Assessing Diminution in Value

A Methodology for Categorizing Detrimental Conditions

By Randall Bell, MAI

Diminution in Value is the set of legal rules of damage that provides for differences between "before" and "after" values of properties that have been damaged or taken[1]. There are more than 250 various Detrimental Conditions (DCs) that may damage or impact real estate values, which are itemized within **Exhibit 1**. The range of DCs includes construction defects, deferred maintenance, environmental contamination, geo-technical issues and natural disasters.

While identifying, categorizing, and analyzing these numerous DCs may seem overwhelming, the task becomes manageable when the various common attributes and "groupings" are considered and studied. As *The Bell Chart*, set forth as **Exhibit 2** illustrates, all DCs may be placed into one of ten standard categories[2].

Each category or group has distinct valuation attributes that correspond with the diminution in value caused by those types of conditions. This classification is important not only to organize a very long list of complex situations, but also to avoid the error of measuring the effects of one DC by using data from another category, that has different valuation characteristics altogether.

The basic premise of measuring the value of a property that has been impacted by a DC is to recognize some or all of the six basic elements as illustrated in the *Detrimental Condition Model*, which is set forth as **Exhibit 3**. Each DC Class has distinct graphic patterns that center upon the inclusion, exclusion, timing and impact of these six elements.

The first step with any DC is to value the property as if it were a Class I Condition, or as if there is no DC.

EXHIBIT 1

THE BELL CHART

TEN CLASSIFICATIONS OF DETRIMENTAL CONDITIONS

Class		Definition	Types of Conditions	Diminution in Value
I	**No Detrimental Condition (DC) or Benign Condition**	No DC. Or an event occurs, but it has no impact on value.	Any DC If No Impact Sales Arrangement at Market *(If Over Market: II or If Under: IV)* Sale-Leaseback/Land Contract Build-to-Suit/Tenant Purchase Threat of Condemnation/Auction First Right-of-Refusal/Double Escrow	*Key to Graphs* A: Value With No Detrimental Condition A: Value With Detrimental Condition B: Value Prior to Detrimental Condition B: Value Upon (Discovery of) Condition C: Value Upon Assessment of Condition D: Value Upon Condition Resolved/Repaired, Related Costs & Incentive For Risks E: Value Upon On-Going Costs/Losses Resolved F: Residual Adverse Market Reaction
II	**Non-Market Motivation**	Any issue that inflates the price paid over market value. A detriment to the buyer in terms of higher price.	Special Buyer Motivation Assemblage/Expansion Redevelopment Zone Feng Shui	No or Benign DC / Non-Market Value / Time / Time
III	**Market Condition**	The increase or decrease of value due to general market conditions	Economy/Supply & Demand Recession/Depression Lease or Rolling Option Exercise of Option/Takedown	Increasing Values / Decreasing Values
IV	**Temporary Condition**	A short-term event or one-time situation	Distress Sale*/Tragedy** Bulk-Portfolio Sale/Business Inc. Absorption/Temp. Easement Deferred Maintenance/Legal * Bankruptcy/Probate-Estate-Short Sale US Marshall/REO/FDIC/Receivership/RTC ** Crime Scene/Accident/Disease/Riot	Temporary Condition / Absorption or AMR
V	**Imposed Condition**	An act or forced event that affects value. Usually long-term or permanent	Neighboring Nuisance* Bond or Tax Assessment Downzone/Historical Site Eminent Domain/Ground Lease Deed Restriction/Easement * Sewage-Power-Nuclear Plant/Blight Illegal Use/Jail/EMF/Traffic-Airport Noise	Imposed Act or Event / Diminishing Effect
VI	**Super-Surface Construction Condition**	A construction issue above grade	ADA Non-Compliance Not to Code/Lead Paint Construction Defect Poor Workmanship/Asbestos Water Intrusion Above Grade	Repaired Condition / Residual Condition
VII	**Sub-Surface Construction Condition**	A construction issue below grade	Drainage/Tunneling Faulty Foundation/Cut & Fill Retaining Wall or Slope Site Grading/Soil Compaction Water Intrusion Below Grade	Repaired Condition / Residual Condition
VIII	**Environmental Condition**	A man-made environmental or contamination issue	Archeological Site/Oil Spill Ground Water Contamination Landfill/PCB's/TCE's/PCE's Soil Contamination/LUST/Dump CERCLA/Toxic Waste	Repaired Condition / DC Model
IX	**Natural Condition**	A natural occurrence or natural disaster	Wetlands/Earthquake/Volcano Expansive Soil/Sulfates Geotechnical/Flood/Landslide Endangered Species/Radon Slope Instability/Infestation	Repaired Condition / DC Model
X	**Incurable Condition**	A condition that cannot be economically or physically remedied	Applicable to many DCs in severe situations	Loss of Value / Liability

The graphs illustrate typical value patterns and characteristics, but are not intended to quantify issues. All six elements (A-F) should be considered with any DC. Version 2.3 © 1996 Randall Bell, MAI. Used by permission.

EXHIBIT 2

DETRIMENTAL CONDITION (DC) MODEL

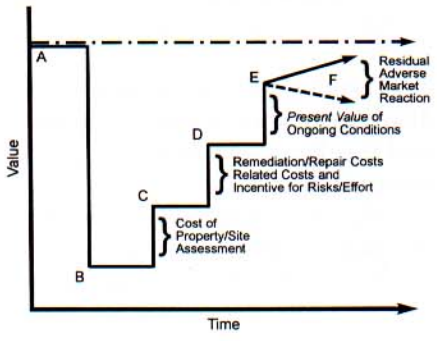

EXHIBIT 3 - DETRIMENTAL CONDITIONS AND THEIR TYPICAL CLASSIFICATIONS

Absorption Loss (IV)
ADA Compliance (VI)
Access Diminution (V)
Accident (IV)
Adverse Possession (V)
Airport Noise (V)
Airport Proximity (V)
Air Disaster (IV)
Air & Light Diminution (V)
Ancient Burial Ground (VIII)
Archeological Site (VIII)
Asbestos (VI)
Ash from Neighboring Incident (IV, V)
Assemblage (II)
Auction (I)
Avalanche (IV)
Bankruptcy (IV)
Benign Condition (I)
Black Carbon from Neighboring Use (IV, V)
Blight (V)
Bond Assessment (V)
Build-to-Suit (I)
BTEX's (VIII)
Building Not to Code (VI)
Business Included (I)
Bulk Sale (I)
Calamity (IV)
Carbonaceous Sediment (IV, V)
Catastrophe (IV)
Cemetery Proximity (V)
CERCLA (VIII)
Civil Unrest ((IV)
Condemnation (V)
Construction Defect (VI, VII)
Construction Noise (IV)
Construction Not to Code (VI, VII)
Contamination (VIII)
Contaminated Public Wells (VIII)
Cracking (VI, VII, IX)
Crime Scene (IV)
Crude Oil Spill (VIII)
Cut & Fill (VII)
Cyclone (IV)
Dam Proximity (V)
Dam Spillage or Bursting (IV)
Death in Property (IV)
Deed Restriction (V)
Deferred Maintenance (IV)
Depression (III)
Differential Settlement (VII)
Dike Proximity (V)
Dike Spillage or Bursting (IV)
Direct Condemnation (V)
Disaster (IV)
Disease (IV)
Distress Sale (IV)
Double Escrow (I)
Downzone (V)
Drainage (VI, IX)
Drought (IV)
Drug Activity (IV)
Dump (VIII)
Dust from Neighboring Use (V)
Earthquake Damage (IX)
Earthquake Fault Zone (IX)
Earthquake Retrofit (VI, VII)
Easement (V)
Economy (III)
Egress Diminution (V)
Electric Plant (V)
Electric Lines (V)
Electro-Magnetic Fields (EMF) (V)
Encroachment (V)
Endangered Species (IX)
Environmental Contamination (VIII)
Environmental Lien (VIII)
Eminent Domain (V)
ERNS List (VIII)
Estate Sale (I)
Excavation Collapse (VII)
Exercise of Option (I)
Expansion (II)
Expansive Soil (IX)
Fault Zone (IX)
FDIC Sale (IV)
Fill Dirt (VII)
Fire (IV)
First Right of Refusal (I)
Feng Shui (II)
Flash Floods (IX)
Formaldehyde (VIII)
Flood Damage (IX)
Foreclosure (IV)
Foundation Issues (VII)
Franchise Included (IV)
Full-Take (V)
Freeway Noise (V)
Gang Activity In Area (IV)
Geotechnical Issues (IX)
Grading (VII)
Graffiti (IV)
Graveyard Proximity (V)
Ground Lease (V)
Ground Water Contamination (VIII)
Ground Water Seepage (IX)
Hazardous Waste (VIII)
Historical Site Designation (V)
Homestead (V)
Hurricane (IX)
Illegal Activity (IV)
Illegal Use (IV)
Imposed Condition (V)
Incurable Condition (X)
Infestation (IX)
Ingress Diminution (V)
Inverse Condemnation (V)
Jail Proximity (V)
Judicial Foreclosure (IV)
Kangaroo Rat (IX)
Land Contract (I)
Landfill (VIII)
Landing Pattern Proximity (V)
Landscape Damage (IV)
Landslide (IX)
Lead Paint (VI)
Leaks (VI, VII)
Lease Option (I)
Legal Issues (IV)
Liquefaction (IX)
Lis Pendens (IV)
LUST (Leaking Underground Storage Tank) (VIII)
Market Conditions (III)
Military Base Proximity (V)
National Priority List (VIII)
Natural Condition (IX)
Neighborhood Blight (V)
Neighborhood Disturbance (IV, V))
Neighboring Construction (IV)
Neighboring Nuisance (V)
Non-Conforming Use (V)
Non-Market Motivation (II)
Monsoon (IX)
MRI Release (IV)
MTBE's (VIII)
Nuclear Disaster (V)
Nuclear Plant Proximity (V)
Nuisance in Area (IV, V)
Odors in Area (V)
Oil Seepage (VIII, IX)
Oil Spill (VIII)
Option (I)
Part-Take (V)
PCB's (VIII)
PCE's (VIII)
Prescriptive Easement (V)
Privacy Loss (V)
Petroleum Spill (VIII)
Ponding (VII)
Poor Workmanship (VI, VII)
Portfolio Sale (IV)
Power Lines (V)
Power Outage (IV)
Power Plant (V)
Prison Proximity (VI)
Probate Sale (IV)
Quake (IX)
Quicksand (IX)
Radon (IX)
Receivership (IV)
Redevelopment Zone (II)
REO (Real Estate Owned) (IV)
Recession (III)
Retaining Slope (VII)
Retaining Wall (VII)
Retrofit (VI)
Riot (IV)
Rodent Infestation (IX)
Rolling Option (I)
RTC Sale (IV)
Sales Arrangement at Market (I)
Sale Leaseback (I)
Septic System Malfunction (IV, VII, VIII)
Settlement (VII, IX)
Sewage Discharge (VIII)
Sewage Treatment Plant Proximity ((V)
Shore Wall Collapse (VII)
Short Term Condition (IV)
Short Sale (IV)
Signage Diminution (V)
Sinkhole (VII, IX)
Site Grading (VII)
Slope Creep (IX)
Slope Instability (IX)
Soil Compaction (VII)
Soil Contamination (VIII)
Soils Subsidence (VI, IX)
Solid Waste Disposal Proximity (V)
Solvent Contamination (VIII)
Soot from Neighboring Use (IV, V)
Special Buyer Motivation (II)
Special Tax Assessment (V)
Special Use Permit (II)
Spillage (VIII)
Storm (IX)
Street Noise (V)
Sub-Surface Construction Defect (VII)
Subsidence (VII, IX)
Suicide on Premises (IV)
Sulfates (IX)
Superfund Site (VIII)
Super-Surface Construction Defect (VI)
Supply and Demand (III)
Takedown (III)
Tax Assessment (V)
Tax Lien (V)
TCE's (VIII)
Temporary Condition (IV)
Temporary Easement (IV)
Tenant Purchase (I)
Termites (IX)
Threat of Condemnation (I)
Tidal Wave (IX)
Title Dispute (IV)
Tornado (IX)
Toxic Contamination (VIII)
Toxic Waste (VIII)
TPH's (VIII)
Traffic Congestion (IV)
Traffic Diminution (V)
Traffic Noise (V)
Tragedy (IV)
Treatment Storage & Disposal Facility (V)
Tunnel Collapse (VII)
Tunneling (V)
Twister (IX)
Urban Decay (V)
Utility Disruption (IV)
Utility Easement (V)
US Marshall Sale (IV)
Vacancy Problems (IV)
Vandalism (IV)
View Diminution (V)
Volcano (IX)
Waste Water Discharge (VIII)
War (IV)
Water Contamination (VIII)
Water Intrusion (VI, VII, IX)
Water Leaks (VI, VII)
Water Shortage (IV)
Wetlands (IX)
Woodrot (IX)
X-Ray Release (IV)
Youth Hostel Proximity (V)
Zoning Change (V)
Zoning Variance (II)

This is reflected as Point A. Upon the discovery of the DC, the value may fall to Point B. Some DCs require an assessment, such as conducting a soils or engineering study. The value during this period is usually the lowest, as a potential buyer would likely require a very significant discount to entice them to purchase a property where the extent of damage is unknown.

Upon the completion of a study, if in-fact one is required, the value will generally increase to Point C. If repairs are required, then the value will increase to Point D upon completion. As expected, D minus C measures the cost of repairs, including all related costs and incentives or discounts to assume the risks and efforts.

Point E reflects the value of the property after considering the net present value of any on-going conditions, such as absorption costs, loss of utility, continuing oversight or maintenance, additional financing or insurance costs, and any other restrictions or costs.

In some conditions, a residual adverse market perception remains. This is often referred to as stigma, onus or taint, which is indicated as Point F, where applicable. This reflects the resistance of typical buyers to

EXHIBIT 4

BASIC FORMULAS FOR DETRIMENTAL CONDITIONS

CLASS I	V_I	=	**I_o/R_o, as if no DC**
CLASS II	V_{II}	=	**$[V_I X (1+P)] - PV_{IR}$**
CLASS III	V_{III}	=	**$[V_I X (1 - MT)] + PV_{IR}$**
		=	**$[V_I X (1 + MT)] - PV_{IR}$**
CLASS IV	V_{IV}	=	**$V_I - PV_{TC} + PV_{IR}$**
		=	**$V_I - PV_{AC} + PV_{IR}$**
		=	**$V_I X (1 - CA) + PV_{IR}$**
CLASS V	V_V	=	**$V_I X (1 - CA) + PV_{IR}$**

CLASSES VI-X

$$V = V_I - \{[PAC + RC + DR + R_{RISK} + PV_{AC} + PV_{OM} + PV_{FI} + PV_{RU}] \times [1 - RAMR]\} + PV_{IR}$$

Class VI-IX, Where $V > 0$; Class X, Where $V \leq 0$

KEY TO FORMULAS

V	=	**Value**
I_o	=	**Net Operating Income**
R_O	=	**Overall Rate, or Capitalization Rate**
P	=	**Premium Over Market**
MT	=	**Market Conditions Over Time**
PV_{TC}	=	**Present Value of Costs or Loss of Utility from Temporary Condition**
PV_{IR}	=	**Present Value of Insurance and Recoveries**
CA	=	**Condition Adjustment**
PAC	=	**Property Assessment Cost** i.e., site assessments, phase I, phase II, intrusive testing, well monitoring, etc.
RC	=	**Remediation or Repair Cost** i.e., administrative & general, agency oversight, back-fill, disposal, engineering excavation, insurance, legal oversight, permits, remediation, repairs sampling & analysis, soil compacting, transport & hauling, treatment, trenching & back-hoe, etc.
DR	=	**Demolition and Reconstruction Costs** i.e., structure, landscape, paving, utilities, well site removal, moving, etc.
R_{RISK}	=	**Risk Factor** to account for the uncertainties of future costs, contingencies, and incentive/ discount to assume risks/effort
PV_{AC}	=	**Present Value of Absorption Costs or Loss of Utility** i.e., fixed operation costs, lost rents, tenant relocation, leasing commissions
PV_{OM}	=	**Present Value of Oversight and Maintenance** i.e., operations & management program (O&M), periodic reviews, eventual repairs or remediation, reinstallation of wells, post-remediation monitoring, etc.
PV_{FI}	=	**Present Value of Financing and Insurance Cost Premiums**
PV_{RU}	=	**Present Value of Restrictions on Use**
RAMR	=	**Residual Adverse Market Reaction** a.k.a. post remediation onus, taint, stigma, negative residual perception, etc.

purchase a property that has been damaged, or where there remains a question as to the adequacy of the repairs, market perceptions, the fear of future related issues arising, or simply the trouble of owning a previously damaged property.

As the chart details, the basic classifications reflect the distinct graphic attributes of each class. For example, the value patterns of deferred maintenance are similar to a construction easement, and slope instability is similar to wetlands. However, the value patterns of a construction easement are distinct from slope instability.

Both Class IV DCs and Class IX DCs may reflect a loss attributable to adverse market reactions (stigma), but these graphic patterns are distinctly different. Class IV DCs do not include special engineering studies or remediation costs, and any related Class IV stigma virtually always diminishes over time, while the perceptions related to a property with soils contamination may worsen over time, in the event that governmental standards become more strict.

The chart and accompanying formulas accommodates the full range of possible situations. For example, one may contend that a DC exists, but upon investigation, it may be determined to be a Class I - Benign Condition. This issue often arises when a buyer, acting out of buyer's remorse, cites a benign condition as an excuse for rescinding the sale. On the other hand, some environmental contamination cases are extremely complex[3], and some conditions may be so severe, that the cost to repair or remediate is greater than the property's value. This is reflected by the Class X category.

When encountering any DC, the parties involved should first determine its classification, and consider all of the six basic elements. This will lay the foundation for a meaningful evaluation of the diminution in value. Once the DC has been properly classified, relevant market data may be researched and applied, using the formulas set forth as **Exhibit 4**. The benefit of these formulas is that they itemize each of the components that result in a diminution in value. The categorization of DCs and the accompanying formulas provides thorough, consistent and proven methodologies in the study of conditions that result in a diminution in value. ■

Randall Bell is a real estate appraiser and consultant in Laguna Niguel and Santa Monica California. He specializes in diminution in value issues, including environmental contamination, construction defects, eminent domain, crime scene stigma, natural disasters and other detrimental conditions.

Mr. Bell has an MBA in Real Estate from UCLA, is an instructor with the Appraisal Institute and has testified as an expert witness on numerous occasions. He is the author of the seminar, The Impact of Detrimental Conditions on Real Estate Values, which he has taught nationwide to various real estate organizations.

Notes

[1]Henry Campbell Black, *Black's Law Dictionary* (St. Paul: West Publishing Company, 1991), 458.

[2]Randall Bell, MAI "Ten Standard Classifications of Detrimental Conditions," Right of Way Magazine (July 1996): 28.

[3]Randall Bell, MAI, "Quantifying Diminution in Value and Detrimental Conditions: An Application to Environmentally Contaminated Properties," *The Environmental Claims Journal* (Autumn 1996): 127-137.