRY	R606.4	R606.2
Minimum thickness	R606.4.1	R606.2.1
Rubble stone masonry wall	R606.4.2	R606.4.2
Change in thickness	R606.4.3	R606.2.3
Parapet walls	R606.4.4	R606.2.4
COMBLED MASONRY	R606.5	R606.3
Units	R606.5.1	R606.3.1
Joint projection	R606.5.2	R606.3.2
Jointed masonry supporting floor or roofline members	R606.5.3	R606.3.3
SUPPORT CONDITIONS	R606.6	R606.4
Shoring in support	R606.6.1	R606.4.1
Support of foundation	R606.6.2	R606.4.2
Beam support	R606.6.3	R606.4.4
Joist loading	R606.6.3.1	R606.4.4.1
Lateral support	R606.6.4	R606.4.5
Spacing of Lateral Support for Masonry Walls	Table R606.6.4	Table R606.9
Horizontal lateral support	R606.6.4.1	R606.4.5.1
Bonding pattern	R606.6.4.1.1	R606.4.5.1.1
Metal reinforcement	R606.6.4.1.2	R606.4.5.1.2
Vertical lateral support	R606.6.4.2	R606.4.5.2
Roof structure	R606.6.4.2.1	R606.4.5.2.1
Floor diaphragms	R606.6.4.2.2	R606.4.5.2.2
PIERS	R606.7	R606.6
Plan view	R606.7.1	R606.6.1
CHASES	R606.8	R606.7
ALLOWABLE STRESSES	R606.9	R606.5
Crackload limits	R606.9.1	R606.5.1
Allowable Compressive Stresses for Empirical Design of Masonry	Table R606.9	Table R606.5
ENTRALS	R606.10	R606.10
ANCHORAGE	R606.11	R606.11
Anchor requirements for masonry walls located in Seismic Design Category A, B, or C and where wind loads are less than 50 psf	Figure R606.11(1)	Figure R606.11(1)
Requirements for residential grouted masonry construction in Seismic Design Category C	Figure R606.11(2)	Figure R606.11(2)
Requirements for residential masonry construction in Seismic Design Category D, D _s , or D _m	Figure R606.11(3)	Figure R606.11(3)

R606 Masonry Walls

2015 2012
R606 R606, R607,
R608, R609

Section Title	2015 IRC	2012 IRC
SEISMIC REQUIREMENTS		
General	R606.12	R606.12
Floor and wall diaphragm construction	R606.12.1	R606.12.1
Seismic design category C	R606.12.2	R606.12.2
Minimum length of wall without openings	R606.12.2.1	R606.12.2.1
Minimum axial wall length along exterior wall face	Table R606.12.2.1	Table R606.12.2.1
Design of elements not part of the lateral force-resisting system	R606.12.2.2	R606.12.2.2
Load limiting braces in columns	R606.12.2.2.1	R606.12.2.2.1
Masonry pier/brace walls	R606.12.2.2.2	R606.12.2.2.2
Reinforcement requirements for masonry columns	R606.12.2.2.3	R606.12.2.2.3
Design of elements part of the lateral force-resisting system	R606.12.2.3	R606.12.2.3
Connections to masonry shear walls	R606.12.2.3.1	R606.12.2.3.1
Connections to masonry columns	R606.12.2.3.2	R606.12.2.3.2
Minimum reinforcement requirements for masonry shear walls	R606.12.2.3.3	R606.12.2.3.3
Seismic Design Category D _s or D _w	R606.12.3	R606.12.3
Change requirements	R606.12.3.1	R606.12.3.1
Minimum reinforcement requirements for masonry walls	R606.12.3.2	R606.12.3.2
Minimum Reinforced Wall Reinforcement for Buildings Assigned to Seismic Design Category D _s or D _w	Table R606.12.3.2	Table R606.12.3.2
Clear wall reinforcement requirements	R606.12.3.3	R606.12.3.3
Minimum reinforcement for masonry columns	R606.12.3.4	R606.12.3.4
Material reduction factor	R606.12.3.5	R606.12.3.5
Lateral bracing systems	R606.12.4	R606.12.4
Seismic Design Category D _s	R606.12.4.1	R606.12.4.1
Design of elements not part of the lateral force-resisting system	Table R606.12.4.1	Table R606.12.4.1
Minimum Bracing for Stacked Reinforced Masonry Walls in Seismic Design Category D _s	R606.12.4.2	R606.12.4.2
Design of elements part of the lateral force-resisting system	Table R606.12.4.2	Table R606.12.4.2
Minimum Bracing for Stacked Reinforced Masonry Walls in Seismic Design Category D _w	R606.13	R606.13
NON-SEISMIC REQUIREMENTS		
Building with masonry lintels	R606.13.1	R606.13.1
Buildings with	R606.13.1.1	R606.13.1.1
Building with wall ties or post reinforcement	R606.13.1.2	R606.13.1.2
Building with wall ties	R606.13.2	R606.13.2
Building with adjustable wall ties	R606.13.2.1	R606.13.2.1
Building with precast- and cast-in-place concrete	R606.13.2.2	R606.13.2.2
Building with masonry or cast-in-place concrete	R606.13.3	R606.13.3
Building with masonry	R606.13.3.1	R606.13.3.1
Building with masonry	R606.13.3.2	R606.13.3.2
ANCHORED AND ADHESION MASONRY TIES		
General	R606.14	R606.14
Anchor rods	R606.14.1	R606.14.1
Adhesive	R606.14.2	R606.14.2

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Wall Construction

8. A two-story single family dwelling is located in Wind Exposure Category C. Can the Simplified Wall Bracing procedure be used for the dwelling?

Yes, if the design meets the criteria for Simplified Wall Bracing.

Chapter 7

Wall Covering

R703.3 Siding Material Thickness and Attachment

Change Type: Modification

2015 2012
R703.3 R703.4

- Table R703.4, Weather Resistant Siding Attachment and Minimum Thickness, is simplified. New code language is added to Section R703 to clarify limitations of use of the table and to describe fastener type, length, and penetration.

TABLE R703.3.1 Limits for Attachment per Table R703.3(1)

Ultimate Wind Speed (mph, 3-second gust)	Maximum Mean Roof Height		
	B	C	D
115	NL	50'	20'
120	NL	39'	DR
130	60'	15'	DR
140	35'	DR	DR

For SE: 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s
NL = not limited by Table R703.3.1, DR = Design Required

R703.3 Siding Material Thickness and Attachment

2015	2012
R703.3	R703.3

TABLE R703.3.2 Optional Siding Attachment Schedule for Fasteners Where No Stud Penetration Necessary

Application	Number and type of Fastener	Spacing of Fasteners ^b
Exterior wall covering (weighing 3 psf or less) attachment to wood structural panel sheathing, either direct or over foam sheathing a maximum of 2 inches thick. ^a	Ring shank roofing nail (0.120" min. dia.)	12" o.c.
	Ring shank nail (0.148" min. dia.)	15" o.c.
Note: Does not apply to vertical siding.	No. 6 screw (0.138" min. dia.)	12" o.c.
	No. 8 screw (0.164" min. dia.)	16" o.c.

- a. Fastener length shall be sufficient to penetrate back side of the wood structural panel sheathing by at least 1/4 inch. The wood structural panel sheathing shall be not less than 7/16 inch in thickness.
- b. Spacing of fasteners is per 12 inches of siding width. For other siding widths, multiply spacing of fasteners above by a factor of 12/s, where s is the siding width in inches. Fastener spacing shall never be greater than the manufacturer's minimum recommendations.

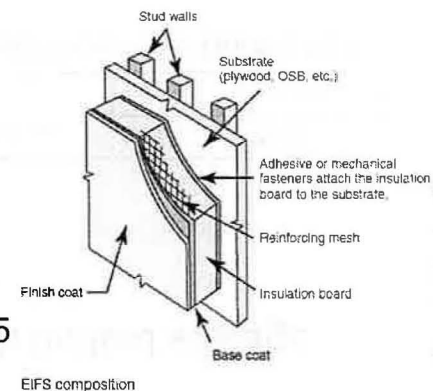


R703.9 Exterior Insulation and Finish Systems (EIFS)

2015	2012
R703.9	R703.9

Change Type: Modification

- Limitations for exterior insulation and finish systems with and without drainage have been added to the 2015 IRC.



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R703.11.1 Vinyl Siding Attachment

2015	2012
R703.11.1	-

- Change Type: Addition
 - Nailing penetration and spacing requirements for horizontal and vertical vinyl siding.



R703.13, R703.14 Insulated Vinyl Siding and Polypropylene Siding

2015	2012
R703.13, R703.14	-

- Change Type: Addition
 - New sections set minimum requirements for insulated vinyl siding and polypropylene siding.

- Insulated Vinyl Siding.** A vinyl cladding product with manufacturer-installed foam plastic insulating material as an integral part of the cladding product, having a minimum thermal resistance of not less than R-2.
- Polypropylene Siding.** A shaped material, made principally from polypropylene homopolymer, or copolymer, that in some cases contains fillers or reinforcements, that is used to clad exterior walls or buildings.



R703.15, R703.16, R703.17 Cladding Attachment over Foam Sheathing

2015	2012
R703.15, R703.16, R703.17	-

- Change Type: Addition
 - Three new sections set minimum requirements for cladding attachment over foam sheathing to wood framing (R703.15), cold formed steel framing (R703.16) and masonry or concrete walls (R703.17). For light-frame construction, prescriptive requirements are given.



Tables R802.4, R802.5 Ceiling Joist and Rafter Tables

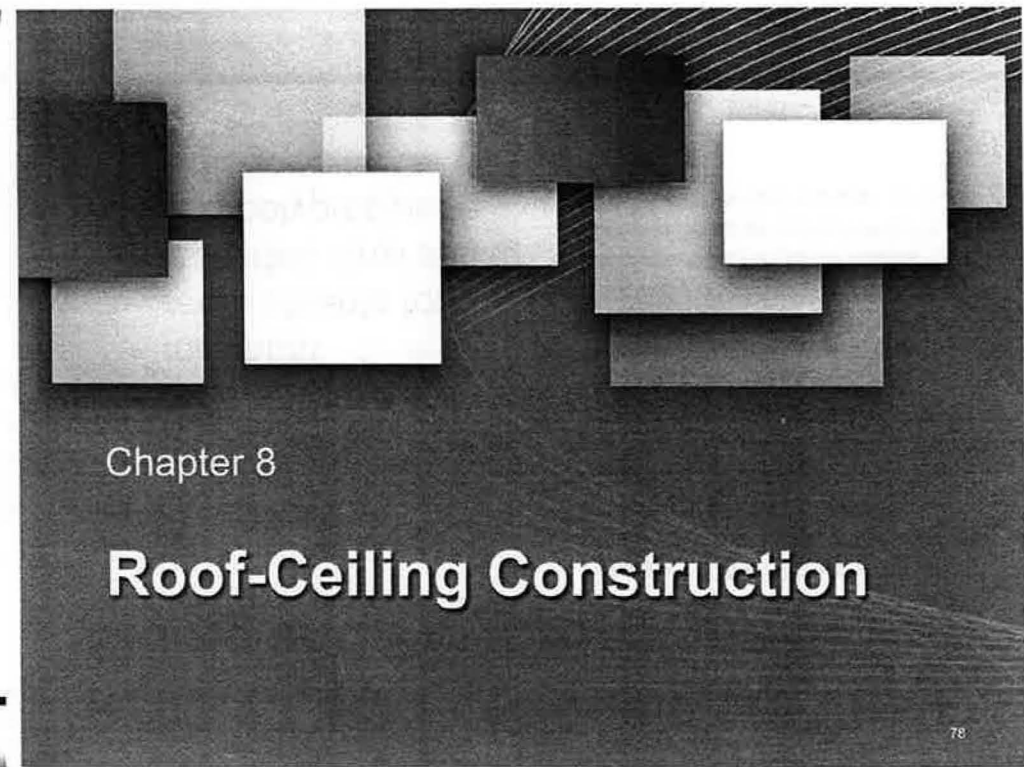
- Change Type: Modification

2015	2012
Tables R802.4, R802.5	Tables R802.4, R802.5 .1

TABLE R802.4(1) Ceiling Joist Spans for Common Lumber Species
Uninhabitable attics without storage, live load = 10 psf, L/A = 3/0

Ceiling Joist Spacing (inches)	Species and Grade	Head Load = 5 psf			
		2 x 4	2 x 6	2 x 8	2 x 10
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
16"	Douglas fir-larch SS	11-11	18-0	24-8	Note a
	Douglas fir-larch #1	11-6	18-1	24-10	Note a
	Douglas fir-larch #2	11-3	17-8	23-4	Note a
	Douglas fir-larch #3	9-7	14-1	17-10	21-9
	Hem-fir SS	11-3	17-8	24-1	Note a
	Hem-fir #1	11-0	17-4	22-10	Note a
	Hem-fir #2	10-6	16-6	21-9	Note a
	Hem-fir #3	9-3	13-9	17-5	21-3
	Southern pine SS	11-9	18-5	24-3	Note a
	Southern pine #1	11-3	17-9	23-10	Note a
	Southern pine #2	10-9	16-11	21-7	23-7
	Southern pine #3	9-8	12-11	16-3	18-9
	Spruce-pine-fir SS	11-0	17-4	22-10	Note a
	Spruce-pine-fir #1	10-9	16-11	22-4	Note a
	Spruce-pine-fir #2	10-9	16-11	22-4	Note a
	Spruce-pine-fir #3	9-3	13-9	17-5	21-3

(Portions of table not shown for brevity and clarity)



Chapter 8

Roof-Ceiling Construction



Ceiling Joist Spans

#1 Uninhabitable attic with limited storage

- LL 20 psf
- DL 10 psf
- 2 x 10 joists
- 16" o.c. spacing
- SP #2
- The SP #2 span length is significantly reduced from the 2012 IRC span length.
- Note:** An SP #1 joist will span about the same length in the 2015 IRC Table R802.4(1) or R802.4(2) as the SP #2 did in the tables in the 2012 IRC.

Maximum Span Allowed	2012	2015
	20'-9"	18'-1"



R806.1 Attic Ventilation

2015	2012
R806.1	R806.1

Change Type: Deletion

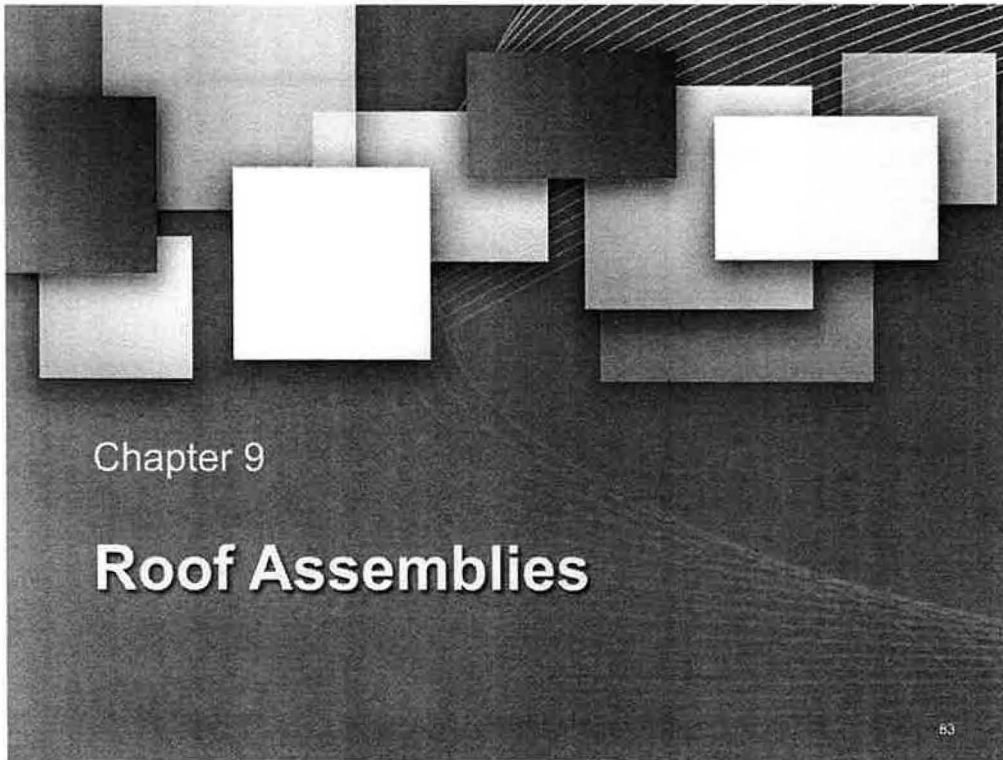
- The 2012 IRC exception allowing the building official to waive ventilation requirements due to atmospheric or climatic conditions has been deleted.



Roof-Ceiling Construction

- Why did changes in span length occurred in the rafter span tables?

The rafter lengths changed due to the capacity (or strength) of today's Southern Pine, Douglas Fir and Hemlock Fir lumber changing.



Chapter 9

Roof Assemblies

R905.1.1 Underlayment

2015	2012
R905.1.1	Multiple Sections

Change Type: Modification

TABLE R905.1.1(1) Underlayment Types

Roof Covering	Section	Maximum Ultimate Design Wind Speed, $V_{ult} < 140$ mph	Maximum Ultimate Design Wind Speed, $V_{ult} \geq 140$ mph
Asphalt shingles	R905.2	ASTM D 226 Type I; ASTM D 4869 Type I, II, III, or IV; ASTM D 6757	ASTM D 226 Type II; ASTM D 4869 Type IV; ASTM D 6757
Clay and concrete tile	R905.3	ASTM D 226 Type II; ASTM D 2626 Type I; ASTM D 6380 Class M mineral surfaced roll roofing	ASTM D 226 Type II; ASTM D 2626 Type I; ASTM D 6380 Class M mineral surfaced roll roofing
Metal roof shingles	R905.4	ASTM D 226 Type I or II; ASTM D 4869 Type I, II, III, or IV	ASTM D 226 Type II; ASTM D 4869 Type IV
Mineral-surfaced roll roofing	R905.5	ASTM D 226 Type I or II; ASTM D 4869 Type I, II, III, or IV	ASTM D 226 Type II; ASTM D 4869 Type IV
Slate and slate-type shingles	R905.6	ASTM D 226 Type I; ASTM D 4869 Type I, II, III, or IV	ASTM D 226 Type II; ASTM D 4869 Type IV
Wood shingles	R905.7	ASTM D 226 Type I or II; ASTM D 4869 Type I, II, III, or IV	ASTM D 226 Type II; ASTM D 4869 Type IV
Wood shakes	R905.8	ASTM D 226 Type I or II; ASTM D 4869 Type I, II, III, or IV	ASTM D 226 Type II; ASTM D 4869 Type IV
Metal panels	R905.10	Manufacturer's instructions	ASTM D 226 Type II; ASTM D 4869 Type IV



R905.1.1 Underlayment

Change Type: Modification

2015 2012
R905.1.1 Multiple Sections

TABLE R905.1.1(2) Underlayment Application

Roof Covering	Section	Maximum Ultimate Design Wind Speed, $V_w = 140$ mph	Maximum Ultimate Design Wind Speed, $V_w = 140$ mph
Asphalt shingles	R905.2	For roof slopes from two units vertical in 12 units horizontal (14:12) to four units vertical in 12 units horizontal (14:12), underlayment shall be two layers applied in the following manner. Apply a 16-inch strip of underlayment felt parallel to and starting at the eave. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 16 inches. Discontinues in the underlayment shall not interfere with the ability of the shingles to shed.	Same as Maximum Ultimate Design Wind Speed, $V_w = 140$ mph except all fasteners shall be a minimum of 6 inches.
		For roof slopes of four units vertical in 12 units horizontal (14:12) or greater, underlayment shall be one layer applied in the following manner. Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. Discontinues in the underlayment shall not interfere with the ability of the shingles to shed. End laps shall be 4 inches and shall be offset by 6 feet.	Same as Maximum Ultimate Design Wind Speed, $V_w = 140$ mph except all fasteners shall be a minimum of 4 inches.
Clay and concrete tile	R905.3	For roof slopes from two and one-half units vertical in 12 units horizontal (14:12) to four units vertical in 12 units horizontal (14:12), underlayment shall be a minimum of two layers applied as follows, starting at the eave, apply a 16-inch strip of underlayment parallel to and starting at the eave. Apply 36-inch-wide sheets of underlayment felt, overlapping successive sheets 16 inches.	Same as Maximum Ultimate Design Wind Speed, $V_w = 140$ mph except all fasteners shall be a minimum of 4 inches.
		For roof slopes of four units vertical in 12 units horizontal (14:12) or greater, underlayment shall be a minimum of one layer of underlayment felt, applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. End laps shall be 4 inches and shall be offset by 6 feet.	
Metal roof shingles	R905.4		For roof slopes from two units vertical in 12 units horizontal (14:12) to four units vertical in 12 units horizontal (14:12), underlayment shall be two layers applied in the following manner, apply a 16-inch strip of underlayment felt parallel to and starting at the eave. Starting at the eave, apply 36-inch-wide sheets of underlayment containing successive sheets 16 inches, and fastened sufficiently to hold in place.
Aluminum surfaced roll roofing	R905.5		
Slate and plastic-modified shingles	R905.6		
Wood shingles	R905.7	Apply in accordance with the manufacturer's installation instructions.	
Wood shakes	R905.8		For roof slopes of four units vertical in 12 units horizontal (14:12) or greater, underlayment shall be one layer applied in the following manner, underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 4 inches. End laps shall be 4 inches and shall be offset by 6 feet.
Metal panels	R905.10		

R905.1.1 Underlayment

Change Type: Modification

2015 2012
R905.1.1 Multiple Sections

TABLE R905.1.1(1) Underlayment Attachment

Roof Covering	Section	Maximum Ultimate Design Wind Speed, $V_w = 140$ mph	Maximum Ultimate Design Wind Speed, $V_w = 140$ mph
Asphalt shingles	R905.2		The underlayment shall be attached with corrosion-resistant fasteners in a grid pattern of 12 inches between side laps with a 6-inch overlap at the side laps.
		Fastened sufficiently to hold in place.	Underlayment shall be attached using metal or plastic cap nails or cap staples with nominal cap diameter of not less than 1/8 inch. Metal caps shall have a thickness not less than 24 gauge, sheet metal. Power-driven metal caps shall have a minimum thickness of 0.010 inch. Minimum thickness of the outside edge of plastic caps shall be 0.010 inch. The nominal shank shall be not less than 0.091 inch for ring-shank cap nails and 0.091 inch for smooth-shank cap nails. Plastic caps shall be not less than 21 gauge. Cap-nail shank and staple legs shall have a length sufficient to penetrate through the roof sheathing or roof deck, then to lock into the roof sheathing.
Clay and concrete tile	R905.3		
Metal roof shingles	R905.4		The underlayment shall be attached with corrosion-resistant fasteners in a grid pattern of 12 inches between side laps with a 6-inch overlap at the side laps.
	R905.5		Underlayment shall be attached using metal or plastic cap nails or cap staples with nominal cap diameter of not less than 1/8 inch. Metal caps shall have a thickness of at least 22 gauge sheet metal. Fiberglass-reinforced caps shall have a minimum thickness of 0.010 inch. Minimum thickness of the outside edge of plastic caps shall be 0.010 inch. The nominal shank shall be not less than 0.091 inch for ring-shank cap nails and 0.091 inch for smooth-shank cap nails. Plastic caps shall be not less than 21 gauge. Cap-nail shank and staple legs shall have a length sufficient to penetrate through the roof sheathing or roof deck, then to lock into the roof sheathing.
Aluminum surfaced roll roofing	R905.6		
Slate and plastic-modified shingles	R905.7		Manufacturer's installation instructions.
Wood shingles	R905.8		
Wood shakes	R905.9		
Metal panels	R905.10		

R905.7.5 Wood Shingle Application

Change Type: Modification

- The minimum requirements for application of wood shingles are expanded. Fastener type is clarified and a new table lists minimum sizes for box nails. Labeling requirements for fastener packaging have also been added.

2015 2012
R905.7.5 R905.7.5

TABLE R905.7.5(2) Nail Requirements for Wood Shakes and Wood Shingles

Shakes	Nail Type and Minimum Length	Minimum Head Size	Minimum Shank Diameter
18" Straight-Split	6d Box 1 1/2"	0.10"	0.08"
18" and 24" Hand-split and Resawn	6d Box 2"	0.10"	0.0915"
24" Tapersplit	5d Box 1 1/2"	0.10"	0.08"
18" and 24" Taper-sawn	6d Box 2"	0.10"	0.0915"
Shingles	Nail Type and Minimum Length	Minimum Head Size	Minimum Shank Diameter
18" and 18"	3d Box 1 1/4"	0.10"	0.08"
24"	4d Box 1 1/4"	0.10"	0.08"

R905.8.6 Wood Shake Application

Change Type: Modification

- The minimum requirements for application of wood shakes are expanded. Fastener type is clarified, and a new table lists minimum sizes for box nails. Labeling requirements for fastener packaging have also been added.

2015 2012
R905.8.6 R905.8.6

R905.16 Photovoltaic Shingles

R905.16 R905.16

- **Change Type:** Modification
 - Additional requirements and limits for photovoltaic shingles have been added to Section R905.16.

- R905.16 Photovoltaic shingles.
- R905.16.1 Deck requirements.
- R905.16.2 Deck slope.
- R905.16.3 Underlayment.
- R905.16.4 Underlayment application.
 - R905.16.4.1 Ice barrier.
 - R905.16.4.2 Underlayment and high winds.

R907 Rooftop-Mounted Photovoltaic Systems

2015 2012
R907 R907

- **Change Type:** Addition
 - This code provision describes the requirements and limits of rooftop-mounted photovoltaic systems.



Part 4
Chapter 11

Energy Conservation

N1101.13 Compliance Paths

2015 2012
N1101.13 N1101.15

Change Type: Modification

- The compliance paths in the energy provisions have been clarified. The mandatory provisions combined with either the prescriptive provisions or the performance provisions are deemed to comply with the code.
1. Sections N1101.14 through N1104.
 2. Section N1105 and the provisions of Sections N1101.14 through N1104 labeled "Mandatory."
 3. An energy rating index (ERI) approach in Section N1106.

N1101.14 Permanent Energy Certificate

2015 2012

N1101.14 N1101.16

- **Change Type:** Modification
 - The code now requires the permanent energy certificate to be placed on a wall in proximity to the furnace, in a utility room, or in another approved location inside the building.

Energy Efficiency Certificate	
Insulation Rating	
Ceiling/roof	
Walls	
Floors	
Ducts	
Air-leakage Test Results	
Blower door	Duct testing
Penetration Rating	
Window	
Opaque door	
Skylight	
Equipment Performance	
Heating system	
Cooling system	
Water heater	
Designer/builder	

© International Code Council

Permanent energy certificate

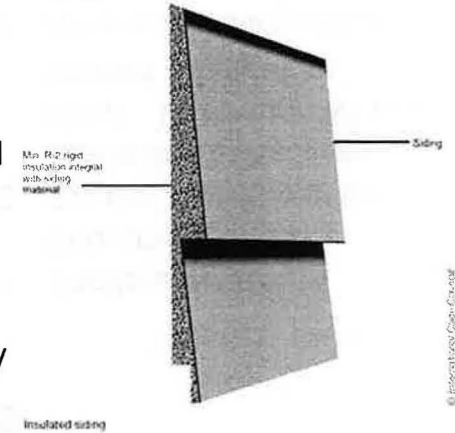


N1102.1.3 R-Value Computation—Insulated Siding

2015 2012

N1102.1.3 N1102.1.2

- **Change Type:** Modification
 - Insulated siding is allowed in the calculation for satisfying the wall insulation R-value. The labeled R-value for the siding must be reduced by 0.6 for calculation purposes.



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N1102.2.8, Floor Framing Cavity Insulation

2015 2012

N1102.2.8 N1102.2.7

- **Change Type:** Modification
 - An air space is allowed above the required insulation installed in a floor framing cavity above unconditioned space.



N1103.3 Duct Sealing and Testing

2015 2012

N1103.3 N1103.2

- **Change Type:** Modification
 - The duct sealing and testing provisions have been reorganized to clarify the application. The maximum duct leakage rates are now prescriptive rather than mandatory provisions to accommodate design flexibility.



N1103.5 Heated Water Circulation and Temperature Maintenance Systems

N1103.5 N1103.4

- **Change Type:** Modification
 - Automatic controls to maintain hot water temperature for heated water circulation systems and for heat trace temperature maintenance systems when such systems are installed. To save energy, continuously operating circulation pumps are no longer permitted. Heat trace systems must comply with one of the referenced standards.



Energy Conservation

10. Where may a permanent energy certificate be placed?

The permanent energy certificate may now be placed in multiple locations, including on a wall near the furnace or in a utility room.

Chapter 15 Exhaust Systems

M1502.4.4, M1502.4.5 Dryer Exhaust Duct Power Ventilators

2015 2012
M1502.4.4, M1502.4.4
M1502.4.5

- **Change Type:** Addition
 - The code now recognizes the use of dryer exhaust duct power ventilators (DEDPVs) to increase the allowable exhaust duct length for clothes dryers.



M1502.4.6 Dryer Duct Length Identification

2015	2012
M1502.4.6	M1502.4.5

- Change Type: Modification
 - A permanent label identifying the concealed length of the dryer exhaust duct is no longer required where the equivalent duct length does not exceed 35 feet. For the dryer exhaust duct exceeding 35 feet, a label or tag is required whether the duct is concealed or not.



M1506.2 Exhaust Duct Length

2015	2012
M1506.2	-

- Change Type: Addition
 - The code establishes maximum exhaust duct lengths based on duct diameter, type of duct and the exhaust fan airflow rating.

TABLE M1506.2 Duct Length

Duct Type	Flex Duct										Smooth-Wall Duct						
Fan airflow rating (CFM @ 0.25 in. h ₂ O)	50	80	100	125	150	200	250	300	50	80	100	125	150	200	250	300	
Diameter* (inches)	Maximum length** (feet)																
3	X	X	X	X	X	X	X	X	5	X	X	X	X	X	X	X	
4		50	4	X	X	X	X	X	114	31	10	X	X	X	X	X	
5		NL	81	42	10	2	X	X	NL	152	91	31	28	4	X	X	
6		NL	NL	150	91	55	18	1	X	NL	NL	NL	168	112	53	25	9
7		NL	NL	NL	NL	163	79	40	12	NL	NL	NL	NL	NL	140	80	54
8 and above		NL	NL	NL	NL	NL	189	111	59	NL	NL	NL	NL	NL	NL	198	132

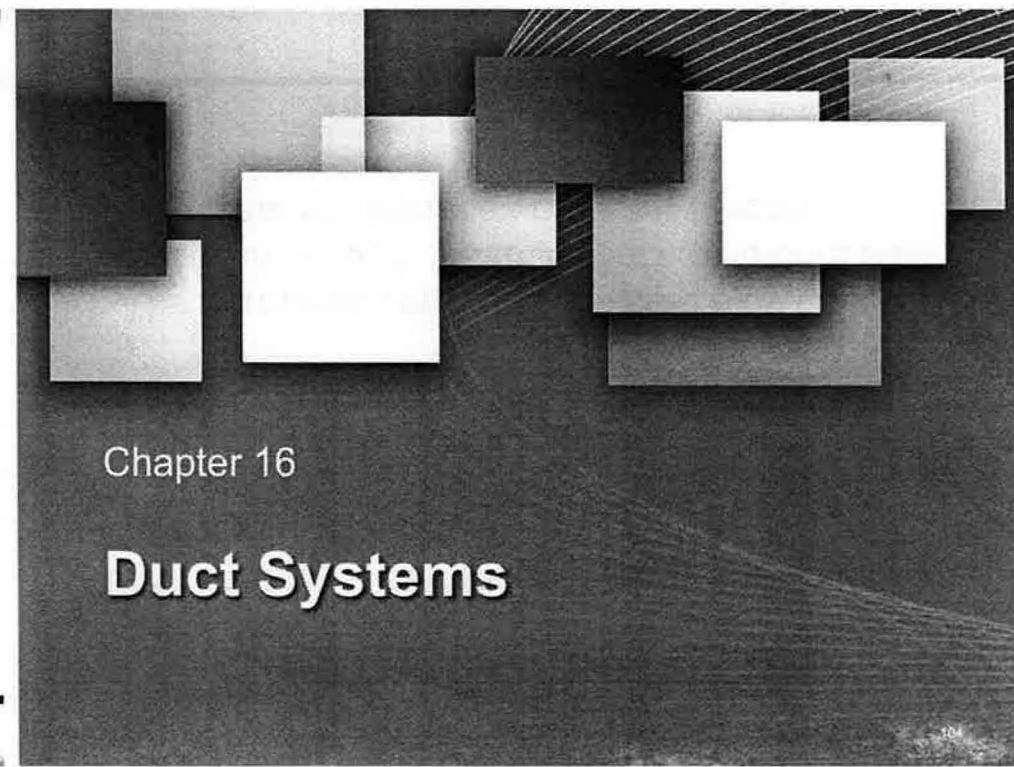
1. Fan airflow ratings shall be in accordance with ANSI/AMCA 210-ANSI/ASHRAE 54.
 2. For non-corrugated duct, calculate the diameter as four times the cross-sectional area divided by the perimeter.
 3. This table assumes that elbows are not used. Fifteen feet (5 m) of allowable duct length shall be deducted for each elbow installed in the duct run.
 4. NL = no limit on duct length of this size.
 5. X = not allowed. Any length of duct of this size with assumed joints and fittings will exceed the rated pressure drop.



Exhaust Systems

11. Do concealed dryer ducts require a permanent label stating their length?

Maybe, all dryer ducts longer than 35 ft require a permanent label, concealed ducts less than 35 feet in length do not require a label stating their length.



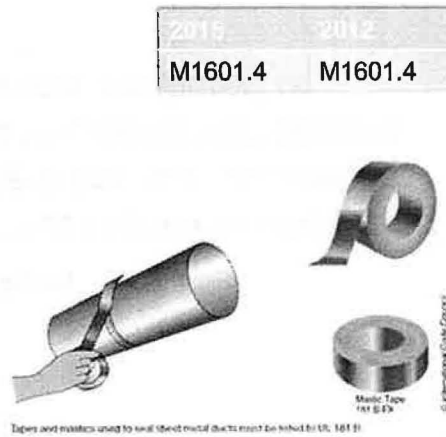
Chapter 16

Duct Systems

M1601.4 Duct Installation

Change Type: Modification

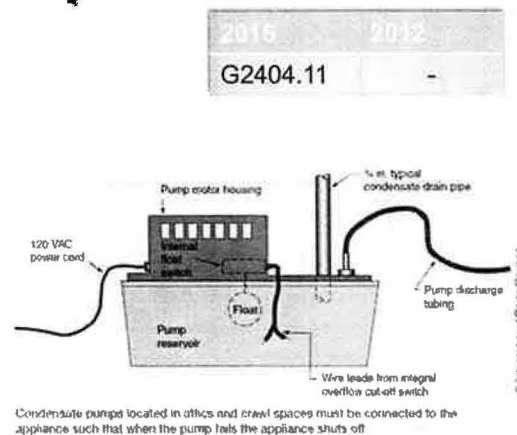
- Tapes and mastics used to seal sheet metal ducts must be listed to UL 181 B as has been required for sealing flexible ducts. Snap-lock and button-lock seams are no longer exempt from the sealing requirements.



G2404.11 Condensate Pumps

Change Type: Addition

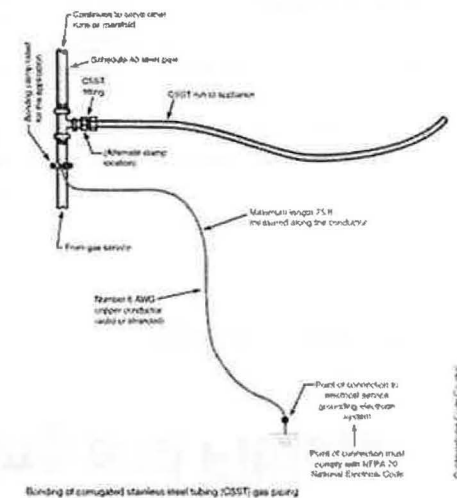
- Condensate pumps located in uninhabitable spaces must be connected to the appliance to shut down the equipment in the event of pump failure.



G2411.1.1 Electrical Bonding of Corrugated Stainless Steel Tubing

Change Type: Modification

- The maximum allowable length of the bonding jumper for corrugated stainless steel tubing (CSST) is 75 feet. Bonding methods must comply with NFPA 70 and devices, such as clamps, must be listed in accordance with UL 467.



Part 6 Chapter 24 Fuel Gas

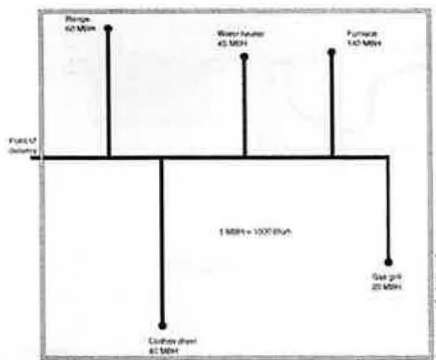
G2413.2

Maximum Gas Demand

2015	2012
G2413.2	G2413.2, Table G2413.2

Change Type: Modification

- Table G2413.2 and the reference to it were deleted to clarify that the code requires the actual maximum input rating of the appliances to be known and used for gas pipe sizing purposes.



Gas piping size is based on the actual maximum input rating of the appliances.



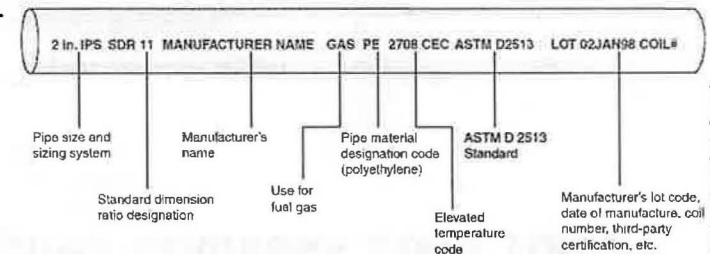
G2414.6

Plastic Pipe, Tubing and Fittings

2015	2012
G2414.6	G2414.6

Change Type: Modification

- PVC and CPVC pipe are expressly prohibited materials for supplying fuel gas.



Approved polyethylene gas piping with markings in accordance with the code and ASTM D 2513



G2415.7 Protection of Concealed Piping Against Physical Damage

2015	2012
G2415.7	G2415.7

Change Type: Modification

- Piping parallel to framing members and piping within framing members are now addressed. Protection is required to extend well beyond the edge of members that are bored or notched.



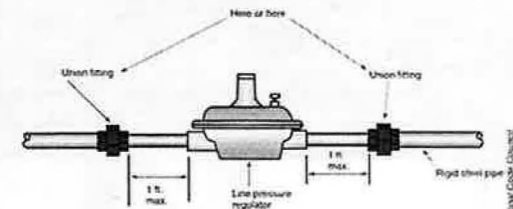
G2421.2

Medium-Pressure Regulators

2015	2012
G2421.2	G2421.2

Change Type: Modification

- Medium-Pressure (MP) line regulators installed in rigid piping must have a union installed to allow removal of the regulator.



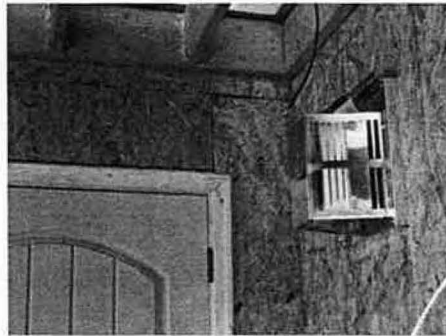
Union required for Medium-Pressure (MP) regulator connected to rigid piping



G2426.7.1 Door Clearance to Vent Terminals

Change Type: Addition

- An appliance vent terminal is not permitted in a location within 12 inches of the arc of a swinging door.

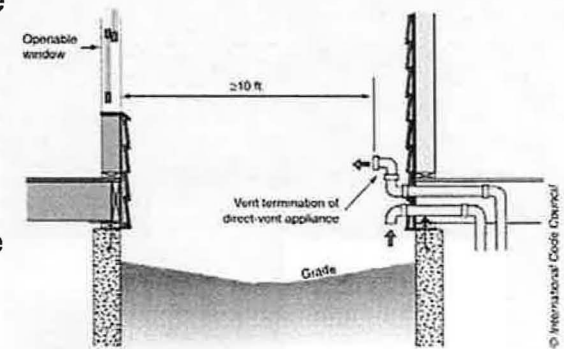


2015	2012
G2426.7.1	-

G2427.8 Venting System Termination Location

Change Type: Modification

- Category IV appliance vent system terminal locations must be at least 10 feet from an adjoining building opening when the vent discharges in the direction of the adjacent building.



A minimum 10-foot horizontal separation is required between a vent terminal and an opening of an adjacent building.

2015	2012
G2427.8	G2427.8



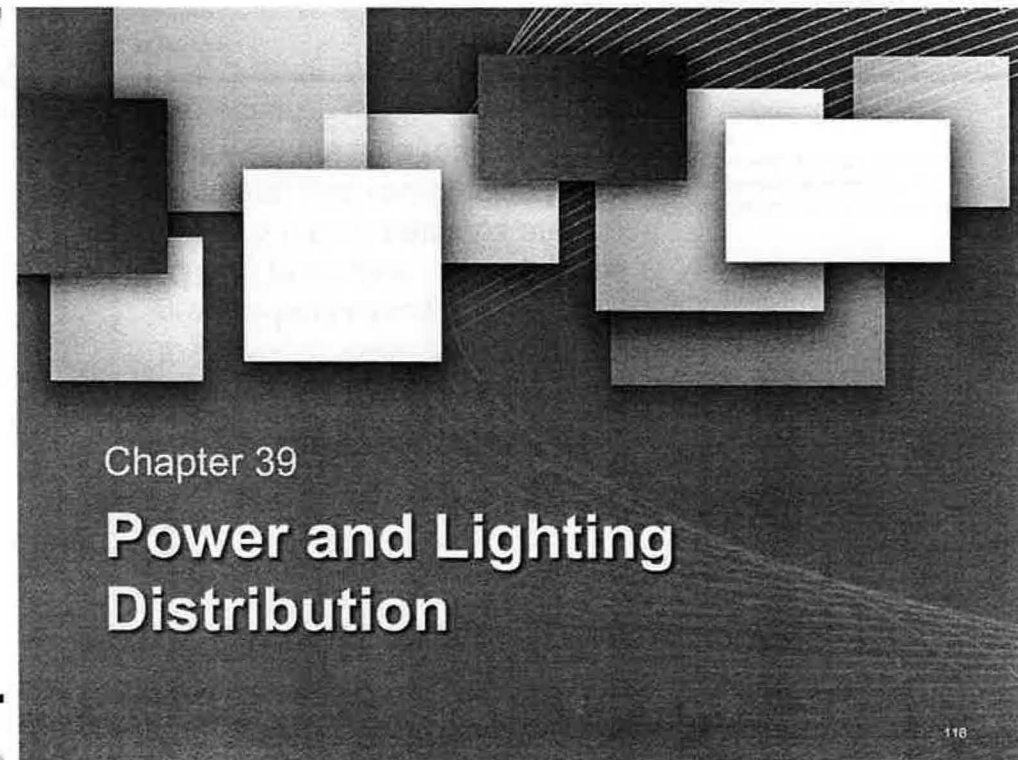
ACTIVITY



Fuel Gas

- Can CPVC pipe be used for natural gas supply lines?

No, neither PVC nor CPVC pipe may be used to supply fuel gas.



Chapter 39

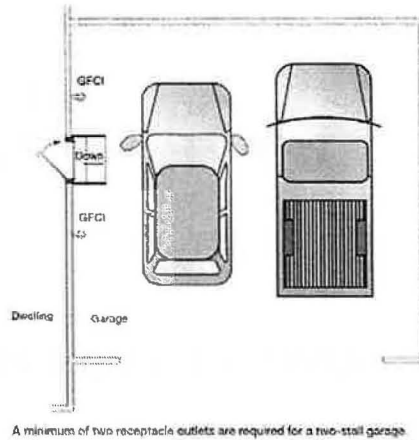
Power and Lighting Distribution

E3901.9 Receptacle Outlets for Garages

2015 2012

E3901.9 E3901.9

- Change Type: Modification
 - Garage receptacle outlets must be served by a separate branch circuit that does not supply other outlets. At least one receptacle outlet is required for each car space in a garage.



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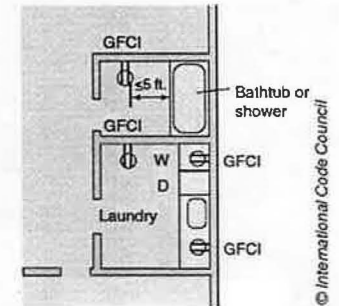


E3902.8, E3902.9, E3902.10 Ground-Fault Circuit Interrupter Protection

2015 2012

E3902.8,
E3902.9,
E3902.10

- Change Type: Modification
 - Laundry areas have been added to the list of locations requiring ground-fault circuit interrupter (GFCI) protection. Receptacles within 6 feet of bathtubs and showers, and receptacles for dishwashers also require GFCI protection.



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GFCI protection required for 125-volt, 15- and 20-amp receptacle outlets in laundry areas and near showers or bathtubs



Power and Lighting Distribution

14. Describe a new location requiring GFCI circuits.

Within 6 feet of a bathtub or shower, for use by a dishwasher, and in laundry areas.



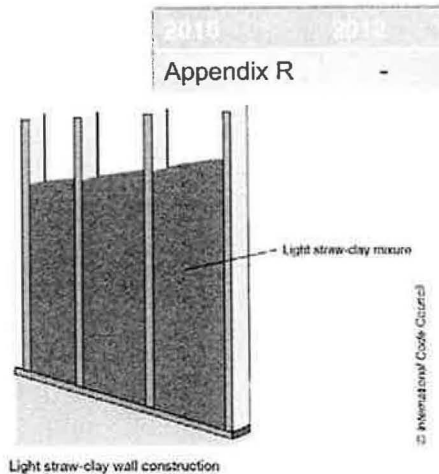
Part 9

Appendices

Appendix R Light Straw-Clay Construction

Change Type: Addition

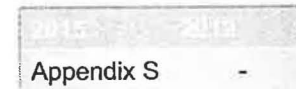
- Prescriptive provisions for light straw-clay construction have been added as an appendix to the 2015 IRC. Light straw-clay walls are nonbearing infill around a structural frame.



Appendix S Strawbale Construction

Change Type: Addition

- Prescriptive provisions for strawbale construction have been added as an appendix to the 2015 IRC. Strawbale walls may be bearing walls or nonbearing infill around a structural frame depending upon the method of construction and detailing. Appendix S contains requirements for both construction methods.



City of St. Charles

Ordinance No. _____

An Ordinance Amending Chapter 15.04 “Building Code”, Section 15.04.010 “2015 International Building Code - Regulations Adopted and Modified” of the St. Charles Municipal Code

WHEREAS, the standard code known as 2015 International Building Code, has been updated by the International code Council Inc.: and

WHEREAS, not less than one (1) copy of the 2015 International Residential Code for One and Two Family Dwellings, published February 2015 by International Code Council, Inc., 4051 West Flossmoor Road, Country Club Hills, IL 60478 have been and are on file in the Office of the Clerk of the City of St. Charles, Illinois for more than thirty (30) days prior to the passage and approval of this Ordinance; and

WHEREAS, the Building Official has provided notice to the Illinois Building Commission regarding proposed changes to regulations regarding construction related activities within the City of St. Charles, as provided by 20 ILCS 3918/55; and

WHEREAS, the City Council finds it to be in the interest of City of St. Charles to periodically update codes regulating buildings and structures.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of St. Charles, Kane and DuPage Counties, Illinois as follows:

SECTION ONE: That Title 15, “Buildings and Construction”, Chapter 15.04 “Building Code” of the St. Charles Municipal Code be and is hereby amended by deleting the provisions of Section 15.04.015 entitled “2015 International Building Code-Regulations adopted and modified” and by substituting the following therefor:

15.04.010 International Building Code 2015 – Regulations Adopted and Modified.

The 2015 International Building Code issued by the International Code Council, Inc., 4051 West Flossmoor Road, Country Club Hills, IL, 60478, one (1) full edition of which has been and are on file in the Office of the Clerk of the City of St. Charles, Illinois, for more than thirty (30) days, together with the amendments listed in Section 15.04.015 hereof, are hereby adopted as the regulations governing the construction of buildings and structures within the City of St. Charles, except for one- and two-family dwellings and townhouses not more than three stories in height, which are covered by Section 15.04.020. (For adoption of administrative provisions in Chapter 1 of the International Building Code, see Chapter 15.101).

15.04.015 Amendments to the 2015 International Building Code.

1. Amend Section 202 “Definitions” by adding the following:

Townhouse: A single family dwelling unit constructed in a group of 3, 4, 5, or 6 attached units in which each unit extends from foundation to roof and with open

Ordinance No. 2016-M-_____

Page 2

space on at least two (2) sides. Dwelling units where more than six (6) units are attached shall be governed by code provisions applicable to multiple family dwellings, rather than the provisions of this one (1) and two (2) family dwelling code.

2. Amend Section 410.7 “Automatic Sprinkler System” by deleting exceptions #2.
3. Delete the provision in section 706.3 “Materials” in its entirety and substitute the following therefore:
706.3 Materials: Firewalls shall be constructed of approved masonry materials or other similar approved product or assembly.
4. Delete the provisions in Section 903.2 “Sprinkler Systems – Where Required,” inclusive of subsections 903.2.1, 903.2.2, 903.2.3, 903.2.4, 903.2.6, 903.2.7, 903.2.9, and 903.2.10 and substitute the following therefore:
903.2 Where required. Notwithstanding any language to the contrary, that is contained elsewhere in this code, an approved automatic sprinkler system installed in accordance with the provisions of all applicable codes and standards shall be provided and maintained in full operating condition throughout every story and basement of all Use Groups as listed in Section 302.1 of the International Building Code.

Exceptions:

- 1) Structures not considered to be habitable or occupiable of less than 5,000 square feet, with a low fire or life hazard risk and located not less than 30 feet from another structure. Buildings of this type would normally be classified within the Utility and Miscellaneous Group U as described in Section 312 of the International Building Code, Provided:
 - a. The structure is continually monitored by an approved automatic fire alarm system.
 - 2) Open Parking Garages
The requirements, contained in these exceptions, shall be subject to modifications by the authority having jurisdiction to compensate for particular building conditions to meet the intention of the code.
5. Add Section 903.6 as follows:
903.6 Change of use classification. Notwithstanding any language to the contrary contained elsewhere in the codes adopted, an automatic sprinkler system shall be provided throughout a building, when the use classification of the building or a space within the building changes, provided one of the following conditions exists:

1. If the new or proposed use is more hazardous, based on life and fire risk, than the existing use. (see table 903.6)

Ordinance No. 2016-M-____
Page 3

This requirement shall be subject to modifications by the authority having jurisdiction to compensate for particular building conditions.

Hazard Category
Table 903.6.3

Relative Hazard	Occupancy Classifications
1 (highest hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (lowest hazard)	F-2, S-2, U

6. Delete the provisions of Section 907.2 “Where required” and substitute the following therefore:
907.2 Where Required: An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with 907.5, unless other requirements are provided by another section of this code. Notwithstanding any provision of Section 907 and its subsections to the contrary, an approved manual fire alarm signaling system shall be installed and maintained in all buildings over one (1) story in height or over 1,000 square feet.
7. Delete the provisions of Section 907.6.6.1 “Automatic Telephone-Dialing Devices.”
8. Amend the provisions of Section 912.1 “Installation” and substitute the following therefore:
912.1 Installation. The type (Siamese, Storz) and size of the fire department connection shall be in accordance with the NFPA standard applicable to the system design and shall be subject to approval of the Fire Department, based upon an analysis of the building’s size and use group. Generally, a 5-inch size, Storz type connection with a 30 degree downward is required.
9. Add subparagraph 6 to Section “1008.3.3 Emergency Power for Illuminating” as follows:
6. In all rooms and spaces over 1,000 square feet in area with an occupancy load of 20 or more and all mechanical rooms.

10. Amend Table 1020.1 to read as follows:

**Table 1020.1
Corridor Fire Resistance Rating**

Occupancy	Occupant Load Served by Corridor	Required Fire-Resistance Rating (hours)	
		Without Sprinkler System	With Sprinkler System (c)
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, E, F, M, S, U	Greater than 30	Not Permitted	1
R	Greater than 10	Not Permitted	1
I-2 (a), I-4	All	Not Permitted	1
I-1, I-3	All	Not Permitted	1(b)
B	Greater than 30	Not Permitted	1(d)

- | |
|--|
| <p>(a) For requirements for occupancies in Group I-2, see Section 407.3.</p> <p>(b) For a reduction in the fire-resistance rating of occupancies in Group I-3, see Section 408.7.</p> <p>(c) Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.</p> <p>(d) Glass permitted in wall.</p> |
|--|

11. Delete Section 1807.1.4 “Permanent Wood Foundation Systems” in their entirety.

12. Add Exhibit A:

Exhibit A

Performance Guidelines for High Hazard Uses in the City of St. Charles

1. Specific location: The geographic location and distances to other structures, rivers, streams, and other use groups.
2. Zoning: The proximate distances to Assembly, Educational, Institutional, and Residential uses and vacant land zoned for these uses.
3. Types of hazardous materials which are not allowed: Materials listed in Section 307.3 High Hazard Group H-1 that present a detonation hazard shall not be permitted under any circumstances.
4. Allowable construction types: Type I and II only.
5. Required fire protection for High Hazard materials:
 - a. Provide extra hazard Group II fire sprinkler system
 - b. Provide a fixed foam fire protection system
6. Required water supply system: 3,000 to 6,000 gallons per minute from a reliable source.

SECTION TWO: That after the adoption and approval hereof this Ordinance shall be printed or published in book or pamphlet form, published by the authority of the City Council.

SECTION THREE: That this Ordinance shall be in full force and effect on _____
_____, 2016.

Presented to the City Council of the City of St. Charles, Illinois this _____ day of
_____, 2016.

Passed by the City Council of the City of St. Charles, Illinois this _____ day of
_____, 2016.

Approved by the Mayor of the City of St. Charles, Illinois this _____ day of
_____, 2016.

Mayor

Attest:

City Clerk

Council Vote:
Ayes: _____
Nays: _____
Abstain: _____
Absent: _____

Approved as to Form:

City Attorney

Date: _____

ORDINANCE NO. 2016-M-_____

**AN ORDINANCE AMENDING CHAPTER 15.28 “FIRE PREVENTION CODE”
OF THE ST. CHARLES MUNICIPAL CODE**

WHEREAS, not less than One (1) copy of: (a) the 2015 International Fire Code, published May 2014 by International Code Council, Inc., 4051 West Flossmoor Road, Country Club Hills, IL 60478 and (b) the NFPA 101 Life Safety Code, 2015 edition, published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02169-7471, have been and are on file in the Office of the Clerk of the City of St. Charles, Illinois for more than thirty (30) days prior to the passage and approval of this Ordinance; and

WHEREAS, the City of St. Charles has provided notice to the Illinois Building Commission regarding proposed changes to regulations regarding construction related activities within the City of St. Charles, as provided by 20 ILCS 3918/55; and

WHEREAS, the City Council finds it to be in the interest of the City of St. Charles to periodically update codes regulating buildings and structures.

NOW THEREFORE, BE IT ORDAINED by the City Council of the City of St. Charles, Kane and DuPage Counties, Illinois as follows:

SECTION ONE: That Title 15, “Buildings and Construction”, Chapter 15.28 “Fire Prevention Code” of the St. Charles Municipal Code be and is hereby amended by deleting it in its entirety and by substituting the following therefor:

15.28.010 Fire Prevention Code, Life Safety Code - adopted - modifications.

The provisions of a) the ICC International Fire Code 2015 edition, with the following Appendices,

- Appendix B – Fire Flow Requirements for Buildings
- Appendix C – Fire Hydrant Locations and Distribution
- Appendix D – Fire Apparatus Access Roads

as published by the International Code Council, Inc. 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, and b) the NFPA 101 Life Safety Code, 2015 edition, published by the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts 02269-9101, are hereby adopted by reference as if fully set forth herein, together with the amendments listed herein, for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion. These codes and amendments thereto shall be known as the “City of St. Charles Fire Prevention Code.”

15.28.020 Bureau of Fire Prevention – Establishment & Duties.

- A. The Fire Prevention Code shall be enforced by the Bureau of Fire Prevention in the department of the City, which is established and which shall operate under the supervision of the Chief of the Fire Department.
- B. The person in charge of the Bureau of Fire Prevention shall be designated by and serve at the pleasure of the Chief of the St. Charles Fire Department.
- C. The Chief of the Fire Department may detail such members of the Fire Department as inspectors as shall from time to time be necessary.
- D. The Chief of the Fire Department shall recommend any amendments to the Code, which, in his judgment, shall be desirable.

15.28.030 Definitions.

- A. Wherever the words “Fire Prevention Code” or “Code” are used, they shall be held to mean the City of St. Charles, Illinois, Fire Prevention Code.
- B. Wherever the word “Municipality” is used in the Fire Prevention Code, it shall be held to mean the City of St. Charles, Illinois.
- C. Wherever the term “Corporation Counsel” is used in the Fire Prevention Code, it shall be held to mean the City Attorney for the City of St. Charles, Illinois.
- D. Wherever the term “Fire Officials,” “Fire Inspector,” “Inspector,” “Code Official,” “Authority Having Jurisdiction,” or “Fire Marshal” is used, it shall be held to mean the Chief of the St. Charles Fire Department or his designee.
- E. Wherever the term “Bureau of Fire Prevention” is used, it shall be held to mean the Bureau of Fire Prevention of the City of St. Charles, Illinois.

15.28.040 Limits for the storage, handling, processing, manufacturing and transportation of flammable, hazardous or toxic chemicals, liquids and gases.

- A. Prohibited Storage of Explosives and Blasting Agents. The storage, handling and use of explosives and blasting agents are hereby prohibited.
- B. Prohibited Storage of Flammable and Combustible Liquids. The storage of flammable and combustible liquids in outside, above-ground tanks is hereby restricted as follows: As approved by the Fire Prevention Code by the City of St. Charles, Illinois 60174. See F-2306.2.3.
- C. Prohibited Storage and Manufacturing of Fireworks. The manufacture, sale, handling, use or storage of fireworks is prohibited within the corporate limit of the City of St. Charles. See F-5601.2, Explosives & Fireworks.
- D. Restricted Bulk Storage of Liquefied Petroleum Gases. The bulk storage of liquefied petroleum gases in excess of 1000 gallons of water capacity is hereby prohibited.
- E. Motor Vehicle Routes for Transporting Hazardous Chemicals and Other Dangerous Articles Including Liquefied Petroleum Gases and Combustible and Flammable Liquids. Routes for vehicles transporting hazardous chemicals and other dangerous articles including combustible and flammable liquids are hereby established as follows:

1. Routes approved by the state or federal governments.
2. No tank vehicles shall be parked for over one hour or left unattended at any time.

15.28.50 Amendments to the ICC International Fire Prevention Code 2015.

1. Amend Section 101.1 to read as follows:

101.1 Title. These regulations shall be known as the *Fire Code* of “City of St. Charles, Kane and DuPage Counties, Illinois.”, hereinafter referred to as “this code”

2. Amend 308.3 as follows

Under exception #1 delete item 1.2

3. Add Section 319 as follows:

319 Miscellaneous Provisions

319.1 Tenant Separation. Each tenant space shall be separated from other tenant spaces and corridors by walls, partitions, and floor-ceiling assemblies having at least a one- (1) hour approved fire resistance rating.

4. Add Sections 506.3 as follows:

506.3 Location. The installation of the approved key box shall be approved by the Authority Having Jurisdiction. The box shall be located not more than six (6’) feet above grade. The key box may be supervised by a tamper switch.

5. Add Sections 507.5.1.2, 507.1.3 & 507.1.4

507.5.1.2 Hydrants shall be located approximately ten (10) feet from an all-weather roadway. If this cannot be done, the closest part of the hydrant shall be set back at least five (5) feet from the curb line.

507.5.1.3 Access to fire hydrants shall be all-weather roadways adequate in width, clearance and strength for fire fighting purposes. Such routes, including private roadways, shall be maintained accessible during all seasons of the year. Legal provisions will be required for private roads.

507.5.1.4 Fire hydrants shall meet the requirements of the City of St. Charles and the standards of the American Water Works

Association, and shall have two (2) two and one-half (2½) inch outlets and one (1) four and one-half (4½) inch outlet with auxiliary gate valves on the hydrant branch line. Threads shall be American National Standard. Pumper outlets shall face roadways.

6. Add Section 605.13 as follows:

605.13 Service Disconnects. Service disconnecting means shall be provided either outside the building or via a key operated remote control, located at the fire alarm control panel or other approved location, and shall have provisions to allow the service to be locked open. Each building/tenant space shall have a main disconnect incorporated within the main distribution panel inside the space.

7. Amend Section 901.6.2

901.6.2 Records. Records of all systems inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years and shall be copied to the *fire code official* upon request.

8. Amend Section 901.7

901.7 System out of service. Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service. Fire protection systems shall not be out of service for more than twenty-four (24) hours for maintenance or repairs. Where utilized, fire watches shall be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

9. Delete the provisions in Section 903.2 “Automatic Sprinkler Systems – Where Required” inclusive of subsections 903.2.1, 903.2.2, 903.2.3, 903.2.4, 903.2.6, 903.2.7, 903.2.9 and 903.2.10 and substitute the following therefore:

903.2 Where required. Notwithstanding any language to the contrary, that is contained elsewhere in this code, an approved automatic sprinkler system installed in accordance with the provisions of all applicable codes and standards shall be provided and maintained in full operating condition throughout every story and basement of all Use Groups as listed in section 302.1 of the *International Building Code*.

Exceptions:

1. Structures not considered to be habitable or occupiable of less than 5000 square feet, with a low fire or life hazard risk and located not less than 30 feet from another structure. Buildings of this type would normally be classified within the Utility and Miscellaneous Group U as described in section 312 of the *International Building Code*, Provided:
 - a. The structure is continually monitored by an approved automatic fire alarm system.
2. Open Parking Garages

The requirements, contained in these exceptions, shall be subject to modifications by the authority having jurisdiction to compensate for particular building conditions to meet the intention of the code

10. Amend Section 903.6 and add 903.6.1 as follows:

903.6.1 Change of use classification. Notwithstanding any language to the contrary contained elsewhere in the codes adopted, an automatic sprinkler system shall be provided throughout a building, when the use classification of the building or a space within the building changes, provided one of the following conditions exists:

1. If the new or proposed use is more hazardous, based on life and fire risk, than the existing use. (see table 903.6.1)

This requirement shall be subject to modifications by the authority having jurisdiction to compensate for particular building conditions.

**Hazard Category
Table 903.6.1**

Relative Hazard	Occupancy Classifications
1 (highest hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (lowest hazard)	F-2, S-2, U

11. Delete the provisions of Section 907.2 “Where required” including the exceptions and substitute the following therefore:

907.2 Where required. An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with 907.5, unless other requirements are provided by another section of this code. Notwithstanding any provision of Section 907 and its subsections to the contrary, an approved manual fire alarm signaling system that activates the occupant notification system in accordance with Section 907.5, shall be installed and maintained in all buildings over one (1) story in height or over 1,000 square feet.

12. Delete the provisions of Section 907.9 “Where required in existing buildings and structures” and substitute the following therefore:

907.9 Where required in existing buildings and structures. An approved fire alarm system shall be installed in existing buildings and structures where required in chapter 11. Notwithstanding any provision of Section 907, Section 1103.7 or their ~~and its~~ subsections to the contrary, an approved manual fire alarm signaling system that activates the occupant notification system in accordance with Section 907.5, shall be installed and maintained in all buildings over one (1) story in height or over 1,000 square feet.

13. Delete the provisions of Section 907.6.6.1 “automatic telephone-dialing devices”.

14. Amend the provisions of Section 912.1 “Installation” and substitute the following therefore:

912.1 Installation. The type (Siamese, Storz) and size of the fire department connection shall be in accordance with the NFPA standard applicable to the system design, shall comply with Sections 912.2 through 912.7 and be subject to approval of the Fire Department. Generally, a 5-inch size, Storz type connection with a 30 degree downturn is required

15. Delete exception #2 to section 914.6.1

16. Amend item #5 and add items 6 & 7 to Section 1008.3.3 “Rooms and Spaces” as follows:

5. All restrooms
6. In all rooms and spaces over 1,000 square feet in area with an occupancy load of 20 or more.
7. All occupiable mechanical rooms

17. Amend Table 1020.1 to read as follows:

**Table 1020.1
Corridor Fire Resistance Rating**

Occupancy	Occupant Load Served by Corridor	Required Fire-Resistance Rating (hours)	
		Without Sprinkler System	With Sprinkler System (c)
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, E, F, M, S, U	Greater than 30	Not Permitted	1
R	Greater than 10	Not Permitted	1
I-2 (a), I-4	All	Not Permitted	1
I-1, I-3	All	Not Permitted	1 (b)
B	Greater than 30	Not Permitted	1 (d)

(a) For requirements for occupancies in Group I-2, see Section 407.3
 (b) For a reduction in the fire-resistance rating of occupancies in Group I-3, see Section 408.7.
 (c) Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
 (d) Glass permitted in wall

18. Amend Section 2306.2.2 “Above-ground tanks located inside buildings” to read as follows:

2306.2.2 Above-ground tanks located inside buildings. Above-ground tanks for the storage of Class I, II and IIIA liquid fuels are not allowed to be located in buildings.

19. Amend Section 2306.2.3 “Above-ground tanks located outside” to read as follows:

2306.2.3 Above-ground tanks located outside, above grade. The storage of flammable or combustible liquids in outside above-ground tanks is prohibited within the corporate limits of the City of St. Charles, Illinois, except by Special Permit issued by the Fire Chief. Compliance with the following criteria is required for the issuance of a Special Use Permit for such use:

1. Above ground tanks used for outside, above-grade storage of Class I liquids shall be listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 34 57. Such tanks shall be located in accordance with Table 2306.2.3.
2. Above-ground tanks used for outside, above-grade storage of Class II or IIIA liquids shall be listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 57. Tank locations shall be in accordance with Table 2306.2.3.

Exception: Other above-ground tanks that comply with Chapter 57 where approved by the *Fire Code Official*.

3. Tanks containing fuels shall not exceed 1000 gallons in individual capacity or 1000 gallons in aggregate capacity. Installations with the maximum allowable aggregate capacity shall be separated from other such installations by not less than 100 feet.
4. Tanks located at farms, construction projects, or rural areas shall comply with Section 5706.2.
5. Above-ground tanks used for outside, above-grade storage of Class IIIB liquid motor fuel shall be listed and labeled in accordance with UL 142 or listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 57. Tank locations shall be in accordance with Table 2306.2.3.
6. Above-ground tanks shall not be used for the outside storage of motor fuels at automotive service stations.
7. A site plan for the installation of the aboveground tank shall be submitted to the Fire Official showing all buildings and structures on the same parcel.
8. At least 2 (two) fire hydrants shall be provided, with an average spacing of 300 feet. 1 (one) of the required fire hydrants shall be within 300 feet of the aboveground tank.
 - a. The minimum fire flow for each hydrant shall be 2000 GPM for a 2 hour duration.
9. The aboveground tank shall be protected with physical barriers per Section 312.2.
10. Aboveground storage tank(s) shall not be for use by the general public nor shall any liquid contained in an aboveground tank be transferred into any type vessel or device to be used or controlled by the general public. Mobile fueling shall not be allowed unless approved by the Fire Code Official and all requirements from the Office of the State Fire Marshall have been met.
11. No liquid shall be stored in an aboveground tank that has a flash point less than that of gasoline or -36 to -45 degrees F.
12. An automatic shutoff device capable of stopping the delivery of fuel into a storage tank at 90% of the tank capacity shall be provided.
13. Tank contents must be transferred by means of fixed pumps only. Pumps must be designed and equipped so as to prevent accidental discharge.
14. All tank openings associated with piping, vents, and inspections, shall be through the top of the tank only.
15. Approved anti-siphon devices shall be installed at each connection of the piping to the tank when such piping extends below the level of the top of the tank.
16. U.L. listed, portable ABC type fire extinguisher(s) shall be provided.
17. No parking is allowed within 50 feet of an aboveground tank.
18. All aboveground tank plans must include the following:
 - a. Site plans as mentioned above.

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- b. Aboveground tank details including all piping systems, pump and transfer systems, manufacturer's tank specifications, and all site protection, safety equipment, and safety signage per NFPA 704.
- c. The aboveground tank requires a City of St. Charles Building Permit, and 4 (four) sets of plans and specifications are required.
- d. Approval for all aboveground tank installations shall be by the Fire Code Official, The Office of the State Fire Marshal and the Building Official.

TABLE 2306.2.3
 MINIMUM SEPARATION REQUIREMENTS FOR ABOVE-GROUND TANKS

CLASS OF LIQUID AND TANK TYPE	INDIVIDUAL TANK CAPACITY (gallons)	MINIMUM DISTANCE FROM NEAREST IMPORTANT BUILDING ON SAME PROPERTY (feet)	MINIMUM DISTANCE FROM NEAREST FUEL DISPENSER (feet)	MINIMUM DISTANCE FROM LOT LINE WHICH IS OR CAN BE BUILT UPON, INCLUDING THE OPPOSITE SIDE OF A PUBLIC WAY (feet)	MINIMUM DISTANCE FROM NEAREST SIDE OF ANY PUBLIC WAY (feet)	MINIMUM DISTANCE BETWEEN TANKS (feet)
Class I protected above-ground tanks or tanks in vaults	1000	15	25 ^a	25	15	3
Class II and III protected above-ground tanks or tanks in vaults	Same as Class I	Same as Class I	Same as Class I	Same as Class I	Same as Class I	Same as Class I
Other tanks	All	50	50	100	50	3

For SI: 1 foot = 304.8 mm, 1 gallon – 3.785 L.

a. At fleet vehicle motor fuel-dispensing facilities, no minimum separation distance is required

20. Amend Section 5003.1 "Scope" to read as follows:

5003.1 Scope. The storage, use and handling of all hazardous materials shall be in accordance with this Section and Exhibit A.

21. Add Section 5601.2 "Permit required" to read as follows:

5601.2 Permit required. Permits shall be required as set forth in Section 105.6 and regulated in accordance with this section. An application for permit, on a form developed by the Fire Official, shall be made in writing at least Sixty (60) days in advance of the display of fireworks or discharge of explosives.

22. Amend Section 5705.1 "Scope" to read as follows:

5705.1 Scope. Dispensing, use, mixing and handling of flammable liquids shall be in accordance with Section 5703 and this Section. Tank vehicle and tank car loading and unloading and other special operations shall be in accordance with Section 5706. Flammable or combustible liquids shall not be dispensed by gravity from tanks, drums, barrels or similar containers. Approved pumps that take suction from the top of the container shall be used. Unattended dispensing operations by the general public shall be prohibited. Mobile fueling shall not be allowed unless approved by the Fire Code Official and all requirements from the Office of the State Fire Marshall have been met. No tank vehicle shall be left unattended on any lot, street, highway, avenue, alley, or any other location, public or private.

Exception:

1. Containers of organic coatings having no fire point and which are opened for pigmentation are not required to comply with this Section.

23. Add section 6101.4. "Storage Prohibited/Permit Required" to read as follows:

6101.4 Storage Prohibited/Permit Required. Aboveground storage of liquefied petroleum gas utilizing one or more containers having a total capacity of over 1,000 gallons water capacity shall be prohibited.

24. Add section 6101.5 to read as follows:

6101.5 Parking Restrictions. No tank vehicle shall be left unattended on any lot, street, highway, avenue, alley or any other location, public or private.

25. Add Exhibit A:

Exhibit A

Performance Guidelines for High Hazard Uses in the City of St. Charles

1. Specific location: The geographic location and distances to other structures, rivers, streams, and other use groups.
2. Zoning: The proximate distances to assembly, educational, institutional, and residential uses and vacant land zoned for these uses.
3. Types of hazardous materials which are not allowed: Materials listed in Section 307.3 High Hazard Group H-1 that present a detonation hazard shall not be permitted under any circumstances.
4. Allowable construction types: Type I and II only.
5. Required fire protection for High Hazard materials:
 - a. Provide extra hazard Group II fire sprinkler system
 - b. Provide a fixed foam fire protection system
6. Required water supply system: 3,000 to 6,000 gallons per minute from a reliable source.

15.28.060 Emergency Conditions.

In case there shall be, in the opinion of the Fire Official, actual and immediate danger to life and property from the hazards of fire and explosion arising from the storage, handling, or use of hazardous substances, materials, or devices, or from conditions hazardous to life and property in the use or occupancy of buildings or premises, the Fire Official shall employ such labor and machinery, equipment and devices and cause the necessary work to be done to render said occupants or property temporarily safe, whether the procedure prescribed in this section has been instituted or not.

- A. Where practical and time constraints permit, the owner, occupant or other person responsible for the emergency condition shall be notified of the emergency condition, in writing, and shall have the option of making the condition safe.
- B. The owner and occupants of the premises shall be jointly and severally liable for any costs incurred in connection with the same.
- C. The Fire Official of the City of St. Charles, Illinois, shall cause proper action to be instituted against the owner of the premises, and the occupants if different than the owners, for the recovery of costs incurred by the City of St. Charles, Illinois, in the performance of the emergency work.
- D. For the purposes of this Article, the following words and phrases shall have the meanings respectively ascribed to them:
 - a. "Hazardous Substance" or "Hazardous Material" means any substance or material or mixture of substances which is toxic, corrosive, an irritant, strong sensitizer, radioactive, flammable, combustible, or which generates pressure through decomposition, heat or other means and which may cause injury, or illness to humans, domestic livestock, or wildlife or as defined by the Illinois Environmental Protection Act or any federal law.

- b. "Hazardous material Incident" means an incident which threatens public health or safety involving the actual or potential release of a hazardous substance or hazardous material.
- c. "Toxic" means any substance (other than a radioactive substance) which has the capacity to produce bodily injury or illness to man through ingestion, inhalation, or absorption through any body surface.
- d. "Corrosive" means any substance which, in contact with living tissue, causes destruction of tissue by chemical action, but does not refer to action or inanimate surfaces.
- e. "Irritant" means any substance, no corrosive, which, on immediate, prolonged or repeated contact with normal living tissue, will induce local inflammatory reaction.
- f. "Strong Sensitizer" means any substance with will cause on normal living tissue through an allergic or photo dynamic process, a hypersensitivity of the same substance.
- g. "Radioactive" means any substance which emits ionizing radiation.
- h. "Flammable" means any substance which has a flash point of less than 100 degrees Fahrenheit.
- i. "Combustible" means substance with a flash point greater than 100 degrees Fahrenheit.
- j. "Person" shall mean any individual, partnership, corporation, trust, firm, company, estate, association, or other legal entity.

Control of Hazardous Substances or Hazardous Materials:

- a. It shall be unlawful for any person to use, store, deliver or transport hazardous substances or hazardous materials, or cause the use, storage, delivery of transporting of hazardous substances or hazardous materials in any manner inconsistent with the requirements of the Fire Prevention Code of the City of St. Charles or any other applicable City ordinance, County ordinance, State law or Federal law.
- b. It shall be unlawful for any motor vehicle carrying, transporting or containing a hazardous substance or hazardous material to park or stand, other than temporarily for the purpose of, and while actually engaging in, loading or unloading, on private property, without the knowledge and express consent of the person who is in charge of the property and who is aware of the nature of the hazardous substance or hazardous material the motor vehicle contains.

c. It shall be unlawful for any person using, storing, manufacturing, producing, disposing, treating, transporting or causing the use, storage, manufacture, production, disposal, treatment or transportation of any hazardous substance or hazardous material in any manner which results in a hazardous materials incident.

Hazardous Materials or Hazardous Substance Incident Expense Recovery:

a. Any person causing or permitting a hazardous material incident shall be responsible for all of the following:

- 1) Reimbursement in full, of any and all costs incurred by the CITY in connection with the operation (including equipment and vehicles), maintenance, and staffing required to respond to such hazardous materials incident. Vehicles and staffing will be charged the hourly rate of pay, including overtime expenses and overhead costs, for each employee who participates in such response to a hazardous materials incident. Any maintenance costs incurred by the CITY will be reimbursed at the rate of time and materials.
- 2) Reimbursement, in full, for any and all costs incurred by the CITY for equipment and materials used, damage, lost, spent, destroyed or rendered irreparable in connection with a hazardous materials incident.
- 3) Assumption of, and all liability and costs for, any cleanup or removal resulting from any hazardous material incident, including but not limited to any independent cleanup contractor necessitated by such hazardous material incident.
- 4) Any and all costs and reasonable attorney's fees incurred in connection with the enforcement of the Ordinance and any collection undertaken hereunder.

b. The City of St. Charles shall prepare and forward to the person or persons causing or permitting a hazardous material incident a bill for the total costs and expenses incurred for which such person or persons are responsible pursuant to this Section; provided, however, any costs in connection with any independent cleanup contractor shall be billed directly by such contractor. Payment of the total bill shall be made within thirty (30) days of receipt. Any bill or portion of a bill remaining unpaid after thirty (30) days of receipt shall accrue interest on the unpaid balance at the rate of 1 ½% per month, or fraction of month.

Limitation of Liability: The City, its officers, agents or employees, shall not have any liability or responsibility for any claim, injury, or damage of any kind

resulting from a hazardous material incident to which the City or any of its departments, officers, agents or employees responds.

Invalidity: Should any clause, sentence, paragraph or part of this Ordinance be declared a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the Ordinance as a whole or any part thereof, other than the part so declared to be invalid.

15.28.070 New materials, processes or occupancies requiring permits.

The Building Official, the Chief of the Fire Department, and the Chief of the Bureau of Fire Prevention shall act as a committee to determine and specify, after giving affected persons an opportunity to be heard, any new materials, processes or occupancies, which shall require permits, in addition to those now enumerated in the Fire Prevention Code. The Chief of the Bureau of Fire Prevention shall post such list in a conspicuous place in his office, and distribute copies thereof to interested persons.

(Ord. 2004-M-76 § 1; Ord. 1978-M-37 Art. 5 (F).)

15.28.080 Violation - Penalty.

Any violations of this Chapter shall be enforced and prosecuted in accordance with the provisions of Chapter 15.101 of the St. Charles Municipal code. The Chief of the Fire Department shall have all of the rights and responsibilities given to the Building Official under Chapter 15.101 for the prosecution and enforcement of any violations under this chapter.

(Ord. 2004-M-76 § 1; Ord. 1978-M-37 Art. 5 (G).)

15.28.090 - FIRE ALARM SYSTEMS

- A. Purpose and Intent - The ordinance codified in this chapter is adopted for the purpose of regulating and permitting fire alarm systems to which the fire department is expected to respond and to supplement the provisions of the ICC International Fire Prevention Code, 2015 edition and the NFPA 101 Life Safety Code, 2015 edition as previously adopted.

- B. Applicability - The provisions of this chapter shall apply to all fire alarm systems used and operated within the jurisdiction of the St. Charles Fire Department.
 - i. The provisions of this article shall not apply to any electric, wired, or battery operated, single station smoke detectors installed to alert the occupants of any single-family residence to the danger of a fire.
 - ii. For the purpose of supplementing the provisions contained in this article, the City Council hereby adopts NFPA 72 - National Fire Alarm code, as referenced in the adopted Fire Prevention Code, published by the National Fire Protection Association.

C. Permit Required

- i. It is unlawful for any person, firm, partnership, corporation or other entity to use, own or lease a fire alarm system or to be in control of a protected premise, wherein an alarm system is operated or maintained without having first obtained a permit as provided in this chapter.
- ii. It is unlawful for any person, firm, partnership, corporation or other legal entity to use, own or lease an alarm system or to be in control of a protected premises wherein an alarm system is operated or maintained when a permit therefore has been revoked.
- iii. A permit must be obtained for each separately addressed operating location.
- iv. No fee shall be charged to obtain an alarm user permit.
- v. All permits issued are valid indefinitely unless revoked.

D. Permit Application -For every new fire alarm system and any time there is a change in the information required by this section, every fire alarm user shall file a completed or amended application for a fire alarm permit with the Fire Department for review and approval.

- i. Each applicant for a permit to maintain a fire alarm system shall file a written application with the Fire Department stating:
 - a. The full legal name, address and telephone number of the applicant.
 - b. The name, address and telephone number of the proposed protected premises where the fire alarm is located.
 - c. Any fire alarm system designed to transmit a signal to a fire alarm monitoring agency shall include the name, address, and telephone number of said agency.
 - d. The type of fire alarm system at the protected premises.
 - e. A list of three persons, including their addresses and telephone numbers, who can be contacted and will respond to the protected premises in the event of an emergency or to reset or deactivate the fire alarm system, or who could contact the alarm user if the alarm user is not at the protected premises.
 - f. The name, address, and telephone number of the fire alarm company that installed the fire alarm.
 - g. The name, address, and telephone number of the fire alarm company that is responsible for the maintenance and repair of the fire alarm system, if applicable.
- ii. Incomplete applications shall be returned to the applicant:
 - a. A permit will not be issued until the completed application is received and the Fire Chief or his designate has granted approval for the permit.
- iii. An application for an alarm user permit shall be denied if:

- a. The applicant has failed to pay false fire alarm fees required by this ordinance for a different protected premises under the applicant's ownership or control.
 - b. The applicant has failed to comply with any provisions of this ordinance or other ordinances of the city.
 - iv. The Fire Chief or his designate shall be responsible for processing and issuing alarm user permits.
 - v. It shall be unlawful for any alarm user to fail or refuse to amend its alarm user permit application within 14 days after any of the information required and obtained therein becomes outdated or inaccurate.
- E. Alarm Activation at a Protected Premises Where an Alarm User Permit has not Been Issued -Each notice to the Tri-Com Communications Center or the Fire Department of an activation of a fire alarm system at the protected premises protected by a fire alarm which is not permitted shall be considered a separate violation of this chapter and any alarm user who does not have a valid fire alarm user permit will be assessed a fine in the amount of \$300.
- F. Transfer of Alarm User Permit Prohibited - A fire alarm user permit cannot be transferred to another premises or to another person.
- G. False Alarms Prohibited - It shall be unlawful for any person to start or spread any false alarm of fire or to knowingly activate a fire alarm system for the purpose of summoning the Fire Department except if such person knows or suspects that there is an actual emergency or fire condition on the premises.
- H. False Alarms - Fines – Notifications - A response fee shall be imposed to all fire alarm users to reimburse the Fire Department for the increased costs associated with responding to excess false fire alarms from any fire alarm system at a single protected location.
1. Any alarm user who has more than three (3) false fire alarms within a calendar year at a single protected location will be assessed fines according to the following fine schedule:
 - a. Four to five false fire alarms: \$50 fine per false fire alarm
 - b. Six to ten false fire alarms: \$100 fine per false fire alarm
 - c. More than ten false fire alarms: \$300 fine per false fire alarm
 2. After the third recorded false alarm within any calendar year for any alarmed premises, the Fire Chief or his designee shall send an invoice for response fees to the fire alarm user. Such invoice shall be sent by postage paid U.S. mail or personally delivered to the user of the alarmed premises where the false fire alarm(s) occurred.
 3. Any individual, firm, partnership, corporation, association, organization, company or other entity in control of a protected premises where an alarm system is located accused of a violation of this article may settle and

compromise the claim or violation by paying the invoice for response fees to the City, within thirty (30) days of after it is mailed. Payment of such claim or claims shall be made at the Finance Department of the City. In the event such claim or claims are not paid within thirty (30) days, or if the alarm user otherwise contests the validity of the claim, a complaint or notice to appear in court may be issued for the alleged violation.

4. The alarm user shall have the opportunity, within fourteen (14) days from the date of mailing or personal delivery, to submit a written request or meet with the Fire Chief for the purpose of showing cause as to whether circumstances exist to warrant voiding the invoice for response fees due false fire alarm activations. The Fire Chief shall review the alarm user's report and/or meet with the alarm user and issue a written finding to the alarm user as to whether or not the invoice for response fees due false fire alarm activations will be voided. The finding of the Fire Chief shall be final.
5. Any fire alarm user that exceeds the level of ten (10) false fire alarms per calendar year shall be required to enroll in the Underwriters Laboratory (UL) fire alarm certificate program. Such certificated users shall be subject to the UL random system inspections. Enrollment in this program would cease when the fire alarm user has demonstrated to the Fire Chief or his designate that the fire alarm system no longer transmits false fire alarms on a recurring basis.

I. False Fire Alarm Determinations

- i. There shall be a presumption that a fire alarm activation was a false fire alarm where the Fire Chief or his designee determines that;
 - a. There is no evidence of a fire or other smoke, heat, or noxious fume condition on the protected premises that would warrant a call for immediate response from the Fire Department.
 - b. There is no evidence that extraordinary weather conditions, electrical power failures, transmission line malfunctions or other circumstances beyond the control of the alarm user caused the activation of the fire alarm.
- ii. Whenever a new fire alarm system is installed, no fire alarm activation from such an alarmed premises shall be deemed to be a false fire alarm within the meaning of this chapter for a period not to exceed thirty (30) days after the approved installation of said fire alarm system.

- J. Testing Equipment - No person shall conduct or cause to be conducted, any test or demonstration of any fire alarm system or signaling device which causes the Fire Department to be dispatched. All systems shall be put in "test" with the pertinent central station prior to testing and be placed back in service after the testing or work has been

completed. Any test, which is not preceded immediately by notification to the pertinent central station, shall be deemed a false fire alarm as defined by this chapter.

- K. No Liability of City - The city assumes no liability for any defects in the operation of any fire alarm system or signal line system for any failure or neglect of any person associated with the installation or maintenance of any fire alarm system, for any failure or neglect of any alarm user, for the transmission or receipt of fire alarm signals, or any failure or neglect to respond upon receipt of an fire alarm from any source. In the event that the city finds it necessary to allow for the disconnection of any fire alarm system, the city shall have no liability for such action. No special duty other than that owed to the general public shall be created by virtue of this ordinance or by virtue of the issuance of a fire alarm system permit or receipt of alarm signals by the Tri-Com Communications Center.
- L. Severability - If any provision, clause, sentence, paragraph, section or part of this chapter or application thereof to any person or circumstance, shall for any reason be adjudged by a court of competent jurisdiction to be unconstitutional or invalid, said judgment shall not affect, impair, or invalidate the remainder of this chapter in the application of such provision to other persons or circumstances but shall be confined in its operation to the provision, clause, sentence, paragraph, section, or part thereof directly involved in the controversy in which such judgment shall have been rendered and to the person or circumstance involved. It is hereby declared to be the legislative intent of the City Council that this chapter would have been adopted had such unconstitutional or invalid provisions, clause, sentence, paragraph, section, or part thereof not been included.
- M. Penalty for Violation - Any person, firm, or corporation violating any provisions of this Section are subject to specific fines established in this Section, or as otherwise provided in this code. Each day during which a violation in this section continues or is permitted to exist shall be considered a separate and distinct offense.

SECTION TWO: That after the adoption and approval hereof this Ordinance shall be printed or published in book or pamphlet form, published by the authority of the City Council.

SECTION THREE: That this Ordinance shall be in full force and effect on _____, 2016.

Presented to the City Council of the City of St. Charles, Illinois this ____ day of _____, 2016.

Passed by the City Council of the City of St. Charles, Illinois this _____ day of _____, 2016.

Ordinance No. _____
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Approved by the Mayor of the City of St. Charles, Illinois this _____ day of _____, 2016.

Mayor

Attest:

City Clerk

Council Vote:
Ayes: _____
Nays: _____
Abstain: _____
Absent: _____

Approved as to Form:

City Attorney

Date: _____

City of St. Charles

Ordinance No. _____

An Ordinance Amending Chapter 15.04 “Building Code”, Section 15.04.020 "One-Family and Two-Family Residences-Regulations Adopted and Modified" of the St. Charles Municipal Code

WHEREAS, the standard code known as 2015 International Building Code, has been updated by the International code Council Inc.: and

WHEREAS, not less than one (1) copy of the 2015 International Residential Code for One and Two Family Dwellings, published February 2015 by International Code Council, Inc., 4051 West Flossmoor Road, Country Club Hills, IL 60478 have been and are on file in the Office of the Clerk of the City of St. Charles, Illinois for more than thirty (30) days prior to the passage and approval of this Ordinance; and

WHEREAS, the Building Official has provided notice to the Illinois Building Commission regarding proposed changes to regulations regarding construction related activities within the City of St. Charles, as provided by 20 ILCS 3918/55; and

WHEREAS, the City Council finds it to be in the interest of City of St. Charles to periodically update codes regulating buildings and structures.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of St. Charles, Kane and DuPage Counties, Illinois as follows:

SECTION ONE: That Title 15, “Buildings and Construction”, Chapter 15.04 “Building Code” of the St. Charles Municipal Code be and is hereby amended by deleting the provisions of Section 15.04.020 entitled “One-family and two-family residences--Regulations adopted and modified” and by substituting the following therefor:

“15.04.020 One family and two family residences – regulations adopted and modified.

The provisions of the 2015 International Residential Code for One and Two Family Dwellings, published February 2015 by the International Code Council, Inc., 4051 West Flossmoor Road, Country Club Hills, IL 60478 (hereinafter sometimes referred to as “the IRC”), not less than one (1) copy of which have been and are on file in the Office of the Clerk of the City of St. Charles, Illinois for more than thirty (30) days, together with the amendments listed herein, are hereby adopted as the regulations governing the construction of one and two family dwellings and townhouses not more than three stories in height.

Amendments to the 2015 International Residential Code for One and Two Family Dwellings:

Chapter 1 – Administration:

- A. **Section R101.2 Scope:** Revise to read as follows:
- “**R101.2 Scope.** The provisions of the International Residential Code for One and Two Family Dwellings shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal, and demolition of detached one and two family dwellings not more than three stories in height with a separate means of egress and their accessory structures.”
- B. **Section R105.2 Work exempt from permit:** Delete this section.
- C. **Section R105.2.3 Public service agencies:** Delete this section.
- D. **Section R105.5 Expiration:** Revise to read as follows:
- “**R105.5 Expiration.** Every permit, except demolition permits, shall become invalid or void unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Demolition must commence within ten (10) days and completed within thirty (30) days of issuance, otherwise the permit becomes invalid. The Building Official is authorized to grant, in writing, one or more extensions of time, for any permits, for a period not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.”
- E. **Section R105.7 Placement of permit:** Revise to read as follows:
- “**R105.7 Placement of permit.** The building permit card shall be kept on the site of the work and be visible from the street until such time as a certificate of occupancy permit has been issued, or a final inspection has been performed.”
- F. **Section R106.1.4 Information for construction in flood hazardous areas:** Revise to read as follows:
- “**R106.1.4 Information for construction in flood hazardous areas.** For buildings and structures in flood hazard areas, as established on local floodway rate maps, locally adopted flood plain ordinances shall apply.”

- G. **Section R106.3.1 Approval of construction documents:** Revise to read as follows:

“R106.3.1 Approval of construction documents. When the Building Official issues a permit, the construction documents shall be approved in writing or by stamp. One set of the approved construction documents as reviewed shall be retained by the Building Official. The other set shall be returned to the applicant and shall be kept on the site of the project and shall be open to inspection by the Building Official or his or her authorized agent/representative.”

- H. **Section R106.3.4 Pre-Application conference:** Add a new section to read as follows:

“R106.3.4 Pre-Application conference. All applicants and owners seeking demolition permits for principal buildings on a lot or site shall first be required to attend a pre-application conference with the Building Official and other city staff as directed, for the purpose of discussing the City of St. Charles requirements for demolition and reconstruction.”

- I. **Section R109.1.3 Flood plain inspection:** Delete this section.
- J. **Section R110.1 Use and occupancy:** Delete the exceptions.
- K. **Section R110.3 Certificate issued:** Delete lines 3, 5, 7, 8, and 9.

Chapter 2 – Definitions:

- A. **Change the stated term MANUFACTURED HOME to MANUFACTURED/MOBILE HOME.**
- B. **Delete the stated definition of Townhouse and substitute therefore:**

"TOWNHOUSE. A single family dwelling unit constructed in a group of 3, 4, 5 or 6 attached units in which each unit extends from foundation to roof and with open space on at least two sides. Dwelling units where more than six units are attached shall be governed by code provisions applicable to multiple family dwellings, rather than the provisions of this one and two family dwelling code."

Chapter 3 - Building Planning:

- A. **Table R301.2(1) Climatic and Geographic Design Criteria:** Revise to read as follows:

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ground Snow Load	Wind Design				Seismic Design Category	Subject to Damage From			Winter Design Temp	Ice Barrier Underlayment Required	Flood Hazards	Air Freezing Index	Mean Annual Temp
	Speed (mph)	Topographic effects	Special wind region	Wind-borne debris zone		Weathering	Frost line depth	Termite					
30	115	No	No	No	B	Severe	42-Inches	Mod to Heavy	-5F	Yes	Local Ordinance	2000	48.5

See captions under Table R301.2(1) in the book for exceptions and conditions of approvals.

B. **Section R301.2.4 Floodplain construction.** Delete this section.

C. **Section R302.1 Exterior walls:** Delete exceptions 1 & 2.

D. **Section R302.2 Townhouses:** Revise to read as follows:

"**R302.2 Townhouses.** Each townhouse, as defined in this code, shall be constructed as a separate single-family dwelling unit and shall be separated by a minimum of an approved 2-hour UL rated assembly, which shall extend vertically from the foundation to the underside of the roof sheathing and horizontally the full length of the common wall. The number of single family dwelling units attached in this manner shall not exceed six (6)."

E.1 **Section R302.3 Two family dwellings:** Revise to read as follows:

"**R302.3 Two family dwellings.** Dwelling units in two family dwellings shall be constructed with a minimum of an approved 2-hour UL rated assembly between living units. Floor/ceiling assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend from the foundation to the underside of the roof sheathing and shall extend the full length of the common wall."

E.2 **Section R302.3 Two family dwellings:** Delete the exceptions.

F. **Section R302.7 Under stair protection:** Revise to read as follows:

"**R302.7 Under stair protection.** Enclosed accessible space under stairs shall have walls, under stair surfaces, and any soffits, protected on the enclosed side with 5/8-inch type X gypsum board."

G. **Section R303.3 Bathrooms, Exception:** Revise to read as follows:

"**Exception:** The glazed area shall not be required where artificial light and mechanical ventilation systems are provided. The minimum ventilation rates shall be 50 cfm for intermittent ventilation or 20 cfm for continuous ventilation. Ventilation air from the space shall be exhausted directly to the exterior of the structure by means of either the soffit area with an approved connection to the soffit or through the roof with an insulated (R-3) duct and approved roof fitting."

H. **Section R309.1.2 Opening protection:** Add a new section to read as follows:

"**R309.1.2 Opening protection.** Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between

the garage and residence shall be equipped with solid wood doors not less than 1 3/8-inches in thickness, solid or honeycomb core steel doors not less than 1 3/8-inches thick. All such doors shall be equipped with self-closing hinges.”

I. Section R309.2.1 Separation required: Add a new section to read as follows:

“**R309.2.1 Separation required.** The garage shall be separated from the residence and any attic area by not less than 5/8-inch type X gypsum board applied to the garage side and taped with a minimum one coat of approved joint tape and compound. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall be protected by not less than 5/8-inch type X gypsum board with one coat of approved joint tape and compound or equivalent. The garage floor shall be poured a minimum of 4-inches below the top of the foundation to form a gas curb on any wall of the garage abutting the house.”

J. Section R310.1 Emergency escape and rescue required: Revise to read as follows:

“**R310.1 Emergency escape and rescue required.** All basements and sleeping rooms shall have at least one openable emergency escape and/or rescue window or exterior door opening for emergency escape and/or rescue. Where windows are provided as a means of escape and/or rescue, they shall have a sill height of not more than 44-inches above the finished floor. Where a window (s) is provided as a means of egress and/or rescue from a basement or basement bedroom, they shall have a sill height not more than 36-inches above the finished floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section 310.3. The net clear opening dimension required by this section shall be obtained by the normal operation of the window or door opening from the inside. Escape and rescue window openings with a finish sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2 of this Code.”

K. Section R310.2.1 Ladder and steps: Revise to read as follows:

“**R310.2.1 Ladder and steps.** Window wells with a vertical depth greater than 36-inches below the adjacent ground level shall be equipped with a permanently affixed ladder or steps usable with the window in the full open position. Ladders and steps required by this section shall not be required with Section R314 and R315. Ladders or rungs shall have an inside width of at least 12-inches, shall

project at least 3-inches from the wall, and shall be spaced not more than 18-inches on center vertically for the for the full height of the window well.”

L. **Section R-311.2 Egress Door:** Revise to read as follows:

“**R-311.2 Egress Door.** Not less than two (2) exits with a minimum of one (1) exit conforming to this chapter shall be required from each dwelling unit. All such exits shall discharge at grade. The required exit doors shall not pass through a garage.”

M. **Section R311.7.5 Landings for stairways:** Revise to read as follows:

“**R311.7.5 Landings for stairways.** A minimum of 3-foot by 3-foot landing shall be required on each side of an egress door. The floor or landing shall not be more than 1 ½-inches lower than the top of the threshold.

Exception:

1. At the top of a flight of all stairs, provided the door does not swing over the stairs.”

N. **Section R313.1 Townhouse automatic fire sprinkler systems:** Revise to read as follows:

Exception No. 2: The requirement for the installation of automatic fire sprinkler systems in townhouses is deferred until January 1, 2012.

O. **Section R313.2 One- and two-family dwellings automatic fire sprinkler systems:** Revise to read as follows:

Exception No. 2: The requirement for the installation of automatic fire sprinkler systems in one- and two-family dwellings is deferred until January 1, 2012.

P. **Section R311.7.7 Handrails:** Revise to read as follows:

“**R311.7.7 Handrails.** Handrails shall be provided on at least one side of each continuous run of treads or flight with more than three (3) or more risers.”

Q. **Section R314.3 Locations:** Revise to read as follows:

“**R314.3 Locations.** Single and multiple-station smoke alarms shall be installed in the following locations:

- a. In each sleeping room.
- b. Outside of each separate sleeping room or area, within 15-feet of all bedrooms.
- c. On each additional story of the dwelling, including basements and cellars, but not including crawl spaces and uninhabitable attics.
- d. In dwellings or dwelling units with split-levels. For the purpose of this section each split-level shall be considered a story.

When more than one (1) smoke alarm is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the actuation of one (1) alarm will activate all of the alarms in the dwelling unit. The alarm shall be clearly audible in all bedrooms over background noise levels, with all intervening doors closed.

All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning provisions of NFPA 72.”

- R. **Section R317.1.2 Ground contact:** Revise to read as follows:

“R317.1.2 Ground contact. Supports for permanent structures intended for human occupancy and which come in contact with the ground shall not be constructed of wood.”

- S. **Section R317.1.4 Wood columns:** Revise to read as follows:

“R317.1.4 Wood columns. Posts, poles, and columns supporting structures that are embedded in concrete, in direct contact with the earth or are embedded in concrete exposed to the weather are prohibited.”

- T. **Section R322 Flood resistant construction:** Delete this section.

Chapter 4 – Foundations:

- A. **Section R401.1 Application:** Amend to read as follows:

“R401.1 Application. The provisions of this Chapter shall control the design and construction of the foundation and foundation spaces of all buildings and structures.”

- B. **Section R402.1, 402.1.1, 402.1.2:** Delete these sections.

- C. **Section R403.1 General:** Delete the words “wood foundation” within the first sentence.

D. **Section R403.1.1 Minimum size:** Amend to read as follows:

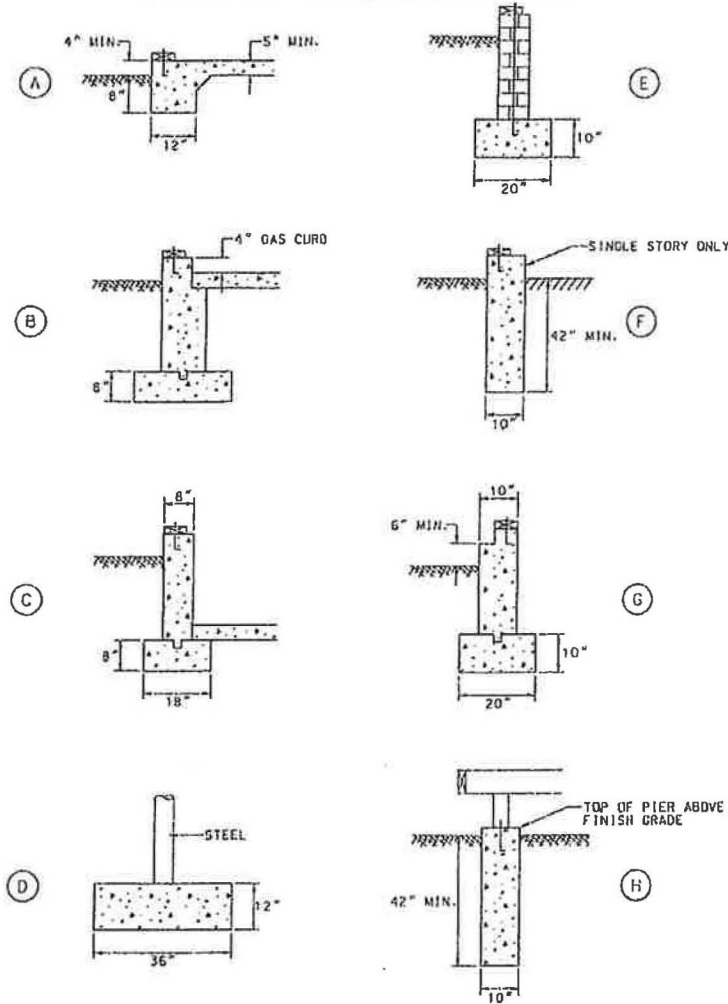
“**R403.1.1 Minimum size.** Minimum sizes for concrete and masonry footings shall be as follows. Footing width shall be a minimum of twice the width of the wall it is supporting, or a minimum of 18-inches, whichever is greater. Unless soil conditions warrant a greater width, or so designed and certified by a license design professional, footing projections shall be equal to $\frac{1}{4}$ the width of the footing and the wall must fit center on the footing. Single story structures may be placed on 10-inch wide by 42-inch deep trench footing. Footing thickness shall be a minimum of 8-inches or the same depth as the wall thickness, whichever is greater, or as designed by a licensed design professional. See Figure R403.1 (1) for an illustration.”

E. **Table R403.1 Minimum width of concrete or masonry footings (inches):**
Delete this table.

F. Figure R403.1 (1) Concrete and masonry foundation details: Delete this figure and substitute the following therefore:

Figure R403.1 (1)

Concrete and Masonry Foundation Details



- A= Typical turned down garage slab.
- B= Typical foundation detail for attached garage with gas curb.
- C= Typical footing and wall detail.
- D= Typical pier pad for lolly column in basement.
- E= Typical footing and wall detail for masonry block wall.
- F= Typical trench foundation.
- G= Typical wall and footing for brick veneer home.
- H= Typical posthole detail for deck.

- G. **Figure R403.1 (2) Permanent Wood Foundation Basement Wall Section:** Delete this figure.
- H. **Figure R403.1 (3) Permanent Wood Foundation Crawl Space section:** Delete this figure.
- I. **Section R403.2 Footings for Wood Foundations:** Delete this section.
- J. **Section R404.1.5.3 Pier and Curtain Wall Foundations:** Delete this section.
- K. **Section R404.2 Wood Foundation Walls:** Delete this section.
- L. **Sections R404.2.2 Stud Size and R404.2.3 Height of Backfill:** Delete these sections.
- M. **Table R404.2.3 Plywood Grade and Thickness for Wood Foundation Construction:** Delete this table.
- N. **Sections R404.2.4 Backfilling; R404.2.5 Drainage and Damp Proofing; and R404.2.6 Fastening:** Delete these sections.
- O. **Sections R405.2 and R405.2.1 through R405.2.3 Wood Foundations:** Delete these sections.
- P. **Sections R406.3 Damp Proofing of Wood Foundations: R406.3.1, R406.3.2, R406.3.3, and R406.3.4:** Delete these sections.
- Q. **Section R407.1 Wood Column Protection:** Delete this section.
- R. **Section R408.4.1 Crawl Space Floor:** Add a new section to read as follows:

 “R408.4.1 Crawl Space Floor. A minimum of a 2-inch thick slush coat of poured concrete shall be installed over a minimum of 4-inch thick stone in the crawl space, with a minimum of a six (6) mil thick polyethylene film moisture barrier with all joints lapped a minimum of 6-inches.”

Chapter 5 – Floors:

- A. **Section R502.1.4.1 Fire Protection. Prefabricated Wood I-Joists:** Add a new section to read as follows:

“R502.1.4.1 Fire Protection. Prefabricated Wood I-Joists. When prefabricated wood I-Joists are used and there is usable space above and below a floor/ceiling assembly, the assembly shall be protected from fire impingement by one of the following:

1. The minimum application of one layer of 5/8-inch drywall and draft stopped per Section 502.12 of the 2006 International Residential Code.
2. The installation of an approved sprinkler system.”

B. Section R502.7.1 Bridging: Amend to read as follows:

“R502.7.1 Bridging. Joists shall be supported laterally by solid blocking, or diagonal bridging (wood or metal) at intervals not exceeding 8-feet.”

C. Section R502.11.4 Truss Design Drawings: Amend to read as follows:

“R502.11.4 Truss Design Drawings. Truss design drawings shall be submitted to and approved by the Building Official prior to a permit being issued for the structure. Truss design drawings shall be provided with the shipment of trusses to the job site. These truss design drawings shall include, at a minimum, the information specified below:

1. Slope or depth, span, and spacing;
2. Location of all joints;
3. Required bearing widths;
4. Design loads as applicable;
 - 4.1 Top cord live load (including snow load)
 - 4.2 Top cord dead load
 - 4.3 Bottom cord live load
 - 4.4 Bottom cord dead load
 - 4.5 Concentrated loads and their points of application
 - 4.6 Controlling wind and earthquake loads
5. Adjustments to lumber and joint connector design values for conditions of use;
6. Each reaction force and direction;

Joint connector type and description (e.g. size, thickness, or gauge) and the dimensioned location of each joint connector except where symmetrically located relative to the joint interface;

7. Lumber size, species and grade for each member;
8. Connection requirements for:
 - 9.1 Truss-to-truss girder
 - 9.2 Truss ply-to-ply

9.3 Field splices

9. Calculated deflection ratio and/or maximum description for live and total load;
10. Maximum axial compression forces in the truss members or enable the building designer to design the size, connections, and anchorage of the permanent continuous lateral bracing. Forces shall be shown on the truss drawing or on supplemental documents;
11. Required permanent truss member bracing location; and
12. Layout design.”

D. **Section R504 Pressure Preserved Treated Wood Floors (on ground)**: Delete this section.

E. **Section R506.1 General**: Amend to read as follows:

“**R506.1 General.** Concrete slab-on-ground floors shall be a minimum 4-inches thick with a minimum of 6x6 welded wire fabric embedded in the mid cross section of the slab. The compressive strength of concrete shall be as set forth in Section R402.2. Fiber mesh can be used in place of welded wire.”

F. **Section R506.2.1.1 Back-Fill in Garages (attached)**: Add a new section to read as follows:

“**R506.2.1.1 Back-Fill under Concrete Garage Floors (attached).** The sub-base for poured concrete garage floors shall be undisturbed inorganic soil. All fill material shall be clean graded sand, crushed stones, or gravel. The use of any soils as fill material is prohibited. Compacted non-organic material can be used with dowelling #4 rebar into the foundation wall a minimum of 4-inches extending into the garage floor area a minimum of 3-feet, placed 24-inches on center around the three (3) walls forming the garage area, may be used. Any practice of soaking the soils within this area will be done in strict conformance with the locally applicable water conservation ordinance and shall be metered.”

Chapter 6 – Wall Construction:

A. **Section R602.2 Grade**: Amend to read as follows:

“**R602.2 Grade.** Studs shall be a minimum No. 2, standard or stud grade lumber.”

B. **Section R602.3.2 Top Plate**: Delete the exception.

- C. **Table 602.10.2 Intermittent Bracing Methods:** Delete methods number four (4) SFB and five (5) GB.

Chapter 7 – Wall Covering:

No Changes.

Chapter 8 – Roof-Ceiling Construction:

- A. **Section R802.10.1 Truss Design Drawings:** Amend to read as follows:

“R802.10.1 Truss Design Drawings. (See Section R502.11.4, as amended by this ordinance.)”

Chapter 9 – Roof Assemblies:

- A. **Section R905.2.7.1 Ice Barrier:** Amend to read as follows:

“R905.2.7.1 Ice Barrier. On all new roof construction and roof tear offs an ice protection barrier that consists of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and extend from the eave’s edge to a point at least 24-inches inside the exterior wall line of the structure.”

Chapter 10 – Chimneys and Fireplaces:

- A. **Section R1003.9 Termination:** Amend to read as follows:

“R1003.9 Termination. Chimneys shall extend at least 2-feet higher than any portion of a building within 10-feet, but shall not be less than 3-feet above the point where the chimney passes through the roof. All wood or solid fuel burning fireplaces and stoves shall be equipped with an approved spark arrester.”

Chapter 11 – Energy Efficiency:

No Changes.

Chapter 12 – Mechanical Administration.

No Changes.

Chapter 13 – General Mechanical System Requirements:

- A. **Section M1307.3.2 Heating Units in Garages:** Add a new section to read as follows:

“M1307.3.2 Heating Units in Garages. Units designed to heat the habitable space of the home shall not be located in a garage.”

Chapter 14 – Heating and Cooling Equipment:

No Changes.

Chapter 15 – Exhaust Systems:

No Changes.

Chapter 16 – Duct Systems:

- A. **Section M1602.2.1 Return Air Vents:** Add a new section to read as follows:

“M1602.2.1 Return Air Vents. Return air vents connected to the heating and cooling system, shall be located in every habitable room of the home, except as prohibited in Section M1602.2 of the code.”

Chapter 17 – Combustion Air:

No Changes.

Chapter 18 – Chimney and Vents:

No Changes.

Chapter 19 – Special Fuel – Burning Equipment:

No Changes.

Chapter 20 – Boilers/Water Heaters:

No Changes.

Chapter 21 – Hydronic Piping:

No Changes.

Chapter 22 – Special Piping and Storage Systems:

- A. Delete the Chapter 22 in its entirety.

Chapter 23 – Solar Systems:

No Changes.

Chapter 24 – Fuel Gas:

No Changes.

Chapters 25 through 32 - Plumbing:

- A. “Delete Chapters 25 through 32. Substitute therefore: The most current State of Illinois Plumbing Code as adopted and/or amended by the City of St. Charles.”

Chapters 33 through 42 – Electrical:

No Changes.

Chapter 43 – Referenced Standards:

No Changes.

Appendix Adoption:

Adopt the following Appendices

- Appendix A - “Sizing and Capacities of Gas Piping”
- Appendix B – “Sizing of Venting Systems – Appliances”
- Appendix C – “Exit terminals of Mechanical Venting Systems”
- Appendix D – “Procedure for Safety Inspection – Existing Appliances”
- Appendix F – “Radon Control Systems” - Delete Figure AF102.
- Appendix G – “Swimming Pools, Spas, and Hot Tubs”
- Appendix J – “Existing Buildings and Structures”
- Appendix K – “Sound Transmissions”
- Appendix M - “Home Day Care R-3 Occupancy”

Delete the following Appendices:

- Appendix E - “Manufacturing Housing used as Dwellings”
- Appendix H - “Patio Covers”

- Appendix I - "Private Sewage Disposal"
- Appendix L - "Permit Fee"
- Appendix N - "Venting Methods (Plumbing)"
- Appendix O - "Gray Water Recycling Systems"
- Appendix Q - "Cross Reference - ICC International Residential Code
Electrical Provisions/National Electrical Code"

SECTION TWO: That after the adoption and approval hereof this Ordinance shall be printed or published in book or pamphlet form, published by the authority of the City Council.

SECTION THREE: That this Ordinance shall be in full force and effect on February 1, 2010.

Presented to the City Council of the City of St. Charles, Illinois this _____ day of _____, 2010.

Passed by the City Council of the City of St. Charles, Illinois this _____ day of _____, 2010.

Approved by the Mayor of the City of St. Charles, Illinois this _____ day of _____, 2010.

Mayor

Attest:

City Clerk

Council Vote:
Ayes: _____
Nays: _____
Abstain: _____
Absent: _____

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Approved as to Form:

City Attorney

Date: _____