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MAYOR'S OFFICE

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Rapid City
Planning Department

October 2, 2003

Honorable Jerry Munson
Mayor
City of Rapid City
300 6th Street
Rapid City, SD 57701

RE: Building Code Effectiveness Grading Schedule Classification Results
Rapid City, Pennington County, South Dakota

Dear Mayor Munson:

We wish to thank you and Jim Clark for the cooperation given to us during our recent Building Code Effectiveness Grading Schedule (BCEGS) survey. Insurance Services Office, Inc. (ISO) is the leading supplier of statistical data, underwriting information, and actuarial analysis to the property/casualty insurance industry in the United States. The BCEGS classifications are distributed by ISO for use by property/casualty insurers to assist in their insurance underwriting and premium development programs for residential and commercial properties. Insurers can use the BCEGS classification number to offer insurance premium discounts to eligible properties in Rapid City.

ISO has completed its analysis of the building codes adopted by your community and the effort put forth to enforce those codes. The resulting BCEGS Classification is a Class 7 for 1& 2 family residential property and a Class 7 for commercial and industrial property. The new Classification is a regression from the former Class 6 for 1& 2 family residential property and a Class 6 for commercial and industrial property. The principal reason contributing to this regression is:

- **Outdated Building Codes**

A revised BCEGS classification would apply to new buildings receiving a Certificate of Occupancy during or after the calendar year in which the revision takes place.

Before we re-classify your community to reflect this change, we would like to know if Rapid City desires to develop a program to regain Class PL 6 and CL 6. If this letter is acknowledged by November 2, 2003, advising us that this matter will be reviewed within the next three months we will postpone the implementation of the classification changes.

After review, if it is your decision to begin an improvement program to regain PL Class 6 and CL class 6, we will need to receive, by January 2, 2004, a list of the changes you intend to make. Additionally, we would appreciate your estimate of the amount of time which will be needed to complete each item. No re-classifying action will be taken if changes are implemented to regain the current classification within one year of the receipt of this letter.

We have attached a copy of our report which will provide you additional information about the classification process and how we evaluated various aspects of your community's building codes and their enforcement. We want to highlight the fact that the ISO Building Code Effectiveness Grading program is an advisory insurance underwriting information and rating tool. It is not intended to analyze all aspects of a comprehensive building code enforcement program. It is not for purposes of determining compliance with any state or local law nor is it for making loss prevention or loss safety recommendations.

If you have any questions about the classification that was developed, please let us know.

Sincerely,

Building Code Department

Building Code Department
(800) 930-1677 ext. 6208

cc: Jim Clark w/enclosure

BUILDING CODE EFFECTIVENESS GRADING SCHEDULE

INTRODUCTION

The purpose of the Building Code Effectiveness Grading Schedule is to review the available public building code enforcement agencies and to develop a Building Code Effectiveness Classification for insurance underwriting information and rating purposes.

The Schedule measures the resources and support available for building code enforcement. It also evaluates how those resources apply to the mitigation of the natural hazards common to the specific jurisdiction. These measurements are then developed into a Building Code Effectiveness Classification number on a relative scale from 1 to 10, with 10 representing less than the minimum recognized protection.

The Schedule is an insurance underwriting information and rating tool. It is not intended to analyze all aspects of a comprehensive building code enforcement program. It is not for purposes of determining compliance with any state or local law or regulation, nor is it for making property/casualty loss prevention or life safety recommendations. It should not be used for purposes other than insurance underwriting information and rating.

The Building Code Effectiveness Classifications developed through the use of this Schedule are only one of several elements used to develop insurance rates for individual properties. Other features specifically relating to individual properties such as construction, occupancy, and exposures have similar importance in the development of these rates.

The Schedule is divided into 3 sections:

Administration of Codes:

This section evaluates the administrative support available in the jurisdiction for code enforcement. It looks for adopted building codes and modifications of those codes through ordinance, code enforcers qualifications, experience and education, zoning provisions, contractor/builder licensing requirements, public awareness programs, the building department's participation in code development activities and the administrative policies and procedures.

Plan Review:

This section assesses the plan review function to determine the staffing levels, personnel experience, performance evaluation schedules, review capabilities, and level of review of construction documents for compliance with the adopted building code for the jurisdiction being graded.

Field Inspection:

This section evaluates the field inspection function to determine the staffing levels, personnel experience, performance evaluation schedules, review capabilities, and level of review of building construction for compliance with the adopted building code for the jurisdiction being graded.

The attached "Classification Details" identify the subject matter, maximum points achievable and the points obtained in the review of your community. This information is provided to you without recommendation and is for your use in understanding the details of the measurement of your building code enforcement activities in relationship to the Building Code Effectiveness Grading Schedule.

Rapid City, SD

SECTION I ADMINISTRATION OF CODES

100. GENERAL

This section evaluates the administrative support for code enforcement within the jurisdiction -- the adopted building codes and the modifications of those codes through ordinance, code enforcers qualifications, experience and education, zoning provisions, contractor/builders licensing requirements, public awareness programs, the building department's participation in code development activities, and the administrative policies and procedures.

105. ADOPTED CODES

Maximum Points Possible	10.00 points
Points Scored	6.45 point(s)

The latest edition of the model codes should be adopted and enforced by the jurisdiction. Use of codes other than the model codes, the National Electric Code, or the CABO 1 & 2 Family Dwelling Code may prorate the points available in Item 105.

If the latest edition of the listed codes were adopted within 1 1/2 years of the published date, and the published date of the listed codes is within 3 years of the date of the grading Column A applies.

If the above does not apply, or the previous edition of the listed codes is adopted, and the published date of the listed codes is within 5 years of the date of the grading, Column B applies.

If the next previous edition of the listed codes is adopted, and the published date of the listed codes is within 10 years of the date of the grading Column C applies

If an earlier edition of the listed codes is adopted Column D applies.

CODES	Points Possible				Points Scored
	A	B	C	D	
Building	7.75 pts.	4.65 pts	3.60 pts	1.70 pts	4.65 pts.
Electrical	0.75 pt	0.45 pt	0.30 pt	0.15 pt	0.75 pt.
Mechanical/Gas	0.75 pt	0.45 pt	0.30 pt	0.15 pt	0.75 pt.
Plumbing	0.75 pt	0.45 pt	0.30 pt	0.15 pt	0.30 pt.
1 & 2 Family Dwelling	4.00 pts*	2.40 pts*	1.60 pts*	0.80 pt*	0.00 pt(s).

* If a building code is adopted and enforced this value will equal 0.00 points.

110. MODIFICATION TO ADOPTED CODES	Maximum Points Possible	5.00 points**
	Points Scored	3.23 points

There should be no modifications to the structural design provisions of the adopted codes and referenced standards that would weaken the intent for construction mitigation of natural hazards as defined in the model codes and referenced standards. No proration is permitted in this item.

** Maximum allowable points = (points credited in item 105) x 0.1 x 5.0

115. TRAINING	Maximum Points Possible	13.00 points
	Points Scored	3.47 point(s)

Amount of expenditures for training equaling at least 2% of the annual operating budget for all building department related activities.

<u>Pts Poss.</u>	<u>Scored</u>
3.00 points	1.92 point(s)

Each code enforcement person receiving the following amount of training per year:

	<u>Pts Poss.</u>	<u>Scored</u>
Administration 12 hours	1.25 points	0.14point(s)
Legal 12 hours	1.25 points	0.14point(s)
Mentoring 12 hours	1.25 points	0.28point(s)
Technical 60 hours	4.25 points	0.99 point(s)

Incentives provided by the jurisdiction for continuing education, outside training, certification and certification maintenance.

	<u>Pts Poss.</u>	<u>Scored</u>
Community paid certification exam fees	0.50 point	0.00 point
Community incentive - outside training/certification	0.50 point	0.00 point
Community paid continuing education	0.50 point	0.00 point

Education of elected officials or governing authorities in building codes and building code enforcement a minimum of 3 hours per official per year.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.00 point

120. CERTIFICATION

Maximum Points Possible	12.00 points
Points Scored	10.88 point(s)

The credit for certification is as follows:

Certification of code enforcement personnel (applicable to the position requirements) through a comprehensive examination representative of the performance area for which certification is sought.

<u>Pts Poss.</u>	<u>Scored</u>
8.00 points	7.83 point(s)

State or local jurisdiction mandated program for certification.

<u>Pts Poss.</u>	<u>Scored</u>
1.00 point	0.85 point

State or local jurisdiction mandated program of certification maintenance through continuing education at least once every 3 years.

<u>Pts Poss.</u>	<u>Scored</u>
2.00 points	1.70 point

Program of employee certification in the field they are employed (prior to employment or within one year of date of hire or advancement).

<u>Pts Poss.</u>	<u>Scored</u>
1.00 point	0.50 point

125. BUILDING OFFICIAL'S QUALIFICATION / EXPERIENCE / EDUCATION

Maximum Points Possible	4.00 points
Points Scored	2.40 point(s)

The following is reviewed:

Licensed Architect or Engineer

<u>Pts Poss.</u>	<u>Scored</u>
0.60 point	0.00 point

Certification as a building official

<u>Pts Poss.</u>	<u>Scored</u>
0.60 point	0.00 point

High School diploma

<u>Pts Poss.</u>	<u>Scored</u>
0.10 point	0.10 point

College degree

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.50 point

Masters degree

<u>Pts Poss.</u>	<u>Scored</u>
0.40 point	0.00 point

Construction related experience

none

<u>Pts Poss.</u>	<u>Scored</u>
0.00 point	

less than 2 years

0.10 point	
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or two to five years

0.20 point	
------------	--

or more than five years

0.60 point	0.60 point
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Code enforcement experience

none

<u>Pts Poss.</u>	<u>Scored</u>
0.00 point	

less than 2 years

0.10 point	
------------	--

or two to five years

0.20 point	
------------	--

or more than five years

0.60 point	0.60 point
------------	------------

Building official experience

less than 2 years

<u>Pts Poss.</u>	<u>Scored</u>
0.10 point	

or two to five years

0.20 point	
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or more than five years

0.60 point	0.60 point
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130. SELECTION PROCEDURES FOR BUILDING OFFICIAL

Maximum Points Possible	0.50	points
Points Scored	0.00	points

The selection process for a building official is designed to select the most qualified candidate.

	<u>Pts Poss.</u>	<u>Scored</u>
Selection through examination.	0.25 point	0.00 point
Selection through peer review.	0.25 point	0.00 point

135. DESIGN PROFESSIONALS

Maximum Points Possible	4.00	points
Points Scored	0.00	point(s)

The credit for design professionals is as follows:

If supervisory plan review staff are graduate or registered architects or engineers.

<u>Pts Poss.</u>	<u>Scored</u>
2.00 points	0.00 point(s)

If non-supervisory plan review staff are graduate or registered architects or engineers

<u>Pts Poss.</u>	<u>Scored</u>
1.50 points	0.00 point(s)

If supervisory field inspection staff are graduate or registered architects or engineers.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.00 point

140. ZONING PROVISIONS

Maximum Points Possible	1.00	point
Points Scored	1.00	point

Where possible, special (through ordinance or code amendment) zoning provisions that address mitigation measures for buildings subject to local natural hazards.

145. CONTRACTOR/BUILDER LICENSING AND BONDING

Maximum Points Possible	1.00 point
Points Scored	0.30 point

Contractors/builders licensed and bonded to work in the jurisdiction being graded. The licensure dependence upon examination and experience.

Licensing requirement for contractors and builders

<u>Pts Poss.</u>	<u>Scored</u>
0.10 point	0.10 point

Licensing by examination

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.12 point

Licensing by experience

<u>Pts Poss.</u>	<u>Scored</u>
0.30 point	0.07 point

Bonding requirements for contractors

<u>Pts Poss.</u>	<u>Scored</u>
0.10 point	0.01 point

150. DESIGNER LICENSING VIOLATION REPORTING

Maximum Points Possible	0.50 point
Points Scored	0.50 point

Reporting of licensing violations in contract documents to the appropriate state professional licensing board.

155. PUBLIC AWARENESS PROGRAMS

Maximum Points Possible	2.00 points
Points Scored	1.52 point(s)

The amount of expenditures for public awareness programs equaling a minimum of 0.5% of the annual operating budget for all building department related activities.

<u>Pts Poss.</u>	<u>Scored</u>
1.00 point	0.52 point

The amount of hours spent by code enforcers on public awareness programs, equaling a minimum of 3 hours per code enforcement employee per year.

<u>Pts Poss.</u>	<u>Scored</u>
1.00 point	1.00 point

160. PARTICIPATION IN CODE DEVELOPMENT ACTIVITIES	Maximum Points Possible	0.50 point
	Points Scored	0.50 point

The building department involvement in code development activities and associations with groups or organizations that assemble building enforcement personnel for the purpose of education and advancement of effective building codes.

Participation in code change activities

<u>Pts Poss.</u>	<u>Scored</u>
0.25 point	0.25 point

Participates in code association/chapter meetings

<u>Pts Poss.</u>	<u>Scored</u>
0.25 point	0.25 point

165. ADMINISTRATIVE POLICIES AND PROCEDURES	Maximum Points Possible	0.50 point
	Points Scored	0.00 point

The credit for "Policies and Procedures" is as follows:

A formal appeal process that a contractor/builder or architect/design professional can utilize as recourse to a building official's interpretation of the adopted building code/zoning regulations.

<u>Pts Poss.</u>	<u>Scored</u>	<u>Pts</u>
	0.00 point	0.30 point

A policies and procedures guide for employees.

<u>Pts Poss.</u>	<u>Scored</u>
0.10 point	0.00 point

The policies and procedures guide covers technical code requirements (such as approved products listings) that would assist a designer or builder.

<u>Pts Poss.</u>	<u>Scored</u>
0.05 point	0.00 point

Publicizing the policies and procedures guide as available to the public.

<u>Pts Poss.</u>	<u>Scored</u>
0.05 point	0.00 point

**SECTION II
PLAN REVIEW**

200. GENERAL

This section evaluates the plan review function to determine the following:

Staffing levels

Personnel experience

Performance evaluation schedules

Review capabilities, and level of review of construction documents for compliance with the adopted building code for the jurisdiction being graded

205. EXISTING STAFFING

	Maximum Points Possible	9.00 points**
	Points Scored	7.47 point(s)

Staffing levels sufficient to assure comprehensive reviews of construction documents for compliance with the adopted building codes.

** Maximum allowable points = $\frac{\text{points achieved in item 215}}{\text{points possible in item 215}} \times \text{item 205}$

210. EXPERIENCE OF PERSONNEL

	Maximum Points Possible	1.50 points
	Points Scored	1.50 point(s)

5 years or greater experience in plan review of plan review staff.

215. DETAIL OF PLAN REVIEW

	Maximum Points Possible	11.50 points
	Points Scored	9.50 point(s)

The credit for the comprehensiveness of plan review is as follows:

Plan reviews conducted on all proposed 1&2 family dwelling construction or dwelling additions/modifications.

Note: When plan reviews are not being conducted, the community classification will be a Class 99 for 1 and 2 family dwellings and the "Pts Scored" will default to the maximum possible in order to determine the community classification for commercial/industrial property.

	<u>Pts Poss.</u>	<u>Scored</u>
	5.00 points	5.00 point(s)

Comprehensive review of plans performed even if they were prepared and sealed by a registered design professional certified in the appropriate field of work.

	<u>Pts Poss.</u>	<u>Scored</u>
	1.50 points	1.50 point(s)

Structural plan reviews conducted for all proposed building construction or building additions/modifications including a review of engineering calculations.

<u>Pts Poss.</u>	<u>Scored</u>
2.00 points	2.00 point(s)

A means to evaluate, or reference evaluation service reports, for substitute products and/or materials for conformance with the intent of the structural portions of the adopted building codes.

<u>Pts Poss.</u>	<u>Scored</u>
1.00 point	1.00 point

A detailed checklist used with each plan review to assure all pertinent building code issues have been considered.

<u>Pts Poss.</u>	<u>Scored</u>
1.50 points	0.00 point(s)

The checklist becomes a part of the permanent record of the project address.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.00 point

220. PERFORMANCE EVALUATIONS FOR QUALITY ASSURANCE

Maximum Points Possible	1.00 point
Points Scored	0.50 point

Credit for quality assurance programs for plan reviewers is as follows:

Annual employee performance evaluations.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.50 point

"Follow-up" plan reviews by a different plan reviewer conducted semiannually.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.00 point

**SECTION III
FIELD INSPECTION**

300. GENERAL

This section evaluates the field inspection function to determine the following:

- Staffing levels
- Personnel experience
- Performance evaluation schedules
- Review capabilities and level of review of building construction

305. EXISTING STAFFING

Maximum Points Possible	9.00 points
Points Scored	8.40 point(s)

Staffing levels sufficient to assure comprehensive reviews of building construction for compliance with the adopted building codes.

310. EXPERIENCE OF PERSONNEL

Maximum Points Possible	3.00 points
Points Scored	2.79 point(s)

5 years or greater experience in field inspection.

<u>Pts Poss.</u>	<u>Scored</u>
1.50 points	1.50 point(s)

2 years or greater of construction related experience.

<u>Pts Poss.</u>	<u>Scored</u>
1.50 points	1.29 point(s)

315. CORRECTION NOTICES AND STOP WORK ORDERS

Maximum Points Possible	0.50 point
Points Scored	0.50 point

Building department authority to issue correction notices and stop work orders for non-compliant construction.

320. INSPECTION CHECKLIST

Maximum Points Possible	2.00 points
Points Scored	0.00 point(s)

A detailed checklist completed for each building construction project to assure that all pertinent building code issues have been considered.

<u>Pts Poss.</u>	<u>Scored</u>
1.50 points	0.00 point(s)

The checklist becomes a part of the permanent record of the project address.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.00 point

325. SPECIAL INSPECTIONS

Maximum Points Possible	1.50 points
Points Scored	1.00 point(s)

Where necessary to assure structural integrity, the building department requirement for special inspections for specific structural elements conducted by professional inspectors who have been certified for such work.

<u>Pts Poss.</u>	<u>Scored</u>
0.75 point	0.75 point

The certification being obtained by a combination of:

Examination

<u>Pts Poss.</u>	<u>Scored</u>
0.25 point	0.00 point

Experience in the field of inspection they will be performing

<u>Pts Poss.</u>	<u>Scored</u>
0.25 point	0.25 point

An interview by the building official to assess qualifications

<u>Pts Poss.</u>	<u>Scored</u>
0.25 point	0.00 point

330. INSPECTIONS FOR NATURAL HAZARD MITIGATION

Maximum Points Possible	1.50 points
Points Scored	1.50 point(s)

When there are construction mitigation measures defined in the adopted building code for the natural hazard(s) peculiar to the area being graded, special inspections that focus on compliance with the provisions of the code.

335. FINAL INSPECTIONS

Maximum Points Possible	2.50 points
Points Scored	2.50 point(s)

Final inspections performed on all buildings after the construction is completed and the building is ready for occupancy.

Final inspections performed for 1 & 2 family dwellings.

<u>Pts Poss.</u>	<u>Scored</u>
1.25 points	1.25 point(s)

Final inspections performed for all other buildings.

<u>Pts Poss.</u>	<u>Scored</u>
1.25 points	1.25 point(s)

340. CERTIFICATE OF OCCUPANCY

Maximum Points Possible	2.00 points
Points Scored	0.80 point(s)

Certificates of occupancy issued by the building department after the construction is completed and prior to the building being occupied.

Certificates of occupancy issued for 1 & 2 family dwellings.

<u>Pts Poss.</u>	<u>Scored</u>
1.20 points	0.00 point(s)

Certificates of occupancy issued for all other buildings.

<u>Pts Poss.</u>	<u>Scored</u>
0.80 point	0.80 point

345. PERFORMANCE EVALUATIONS FOR QUALITY ASSURANCE

Maximum Points Possible	1.00 point
Points Scored	0.75 point

Credit for quality assurance programs for field inspectors is as follows:

Annual employee performance evaluations.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.50 point

"Follow-up" field inspections by a different field inspector conducted semiannually.

<u>Pts Poss.</u>	<u>Scored</u>
0.50 point	0.25 point

Jurisdiction: Rapid City

Total points: 46.11

State: SD

Classification:
1 & 2 Family Dwellings - 7
All Other Construction - 7

Survey Date: July 24, 2002

FINAL SCORING

Section 1	30.25
Section 2	18.97
Section 3	18.24
Subtotal	67.46
Item 105	6.45

The final score is determined by a relationship between Item 105 and the balance of the scoring.

$$[{\{(Section I + Section II + Section III) - Item 105\} \times \frac{\text{Points achieved in Item 105}}{\text{Points possible in Item 105}}}] + Item 105$$

$$[{\{(30.25 + 18.97 + 18.24) - 6.45\} \times (6.45 / 10.00)}] + 6.45 = 46.11$$

Classification	Point Spreads	Classification	Point Spreads
1	93.00 - 100.00	6	51.00 - 60.99
2	85.00 - 92.99	7	39.00 - 50.99
3	77.00 - 84.99	8	25.00 - 38.99
4	69.00 - 76.99	9	10.00 - 24.99
5	61.00 - 68.99	10	0.00 - 9.99