SECURITY MASTER PLAN

For

WEST VALLEY/ MISSION
COMMUNITY COLLEGE DISTRICT

Submitted by:

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SECURITY MASTER PLAN
West Valley/ Mission Community College District

1.0 EXECUTIVE SUMMARY
The following Security Master Plan has been prepared for the West Valley/ Mission Community College by CATALYST Consulting Group, Inc. (CATALYST), a security consultancy with specific expertise in planning and design for public institutions and college environments.

The primary intent of the Security Master Plan (SMP) is to provide the District with a set of guidelines and recommendations for the selection, implementation, management and operation of programmatic, procedural, physical, electronic, environmental and behavioral security modifications designed to minimize risk and maximize the protection of the District’s employees, students, property and sensitive information. The SMP begins with an explanation of the statistical and anecdotal data CATALYST used to assess the threats presented to the District staff, faculty, students, and property. The plan then provides a detailed evaluation of specific crime statistics data collected for the areas inclusive of and surrounding both the West Valley College and Mission College campuses. Next, the SMP present’s CATALYST’s findings and conclusions from the site, building, lighting and landscaping surveys conducted on each campus as well as information collected during informal interviews held with various staff and faculty. Evaluations based on the data gathered from the crime statistics analysis and surveys is used to provide a vulnerability/risk analysis for each campus. The vulnerability/risk analysis is in turn used to provide detailed recommendations that CATALYST believes will mitigate many of the potential threats identified and thereby provide the District with viable solutions to increase the overall level of campus safety and security.

Among the key specific recommendations that this plan will address are:

- A centralized Police Business Office (PBO) with adequate personnel and staffing for patrol, system monitoring and emergency response functions.
- A District-standard integrated Access Control and Alarm Management System (ACAMS).
- A District-standard integrated Digital Video Surveillance System (DVSS).
- Centralized ACAMS system administration with video and alarm monitoring capability.
- The incorporation of effective campus-wide Emergency Communications systems (ECS).
- A preventative maintenance program for existing light fixtures and the addition of new light fixtures at select locations on the campuses.
- Security landscaping guidelines and recommendations.
- Detailed criteria and guidelines for building, parking and site location selection of field electronic security filed devices that function as part of the recommended security systems.
2.0 INTRODUCTION

West Valley/ Mission Community College District (District) engaged the services of CATALYST Consulting Group, Inc. to develop a Security Master Plan for the District campuses. This report focuses on the security concerns and provides security recommendations for both the West Valley College and Mission College campuses.

CATALYST is a Security Consulting firm based in Napa, CA. with over twenty years of professional experience in security planning, assessment, vulnerability analysis, risk mitigation, systems evaluation, systems design and integration, systems specifications, cost analysis, vendor evaluation, system and vendor selection, construction administration, and system testing. CATALYST has recently performed Security Assessment and Master Planning services for the Chabot Las Positas Community College District, the Santa Rosa Community College District, the San Jose/ Evergreen Community College District, Dominican University, Saint Mary’s College and The University of California – Merced and currently for Columbia College.

The primary intent of the Security Master Plan is to provide the District with a set of guidelines and recommendations for the selection, implementation, management and operation of programmatic, procedural, physical, electronic, environmental and behavioral security modifications designed to minimize risk and maximize the protection of the District’s employees, students, property and sensitive information. It is further the intent of the SMP to define campus standards for the security systems and hardware to be utilized in new and existing buildings. The security systems include the Access Control and Alarm Monitoring System, the Video Surveillance System (which includes video recording), and the Emergency Communication System (which includes emergency call stations, an all call paging system and classroom telephones).

The Security Master Plan uses Vulnerability/Risk Analysis as a foundation for developing guidelines and recommendations and incorporates an assessment of current threats faced by District. The Vulnerability/Risk Analysis is further used to define the priorities for a set of risk mitigation recommendations. To develop the Security Assessment, CATALYST has performed numerous site surveys and interviews, analyzed crime index data, reviewed the relevant technologies, and assessed the facilities physical environment with respect to the safety and security of students, staff and property.

To present this information in a clear and logical manner, CATALYST has divided the SMP into five primary sections. Each section is intended to provide specific and detailed information on the Section topic, which serves to further develop information presented in subsequent sections. Section 3, Sources of Information, provides background information regarding the sources and methods of
acquiring the data necessary to develop the Security Assessment. Section 4, *Crime Statistics and Information Analysis*, presents detailed crime information data useful in providing a benchmark for analysis during the surveys, which is required to develop the vulnerability and risk assessment. Section 5, *Survey Findings*, includes pertinent information gathered during the Site Surveys, Security Program and Personnel, Electronic Security Systems, Key Control Survey, Lighting and Landscaping Survey, and Interviews with Staff. Section 6, *Vulnerability/Risk Analysis* utilizes the relevant information gathered during the survey and interview process as well as crime statistics analysis to detail the vulnerabilities and risks faced by the District. Section 7, *Recommendations*, includes an examination and evaluation of the existing Security Policy and Procedures as well as recommended changes and enhancements focused on these policies and procedures and mitigation measures to heighten the security of the District campuses.

The recommended changes and enhancements included within this document are focused on the District’s electronic, programmatic, and physical security needs and are intended to lower the vulnerabilities of prioritized risks outlined in this document. Since the campuses will receive new buildings as well as renovations of existing buildings, these two conditions are treated separately in the recommendations section on Physical Security. For the purpose of the SMP, “Existing Building Renovation” should be taken in reference to security system replacement and/or upgrades and is not intended to imply or be related to Architectural and/or Tennant Improvements to existing buildings. The goal of the recommendation listing is to provide the District with a system to evaluate specific operational and procedural enhancements as well as to delineate specific locations where new security devices will be installed utilizing an objective ranking system.
3.0 SOURCES OF INFORMATION

To achieve the multi-faceted goals of the SMP, CATALYST utilized data gathered from three primary sources: crime statistics, site surveys, and interviews. The information collected is utilized throughout this report and is applicable to each of the subsequent sections. This Section details the relevance of the data as well as the processes used to gather this data.

3.1 Crime Statistics

CATALYST collected various statistical data representative of crime levels in the areas surrounding both the Mission College and West Valley College campuses for the purpose of providing a benchmark against which the survey information is evaluated. Using the Uniform Crime Reporting Index (UCR), produced by the Federal Bureau of Investigation, the Clery Act reporting and CAP Index reporting, we extrapolated crime threat levels relevant to each campus. The statistical data provided an analysis of local, county and neighborhood crime levels compared to state and national incident statistics. This data was used in conjunction with the survey methodology to provide a baseline for the Vulnerability/Risk Analysis.

Because the UCR statistics include population as the only benchmark figure, CATALYST obtained a report from an independent outside agency that includes socio-economic demographic information as well. This report was generated by CAP Index, Inc., a private company founded in 1988, specializing in loss, risk and crime forecasting, prevention and analysis. CAP Index reports have been accepted in courts for both civil and criminal litigation purposes throughout the country as a reliable statistical tool for crime projections. The crime analysis report is derived from informational databases that contain current socio-economic demographic data and crime statistics (current and past) for the immediate reporting district in which the target facility is located.

3.2 Surveys

A key source of information used in the SMP preparation is data collected during site surveys and interviews regarding perceived threats and vulnerabilities. A survey of currently implemented risk mitigation measures was used to assess the extent of applied physical security methods and their effectiveness. Lighting and landscaping surveys were conducted to evaluate campus nighttime lighting levels and evaluate landscaping with respect to vehicular and pedestrian safety and security. A Key Control survey was additionally conducted to evaluate the effectiveness of the mechanical key control policy and management.

The methodology employed by CATALYST in conducting the physical site, building, lighting and landscaping surveys is based on the principles of Timothy Crowe’s Crime Prevention Through
Environmental Design (CPTED), Second Edition, (Butterworth Heineman, 2000). The primary focus was on: “Concentric Circles of Protection” and “Natural Surveillance”.

The concept of “Concentric Circles of Protection” is based on varying levels of protection originating at the external area and becoming increasingly more stringent as one proceeds through each level to reach the most critical area (center). Intervention zones are created to provide control locations and/or detection areas. Examples include the building entry points, monitoring of emergency exit only perimeter doors, interior motion detection and/or glass break detection, and interior access control and alarm doors protecting sensitive internal areas.

The concept of Natural Surveillance centers on one’s ability to view the space around them, maximize visibility, and thus increase one’s awareness and reduce the vulnerability for crime. Natural surveillance concepts focus on exterior conditions that effect surveillance, primarily lighting and landscaping, as well as interior areas of surveillance including building access, departmental access and access to sensitive interior areas.

3.3 Lighting and Landscaping

One of the principle areas of investigation during the survey process was the measurement and evaluation of exterior nighttime lighting levels. The following provides information on the importance of adequate exterior lighting. Information on recommended security lighting levels that are used in our analysis as well as findings from the Lighting and Landscaping Survey can be found in Section 5.8.

General Principals of Security Lighting:

- Integrate light into the total security system and thereby facilitate the effectiveness of other security devices or procedures.\(^1\)
- Illuminate objects, people, and places to allow observation and identification and thereby physically reduce criminal concealment.\(^1\)
- Use illumination to deter criminal acts by creating a fear of detection, identification, and apprehension.\(^1\)
- Reduce the fear of crime for the innocent by enhancing their perception of security.\(^1\)
- According to a National Institute of Justice (NIJ) Research Brief, published in April 1996, lighting is one of the few facility features that have been documented to reduce crime.

\(^1\) IESNA LIGHTING HANDBOOK, Ninth Edition (2000).
While the above guidelines have been established, there is no current U.S. national standard for protective or security lighting. Formerly there was ANSI A85.1-1956 (R1970), American National Standard for Protective Lighting issued in 1956 and reaffirmed in 1970. This standard has since been withdrawn and no formally adopted standard has been issued. However, the Illuminating Engineering Society of North America (IESNA) is the recognized technical authority on illumination. Through its technical committees, the IESNA publishes recommended practices regarding lighting applications (Security Lighting is one of the applications), design guides, and technical memoranda. The Society also works with related organizations, such as the American National Standards Institute (ANSI), in the production of jointly published documents and standards. Until a new ANSI Security Lighting standard is formally adopted, the IESNA design guidelines are the most recognized reference for Security Lighting.

3.4 Interviews

Informal interviews with various District and College personnel were included in the survey process to provide insight into whether the current physical security mitigation measures were in line with the personnel's perceived sense of vulnerability. The interviews provided key insights from staff with specific regard to perceptions of safety and security of personnel, students and property within the facilities on campus, effectiveness of existing security systems and procedures, specific departmental perceptions of vulnerabilities, perceptions of Police staffing levels, and perceptions of general security awareness. The information gleaned from the interviews is particularly important because, in addition to providing the aforementioned perceptions, they also provide a point of reference for balancing the effectiveness of a current educational culture with the increasing vulnerabilities experienced as a result of campus growth.

In addition to these informal interviews, detailed discussions were conducted with individuals in the District Police Department and Facilities Management. The purpose of these interviews was to gather programmatic, operational, procedural, and system specific security information on the District as a whole as opposed campus and departmentally specific data.

The information gathered from these various sources is included within the remainder of this assessment, specifically in the categories of Survey Findings, Vulnerability/Risk Analysis, and Recommendations. Within these sections are the details identifying threats and vulnerabilities at each campus, an examination of existing physical and procedural security measures and the recommendations that CATALYST believes will enhance the safety and security of the West Valley/Mission Community College District's students, staff, and property.
4.0 CRIME STATISTICS INFORMATION AND ANALYSIS

“No security plan or program can be effective unless it is based upon a clear understanding of the actual risks it is designed to control.”

In assessing vulnerability to crime for the District, CATALYST gathered statistical historic crime data from the Uniform Crime Report for the reporting years 2000 and 2005 published by the FBI and data from the Clery Act for the reporting years 2000 and 2005. In addition to this historical data, CATALYST obtained a crime statistic and analysis report from CAP Index, Inc.

4.1 FBI Uniform Crime Report (UCR)

The Uniform Crime Reporting Program classifies offenses into two groups, Part I and Part II offenses. Each month, contributing agencies submit information on the number of Part I (Crime Index) offenses known to law enforcement. Part 1 offenses are grouped into two categories, violent crimes and non-violent crimes. Violent crimes include criminal homicide, forcible rape, robbery and aggravated assault. Non-violent crimes include burglary, larceny, and motor vehicle theft. These seven crimes and associated population statistics for the reporting agencies jurisdictional area have been the basis of the UCR Crime Index since its inception in 1929. In 1979, data on Arson was added to the list and used to develop the Modified Crime Index. Brief definitions of the Part I offenses are included below.

- Criminal Homicide: a) Murder and non-negligent manslaughter: The willful killing of one human being by another. Deaths caused by negligence, attempts to kill, assaults to kill, suicides, and accidental deaths are excluded. b.) Manslaughter by negligence: the killing of another person through gross negligence. Traffic fatalities are excluded.

- Forcible Rape: The carnal knowledge of a female forcibly and against her will. Rapes by force and attempts or assaults to rape regardless of the age of the victim are included. Statutory offenses are excluded.

- Robbery: The taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence and/or by putting the victim in fear.

- Aggravated Assault: An unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury. This type of assault is usually accompanied by

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the use of a weapon or by means likely to produce death or great bodily harm. Simple assaults are excluded.\(^3\)

- Burglary: The unlawful entry of a structure to commit a felony or a theft. Attempted forcible entry is included.\(^4\)

- Larceny: The unlawful taking, carrying, leading, or riding away of property from the possession or constructive possession of another. Examples include thefts of bicycles or automobile accessories, shoplifting, pocket picking, or stealing of any property or article, which is not taken by force or by fraud. Attempted larcenies are included. Embezzlement, forgery, worthless checks, etc. are excluded.\(^4\)

- Motor Vehicle Theft: The theft or attempted theft of a motor vehicle. A motor vehicle is self-propelled and runs on the surface not on rails. Motorboats, construction equipment, airplanes, and farming equipment are specifically excluded.\(^4\)

- Arson: Any willful or malicious burning or attempt to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle, aircraft, personal property of another, etc.\(^4\)

Part 2 offenses, which include Vandalism, Disturbances, Fraud and Forgery, Trespassing, Traffic and Parking Violations, Threats and Restraining Order Violations, are lesser magnitude crimes and are not tracked in the UCR. However, the risk associated with these types of offences will be included in the Vulnerability/Risk Analysis section of this report.

Because there was a discrepancy between the actual statistics recorded by the UCR and those statistic provided by District Police under the Clery Act, the following table below reporting campus crime includes data from the Clery Act for years 2000 and 2005 for the West Valley/ Mission Community College District as well as the increases/ decreases in numbers and percentages for each category. Subsequent tables included data recorded for each City by the UCR. The UCR and Clery Act does not divide the statistics per campus because the District Police are a single reporting agency.

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### WVMCCD Security Master Plan

<table>
<thead>
<tr>
<th>Year</th>
<th>Violent Crime</th>
<th>Property Crime</th>
<th>Murder</th>
<th>Forcible Rape</th>
<th>Robbery</th>
<th>Aggravated Assault</th>
<th>Burglary</th>
<th>Larceny</th>
<th>Motor Vehicle Theft</th>
<th>Arson</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19,910</td>
<td>6</td>
<td>163</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>73</td>
<td>86</td>
<td>4</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>19,295</td>
<td>4</td>
<td>97</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>89</td>
<td>3</td>
</tr>
<tr>
<td>Difference</td>
<td>-521</td>
<td>-2</td>
<td>-66</td>
<td>0</td>
<td>0</td>
<td>-2</td>
<td>0</td>
<td>-68</td>
<td>+3</td>
<td>-1</td>
</tr>
<tr>
<td>% Increase</td>
<td>(3.08%)</td>
<td>(33.33%)</td>
<td>(40.49%)</td>
<td>0%</td>
<td>0%</td>
<td>(200%)</td>
<td>0%</td>
<td>(93.15%)</td>
<td>3.37%</td>
<td>(25%)</td>
</tr>
</tbody>
</table>

The following table below includes data from the UCR for 2000 and 2005 for the City of Saratoga as well as the increases/decreases in numbers and percentages for each category. This information is included for the evaluation of trends between crime on campus and crime in the neighborhoods surrounding the Saratoga campus.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Violent Crime</th>
<th>Property Crime</th>
<th>Murder</th>
<th>Forcible Rape</th>
<th>Robbery</th>
<th>Aggravated Assault</th>
<th>Burglary</th>
<th>Larceny</th>
<th>Motor Vehicle Theft</th>
<th>Arson</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>30,452</td>
<td>42</td>
<td>298</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>32</td>
<td>83</td>
<td>198</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>29,830</td>
<td>21</td>
<td>377</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>15</td>
<td>115</td>
<td>249</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Difference</td>
<td>-622</td>
<td>-21</td>
<td>+79</td>
<td>0</td>
<td>-2</td>
<td>-2</td>
<td>-17</td>
<td>+32</td>
<td>+51</td>
<td>-4</td>
<td>+1</td>
</tr>
<tr>
<td>% Increase</td>
<td>(2.04%)</td>
<td>(50%)</td>
<td>(20.96%)</td>
<td>0%</td>
<td>(40%)</td>
<td>(50%)</td>
<td>(53%)</td>
<td>27.82%</td>
<td>20.48%</td>
<td>(23.52%)</td>
<td>100%</td>
</tr>
</tbody>
</table>

The following table below includes data from the UCR for 2000 and 2005 for the City of Santa Clara as well as the increases/decreases in numbers and percentages for each category. This information is included for the evaluation of trends between crime on campus and crime in the neighborhoods surrounding the Santa Clara campus.
<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Violent Crime</th>
<th>Property Crime</th>
<th>Murder</th>
<th>Forcible Rape</th>
<th>Robbery</th>
<th>Aggravated Assault</th>
<th>Burglary</th>
<th>Larceny</th>
<th>Motor Vehicle Theft</th>
<th>Arson</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>102,241</td>
<td>292</td>
<td>2,829</td>
<td>0</td>
<td>6</td>
<td>33</td>
<td>253</td>
<td>514</td>
<td>2,035</td>
<td>280</td>
<td>54</td>
</tr>
<tr>
<td>2005</td>
<td>104,692</td>
<td>190</td>
<td>3,420</td>
<td>5</td>
<td>18</td>
<td>49</td>
<td>118</td>
<td>553</td>
<td>2,470</td>
<td>397</td>
<td>10</td>
</tr>
<tr>
<td>Difference</td>
<td>+2,451</td>
<td>-102</td>
<td>+591</td>
<td>+5</td>
<td>+12</td>
<td>+16</td>
<td>-135</td>
<td>+39</td>
<td>+435</td>
<td>+117</td>
<td>-44</td>
</tr>
<tr>
<td>% Increase (Decrease)</td>
<td>2.34%</td>
<td>(34.93%)</td>
<td>17.28%</td>
<td>500%</td>
<td>66.66%</td>
<td>32.65%</td>
<td>(53.35%)</td>
<td>7.05%</td>
<td>17.61%</td>
<td>29.57%</td>
<td>(81.48%)</td>
</tr>
</tbody>
</table>

By examining the Clery Act data tables for campus criminal activity, it is clearly evident that overall there has been a reduction of incidents on the District campuses between the 2000 and 2005 reporting years. This same trend was not found in the similar crime data for Saratoga and Santa Clara during the same reporting period. In fact, Property Crime, Burglary and Larceny were up significantly in both Cities between the 2000 and 2005 reporting years. Further trend comparison information is included in Section 4.3 – Concluding Analysis.

### 4.2 CAP Index Report

CAP Index reports are based on a CRIMECAST score. CRIMECAST scores are derived from an evaluation system designed to accurately identify the risk to personnel and/or property at any location in the United States. The CRIMECAST model is based upon the strong relationship that exists between a neighborhood’s "social disorganization" and the amount of crime that is perpetrated there. The CAP Index report includes CRIMECAST scores for each of seven crime types listed in the FBI’s UCR as Part I Offences, as well as an overall Crimes Against Persons score, an overall Crimes Against Property score, and an overall "CAP Index" score. The CAP Index score is a weighted average of the homicide, rape and robbery scores. The emphasis is placed on these three (3) crimes because they pose the greatest danger to students, staff and the general public. CRIMECAST scores indicate a site’s risk of crime in comparison to the National, State or County average. The scores are scaled so that a value of 100 is equal to the National, State or County average. Scores over 100 represent above-average predicted crime risks, while scores under 100 indicate below-average risks. Dividing the CAP Index scores by 100 provides a greater (or lesser) percentage of likelihood of occurrence compared to National, State and County averages.

In addition to the “Current Scores” tabulated in the CAP Index report, there are historical (“Past Scores”) and expected future (“Projected Scores”) tabulations. These figures are valuable in security assessment and planning because they provide added historical evidence and develop predictions for trends in future crime.
Specific CRIMECAST Details and Statistical Mapping

**Current Scores – West Valley College**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAP Index</strong></td>
<td>48</td>
<td>31</td>
<td>35</td>
</tr>
<tr>
<td>Homicide</td>
<td>108</td>
<td>100</td>
<td>79</td>
</tr>
<tr>
<td>Rape</td>
<td>64</td>
<td>45</td>
<td>40</td>
</tr>
<tr>
<td>Robbery</td>
<td>46</td>
<td>29</td>
<td>35</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>41</td>
<td>27</td>
<td>40</td>
</tr>
<tr>
<td><strong>Crimes Against Persons</strong></td>
<td>43</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td>Burglary</td>
<td>63</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Larceny</td>
<td>46</td>
<td>31</td>
<td>49</td>
</tr>
<tr>
<td>Motor Vehicle Theft</td>
<td>53</td>
<td>39</td>
<td>53</td>
</tr>
<tr>
<td><strong>Crimes Against Property</strong></td>
<td>51</td>
<td>31</td>
<td>43</td>
</tr>
</tbody>
</table>

**Past Scores (2000) – West Valley College**

<table>
<thead>
<tr>
<th>Past Scores (2000)</th>
<th>National Scores</th>
<th>State Scores</th>
<th>County Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAP Index</strong></td>
<td>46</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>Homicide</td>
<td>99</td>
<td>91</td>
<td>79</td>
</tr>
<tr>
<td>Rape</td>
<td>57</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>Robbery</td>
<td>45</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>41</td>
<td>27</td>
<td>42</td>
</tr>
<tr>
<td><strong>Crimes Against Persons</strong></td>
<td>43</td>
<td>28</td>
<td>40</td>
</tr>
<tr>
<td>Burglary</td>
<td>64</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>Larceny</td>
<td>46</td>
<td>31</td>
<td>50</td>
</tr>
<tr>
<td>Motor Vehicle Theft</td>
<td>53</td>
<td>40</td>
<td>54</td>
</tr>
<tr>
<td><strong>Crimes Against Property</strong></td>
<td>51</td>
<td>31</td>
<td>43</td>
</tr>
</tbody>
</table>
**Future Scores (2011) – West Valley College**

<table>
<thead>
<tr>
<th>Projected Scores (2011)</th>
<th>National Scores</th>
<th>State Scores</th>
<th>County Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAP Index</strong></td>
<td>48</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>Homicide</td>
<td>112</td>
<td>103</td>
<td>79</td>
</tr>
<tr>
<td>Rape</td>
<td>63</td>
<td>44</td>
<td>37</td>
</tr>
<tr>
<td>Robbery</td>
<td>47</td>
<td>29</td>
<td>35</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>40</td>
<td>25</td>
<td>39</td>
</tr>
<tr>
<td><strong>Crimes Against Persons</strong></td>
<td>43</td>
<td>27</td>
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In addition to the detailed CRIMECAST score information, the report includes a Site Map depicting the crime risk surrounding the target location. The Site Map shows "CAP Index" scores in comparison to the national average for the current time period. The CRIMECAST scoring methodology involves the creation of two circles around the target site: the first circle at a maximum radius of one (1) mile or a population threshold of 25,000 people, and the second circle at a maximum radius of three (3) miles or a population threshold of 100,000 people. Both circles are shown on the Site Map, along with the CRIMECAST scores for each census tract that falls within these circles. The Site Map is included to enhance the interpretation of a CRIMECAST assessment.

See next page for a detailed Site Map depicting the crime risk surrounding the target location.
Site Map – West Valley College

Specific CRIMECAST Details and Statistical Mapping
## Current Scores – Mission College

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<thead>
<tr>
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## Past Scores (2000) – Mission College

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**Future Scores (2011) – Mission College**

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<td><strong>Crimes Against Property</strong></td>
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See next page for a detailed Site Map depicting the crime risk surrounding the target location.
Site Map – Mission College
4.3 Concluding Analysis

When analyzing statistical crime information, it is useful to look at the percentage of increase (decrease) as well as the averaged scores. These figures provide insight into trends as well as target specific types of crime that are problematic within a given area. It is clear based on the UCR data that, Property Crimes, Burglary and Larceny, pose the greatest risk on the District campuses. Assessing the CAP Index Past and Future projected crime scores indicates that, while slight variations may be occur from year to year, the overall average scores have been and will remain relatively similar over the next several years. As such, mitigation efforts aimed at reducing these types of crime on the campuses in the short-term will likely provide continuing mitigating benefits over the long-term.

Additionally, as mentioned at the end of Section 4.1 – FBI Uniform Crime Report (UCR), trends in criminal activity in the areas surrounding the campuses does not equate to increased crime on campus. Analysis of crime on college campuses in the United States indicate that the predominant threat comes from perpetrators of victimization crimes, whether against property or persons. In 1999, APBnews.com released a study that analyzed some key presumptions about college campus crime and its interrelationship to the surrounding community. Representative of nearly 1,500 college campuses, and using data collected from CAP Index, Inc, the Bureau of Justice, the FBI Uniform Crime Reports, and supplemental reports from various police departments, the study founded on two concepts: 1) that campus personnel use the surrounding areas and are therefore at risk of victimization equivalent to crime in those areas, and 2) that criminals from the surrounding area traveled onto campus to locate victims. The data presented raises the question whether the community setting has an effect on the level of crime on campus, and if the sources of campus crime are from the neighboring community. Certain studies on campus crime\(^5\) imply that we can use risk factors for a larger area to determine the risk of a smaller community within this larger community. While this seems intuitive and is often presented in the media as a likely cause for campus crime, further case studies have proven that these assumptions do not accurately represent the true nature or source of campus crime and in general are misleading. The most comprehensive of the campus crime case studies that followed\(^6\) found that in general, community crime rates and characteristics had little effect on campus crime. In fact, the characteristics of the campus had a stronger and more uniform effect on campus crime rates than the surrounding community; indicating that safety on the campus proper is where emphasis is most needed. The threats already present on campus accounted for most of the source of crimes, with the study finding that over 80% of the reported campus crimes were perpetrated by other students. The only exceptions to this finding were robbery and auto theft, where crime rates in the neighboring community did affect the statistical occurrences.


and frequency of these events on campus. It was concluded that these two categories of crime were committed by criminals who targeted both students and community residents alike, and were the two crimes that perpetrators were willing to travel the farthest to commit. In examining the UCR and CAP Index data provided above, it appears that criminal activity on both District campuses closely correlates with this national statistical data.

However, Mission College demonstrates considerably higher crime rates than the area surrounding West Valley College; and similarly, the Crimecast Details indicate that Mission College is roughly 3-4 times more likely to have an occurrence than West Valley College in many of the categories tracked. This fact is particularly noteworthy for two reasons. Firstly, it indicates that recommended security mitigation measures may not be applied equally to both campuses. Secondly, it is presumable that the greater vigilance and security awareness is required by students and staff on the Mission College campus simply through recognition of the security risks inherent with the neighborhood in which the campus is located.
5.0 SURVEY FINDINGS

5.1 Surveys
Utilizing the CPTED methodological approach described in Section 3, the survey process examined the District’s security program including: Police personnel roles and responsibilities; campus locations and vehicular access to and through the campuses; parking; existing electronic physical security systems; security related building architectural configurations; mechanical key control policy; and lighting and landscaping. General risks noted for these areas are discussed within the text that follows and will be further addressed in the Vulnerability/Risk Analysis section. Specific risks are included at the end of each applicable subsection and will likewise be addressed specifically in the Vulnerability/Risk Analysis and Recommendations sections where their potentiality and criticality will be equated and mitigation measures will be recommended respectively.

5.2 Campus Overviews

West Valley College
The West Valley College campus is bounded by Allendale Avenue to the North, East College Circle to the East, South College Circle to the South and Fruitvale Avenue to the West. Directly beyond the South and East College Roadways are residential neighborhoods surrounding the campus.

The residential neighborhood communities do not present a historically significant level of crime on the campus. However, it should be noted that crime demographics presented in Section 4.2 – Cap Index Report, should be considered when evaluating potential crime threats form the neighboring communities.

Vehicular and pedestrian traffic to the campus is unrestricted. Access to surface parking lots are open from the perimeter streets and parking control is accomplished through the utilization of parking permit machines located in each lot. There are some roads that traverse the Campus within the College Circle roadway, such as North Walk and Athletics Way. Access to these roads that lead to internal campus for maintenance and Police patrols are not controlled. However, unauthorized usage of these roadways was not a principle concern that was raised during the interview and survey process. As such, CATALYST has not specifically addressed remedial measures with regard to internal traffic controls.

Mission College
The Mission College campus is bounded on all sides by Mission College Boulevard loop. To the Southwest, the campus fronts along The Mercado- a major retail shopping center, and an adjacent office park. The campus is located in a well-traveled area in Santa Clara with the US 101 Freeway just to the South and the busy Lafayette Expressway and Great America Parkway to the West and
East respectively. To the West are densely concentrated residential neighborhoods while to the North, East and South are vast commercial tracts and corporate campuses. As a result of this positioning, the open Mission Valley Campus is extremely accessible to both vehicle and pedestrian traffic.

Vehicular and pedestrian traffic to the campus is unrestricted. Access to surface parking lots is open from these roadways and parking control is accomplished through the utilization of parking permit machines located in each lot. There are very few roads that run through the campus and the vast majority of traffic passing through the campus is pedestrian. The few roads which access the internal Campus area are used for maintenance, Police patrols, and deliveries. While these roads are uncontrolled, unauthorized usage by students, faculty and visitors was not expressed as a concern. As such, CATALYST has not specifically addressed remedial measures with regard to internal traffic controls.

5.3 Police Department and Security Personnel Staffing

Feeling safe on campus affects the overall quality of education and is interrelated to student recruitment, retention, and ultimately the financial viability of the institution. Campus Police staff generally exhibit the evolution of campus security from earlier roles of primarily property protection to the more current roles of professional policing with an effective humanist orientation. In the campus environment, once the crime has been committed, little can be done in the short-term to remedy the fear and anxiety caused as a result of that crime. Therefore, different from the traditional community policing approach of criminal apprehension, the Campus Police focus on crime prevention through their relationships on campus.

Security on the West Valley College and Mission College campuses is the responsibility of the District Police. The District Police Department consists of nine (9) sworn Officers, four (4) fulltime non-sworn personnel and between three to six part-time student Parking Enforcement Officers. Although District Police are authorized to employ up to eleven student Parking enforcement Officers at any given time, they currently only have three. This is primarily do in part to a Human Resources limitation which prevents students from working more than eighteen hours a week. As a result, many students interested in the position never apply because they cannot get enough work hours to make it worthwhile. The District Police Department is headquartered on the West Valley campus, but operates a Parking Enforcement office at Mission College. On the West Valley campus, the Police facilities are not centralized and at present the Police Administration function is housed in a separate building than the main Police Business Office. This creates a logistical and spatial disruption for the District Police. Additionally, neither of the Police facilities is centrally located, making both routine and emergency accessibility difficult.
During normal service hours an Office Assistant or Office Coordinator answers non-emergency calls coming into the Police Business Office. In some instances a Parking Enforcement Officer will answer the phone on a temporary basis during the day. At Mission District Police rely on Parking Enforcement Officers to answer the phone in the evening hours, but this is only the case when there are sufficient Parking Enforcement Officers on duty to handle this responsibility. Occasionally when staffing is limited, an “Office Closed” sign is placed on the door at night at the Mission Office. The District Police Business Office at the West Valley campus is open from 7:00 AM until 10:00 PM Monday through Thursday and 7:00 AM until 3:00 PM on Friday and weekends. Business Hours for the District Police Business Office at Mission are 9:00 AM through Noon and then 1:00 PM until 10:00 PM Mondays through Thursdays and 1:00 PM until 5:00 PM on Fridays. It should be noted that, when there are sufficient student employees available, the office is open in the evenings Mon. thru Thurs. until 10:pm. The District Police office at Mission is closed on weekends and holidays.

At West Valley College, Police Officers are on duty and patrol the campus from 6:30 AM until 2:00 AM everyday. From 10:00 PM until 2:00 AM including weekends and holidays, patrol coverage drops from two Officers to one Officer. This Officer is responsible for providing coverage of both campuses until the swing shift ends at 2:00 AM. It should be noted that response time between campuses is approximately 15-25 minutes depending on traffic. During operating hours from 6:30 AM to 2:00 AM, alarms are routed by the monitoring company to Santa Clara County Communications. They in turn provide dispatch to on duty District Police. After 2:00 AM, campus alarms at West Valley College are forwarded to the Santa Clara County Communications by the offsite monitoring company, while alarms at Mission College are routed to the Santa Clara City Police Department. Both the Sheriff Department and City Police Department provide dispatch to these alarms as deemed appropriate. In some instances incoming alarms are also routed to faculty Department heads (or responsible of record) who in turn often contact the janitorial staff for response, while simultaneously notifying the Sheriff or City Police Departments. As such, these employees essentially become the “first responder” as they physically go to and inspect the location where the alarm has been activated. While the majority of alarms are generally “false”- that is incidents not representing genuine threats-the tacit arrangement of having the faculty or custodial staff investigate alarms may be expedient, but it also represents a significant and dangerous liability. Alarms should always be regarded as real until determined to be otherwise. While many- if not most- alarms are false, the potential consequences of an employee encountering an actual crime-in-progress would likely be catastrophic in terms of both employee safety and District liability.

Both campuses support Safety Committees comprised of public safety, college staff, faculty and students that have been chartered to address and steer campus safety priorities. The Colleges
include Clery Act information in the schedule of classes and in the form of a hand-out brochure. However, it was noted that there is no formal security orientation or hand-out materials addressing common crime prevention measures for faculty or students at either of the District campuses. Traditionally, this type of information can be included as part of the admissions/enrollment process or can be made available at a centrally located Public Safety or Police Business Office.

While the current geographic configuration of District Police offices, the scheduling of business hours, officer coverage schedules, and the communications dispatch arrangement has been marginally sufficient to date, it is likely to become increasingly inefficient in meeting campus safety and security needs if the District undergoes even nominal growth. Similarly, with the implementation of proposed security solutions such as an integrated ACAMS, DVSS and Emergency Communications, the response and workload capacity of the current staff will be insufficient.

It is therefore CATALYST’s belief that Police understaffing, as well as the diversity of District Police responsibilities, represent the greatest area of potential risk found within the scope of this project. As such, the highest priority recommendation, included in Section 7 – Recommendations, is for increased Police staffing and a clear definition of Police roles and responsibilities.

5.4 Access Control and Alarm Systems

During the surveys, considerable time was devoted to examination and evaluation of the existing electronic card access control and alarm systems.

In general, buildings on both the campuses are of two architectural configurations. The first, which includes the majority of the buildings, is the traditional classroom configuration where each classroom has at least one door leading to the exterior. The second, which includes the Main building at Mission College, is the “corporate” configuration where primary ingress and egress is thorough a limited number of exterior doors with interior rooms only accessible from within the structure. These two architectural configurations present individual challenges when formulating a coherent plan for the implementation of electronic security systems. This will be further considered and elaborated upon within Section 7 – Recommendations.

Electronic security at both campuses is very limited and in most cases is not consistently deployed from building to building. Alarm management is primarily accomplished through standalone building/classroom alarm panels. Field devices attached to these alarm panels include alarm contacts on perimeter doors and, interior infra-red motion detectors, and in some cases, discrete audible microphones. General operation of each field device type is as follows:
• Door alarm contacts provide alarm input notification to the alarm panel when a perimeter door is opened when the alarm panel is in the armed mode.

• Motion detectors provide alarm notification to the alarm panel when motion is detected within the internal coverage area when the alarm panel is in the armed mode.

• Microphones monitor the space for any noise and provide alarm notification to the alarm panel when the device detects an audible change within the internal coverage area when the alarm panel is in the armed mode. Additionally, this proprietary system solution by Sonitrol, allows the off site monitoring Company to listen to the active microphone in an attempt to validate the cause of the alarm.

The alarm panels which control these field devices are activated and deactivated via standard pin coded alarm keypads located adjacent to the primary entrance locations inside the secure space. Faculty are provided a unique code to identify and record their specific system usage. However, the janitorial service is provided a general code which allows multiple users to share the same code. This is not an ideal solution as it immediately renders the system incapable of tracking the actual user who disarmed the system in the event of a material loss. Additionally, pin codes require no physical authentication, since the pin code can be verbally transmitted or written on the wall adjacent to the keypad. Some of the following concerns were expressed with regard to the use of keypads for arming/disarming the local alarm monitoring systems:

• High disposition of false alarms due to faculty having keys to monitored spaces, but not the keypad arm/disarm code.

• Faculty codes are often left in the system even after they are no longer employed by the College.

• Proper training may not be provided for effective usage of keypad arm/disarm operations.

• Not all usable entrances have keypad arm/disarm functionality.

• The monitoring system is often not re-armed upon leaving the secured space by users.

• Pin codes are often shared with unauthorized users.

When activated by a field device, the alarm panel transmits received alarm information to a third party central monitoring station that in turn notifies the designated respondents of the alarm event. If an alarm is received during hours when the campus is staffed with District Police, the offsite central station monitoring provider notifies the onsite Officer. If the alarm is received after 2:00 AM, the offsite central station monitoring provider calls the Santa Clara County Communications or Santa Clara City Police department depending on which campus is experiencing the alarm condition. Each agency then dispatches Officers to respond accordingly. While this topological configuration works, the delay in response time, especially during off-hours, severely hampers the ability to provide
effective Police response to an alarm event. Additionally, each of the alarm panels requires a separate monitoring contract with the third party central station/monitoring company. Exact financial figures for the aggregate alarm monitoring contracts was not verified during the surveys, but with two campuses the size of West Valley and Mission College, the costs can typically be upwards of $10,000 to $15,000 annually. Additionally, response to campus alarms by Santa Clara PD after 2:00 AM and before 6:30 AM is charged back to the District on a per occurrence basis. This associated cost is mentioned because it should be weighed when considering the recommendation of adding additional Police Officers to provide 7/24 presence on both the campuses.

In addition to the individual building/classroom alarm panels, some buildings on campus are also configured for access control. This application is used solely for entrance control as no alarm related information is connected to nor reported by the access control equipment. The entrance control function is accomplished through the utilization of electronic proximity tags (or swipe cards) and standalone electronic locking devices on the associated doors. The primary benefit of the system, as installed on the campus, is to limit the number of issued mechanical keys, relying on issued proximity cards instead. With this system, issued access control cards can be added and removed from the system, thereby obviating the need to mechanically re-key doors if critical keys are lost, stolen or not returned by personnel leaving employment with the College. In rare instances, some buildings utilize the card access system and alarm monitoring system in conjunction. This solution relies on the card access system to simply unlock the door, while the keypad is retained to arm/disarm the internal alarm monitoring system.

Some areas within buildings on campus often house information and property that require a higher level of physical and procedural security than can be effectively managed by simply securing the building perimeter. Whether personal information, financial records and data, computer and electronics, specialized equipment, laboratory equipment and machinery, applying the CPTED approach works equally well on sensitive internal areas, as well as when applied to the building perimeter and site. Electronic alarm and access control systems are often the first line of defense in protecting sensitive internal areas. Many of the individual classrooms, and specialty areas on both campuses currently utilize electronic alarm systems to provide an additional internal layer of security for the protection of high value and attractive nuisance materials as well as items that are of lower value, but are easily stolen. Further information on the benefits of integrated Access Control and Alarm Monitoring Systems is included in Section 7 – Recommendations.
5.5 Digital Video Surveillance System

In addition to the electronic alarm and access systems, sensitive internal and external areas often rely on Closed Circuit Television (VIDEO) Cameras to provide deterrence, monitoring capability, and recorded video for investigative purposes. Currently, neither of the District campuses incorporate video surveillance technology in the overall security approach. Properly deployed cameras and an effective recording program can provide an effective way to supplement the overall security solution. Areas that should be considered for video coverage in addition to electronic alarm monitoring systems include, but are not limited to the following: Admissions and Records, HR Department, Health Services, Counseling, Libraries, Computer Centers, Athletic Equipment Rooms, laboratory equipment, chemical and specimens storage areas, Maintenance Yards/Shops, the Pool area and Weight Rooms. As such, video cameras and recording equipment recommendations are included in Section 7 – Recommendations.

5.6 Emergency Communications Systems (ECS)

Emergency Call Stations

As part of the survey conducted by CATALYST, the locations of Emergency Call Stations were evaluated. Surface Parking Lots are equipped with Emergency Call Stations. Calls that originate from the Emergency Call Stations were previously routed to Santa Clara County Communications 24/7 every day of the week. Santa Clara County Communications then provided the appropriate dispatch to District Police, Santa Clara Sheriff Department or Santa Clara PD depending on the location and time of day. However, various problems were identified with regard to the emergency call stations. These include the lack of “equivalent” placement of Emergency Call Stations throughout the Campus and the overall lack of functionality. Currently, all of the call boxes are considered to be out of service by both Colleges and in some cases signage has been placed on each unit to indicate their lack of operation. However, in many cases the blue light indicator on top of the stations is still illuminated. This scenario can present a false sense of security, causing a student or faculty member to run towards an inoperable call station during an emergency situation. These items are referenced and specific recommendations to mitigate potential risks are included in Section 7 – Recommendations.

All Call Paging System

Currently, neither of the District campuses maintains, nor utilizes an all-call system for making campus wide broadcasts to students and faculty. All call paging solutions offer an effective tool for District Police and Administrators to immediately broadcast announcements during an emergency situation or during a required evacuation. Timely response is often the most critical element in a life safety emergency for everyone involved on campus. Additionally, these systems can also be used to announce a campus wide all clear once an incident has subsided. CATALYST feels the lack of this campus wide functionality places the District at a significant risk.
Classroom Telephone Communications

As part of the overall facility evaluation, Classroom's were given consideration with regard to emergency communications in addition to existing security measures. The existing Classrooms at both District campuses do not include any dial-up or ring-down telephone connections through the campus telephone switch. This scenario creates an isolated environment for students and faculty in the event of an in class incident. As such, consideration should be given to adding telephone communications in each classroom to provide faculty and students an immediate and effective way to contact District Police in the event of an emergency.

5.7 Mechanical Key System

Mechanical locks are the most common mechanisms for access control on doors and secured containers. They are found in the vast majority of residences, commercial businesses, educational institutions, and government facilities, and often serve as the primary protection against intrusion and theft. The justifications for this choice include low cost, simplicity of operation and reliability. All of these benefits will be negated however, if the locking systems are not efficiently planned and administered. The loss of a master key requires the replacement of all key cylinders within a facility at a potential cost of thousands of dollars. Similarly, the lack of control over key issuance and more importantly the return of keys could cost an organization an inordinate amount of money due to loss of assets, theft or destruction.

West Valley/Mission Colleges are facing the same challenges that many Community College's experience. The District utilizes multiple types of locks, masters and keys. While the Schlage “Primus” is utilized in limited quantities throughout the campuses, it has not been adopted as a District standard. This is unfortunate, since the “Primus” keys utilize a side cut configuration which creates a significantly more difficult key to duplicate.

In a recent research paper, “Cryptology and Physical Security: Rights Amplification in Master-Keyed Mechanical Locks” January 27, 2003, Matt Blaze of AT&T Research Labs, demonstrates that virtually all master keyed mechanical lock systems are vulnerable and a duplicate master key can be easily produced. The research paper can be downloaded from the Internet and is readily available. Creating a duplicate master key requires no special skill, leaves behind no evidence, and does not require engaging in recognizably suspicious behavior. The only materials required are a metal file and a small number of blank keys, which are easily obtained. Unfortunately, there is no simple or completely effective countermeasure that prevents exploitation of this vulnerability short of replacing a master keyed system with a non-mastered one or upgrading the keying system to a higher security level solution, such as a “Primus” side cut key configuration.
It is at the employee level that the lock and key system can be compromised. While the District has a policy, which states that all school property shall be returned upon termination or change in employment status, it is not clear that this policy is effective in ensuring the return of keys. Specifically, keys are often not returned by the former faculty member or staff prior to leaving employment by the College. Perpetual and chronic failure to have sub-master and office keys returned by employees has resulted in a condition in which the District cannot be certain who has keys to specific buildings, equipment rooms, offices, or other places in which confidential information or valuable assets are stored. When the elements of a key control program are compromised in an organization, re-keying a facility can be an ineffective and continually reoccurring mitigation strategy measure. As a result, recommendations for the establishment of a formal key control program are often included in security assessments. Fundamental elements of a Key Control Program include the following:

- A well-constructed cabinet is required, of sufficient size to hold the original key for all locks, extra keys, key blanks, and any additional keys that are in use in the company or for facility/department related functions. The cabinet should be installed in such a manner so as to be difficult, if not impossible, to be removed from the property.
- Designate a key control administrator (typically the Facilities and/or Department Manager) who oversees the key control program. The key control administrator should maintain a record of the permanent issuance of keys and the recipients of key should be required to sign for them.
- All employees should be informed that duplication of keys is not permitted and the loss of keys should be reported immediately.
- The College District must recover keys from personnel who are no longer employed by the College District. Typically the return of keys is included on the list of items to be processed in the exit interview. Often, policies are in place which prevent an employee from receiving their final check until all of the College’s assets are returned.
- All master keys should be numbered for control and accountability purposes.
- All keys should be stamped or engraved with a number for identification and accountability purposes and stamped "Do Not Duplicate".
- Periodic inventories should be conducted to verify that all keys are accounted for and are still in possession of the employee to whom they have been issued.
- The keying system should be built to so that individual keys open the fewest number of locks as practical.
- The issuance of Master and Grand Master keys should be strictly limited.
- A higher security key, such as a “Primus” should be utilized exclusively.
5.8 Lighting and Landscaping

Security Lighting Considerations

Factors, which affect Security Lighting, include, but are not limited to the following:

- Crime status of the area
- Nature of the site
- Degree of obstruction: Potential obstruction of light due to landscape design and building configurations.
- Ambient brightness of the surrounding area

Recommended Average Luminance Values for Security Lighting: The following Security Lighting levels are based on the IESNA Lighting Handbook, 9th Edition (2000). For purposes of this document, only horizontal luminance values are listed, other values such as vertical luminance and determination of light characteristics, i.e., color appearance, glare, shadows, etc., will be interpreted and coordinated with the Campus. For purposes of this document and IESNA luminance values, the Campus was considered a “Public Spaces” because it is an open campus to which there is unrestricted public access. While luminance can be measured in lux (lx) and in footcandles (fc), during the surveys all luminance values were taken in footcandles and all values in this report are presented in footcandles.

<table>
<thead>
<tr>
<th>IESNA – Recommended Lighting Levels</th>
<th>Footcandle (fc)</th>
<th>See Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Open Areas:</td>
<td>0.5 to 2</td>
<td></td>
</tr>
<tr>
<td>Building Entrances:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Inactive (normally locked)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Parking Lots</td>
<td>1.0 to 5</td>
<td>See Note 3</td>
</tr>
<tr>
<td>Covered Parking Facilities</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Parks, Plazas, and Pedestrian Malls</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Sidewalks and Footpaths, and</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Grounds Around Open Parking Lots</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Trails and Walkways</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Areas Around Open Parking Lots</td>
<td>0.6</td>
<td></td>
</tr>
</tbody>
</table>
Notes:
1. A footcandle is a unit used for measuring the amount of illumination on a surface. The amount of usable light from any given source is partially determined by the source’s angle of incidence and the distance to the illuminated surface.
2. The greater the brightness of the surrounding area, the higher the illuminance required to balance the brightness in the space.
3. Below 10 lx (1.0 fc), perceptions of personal safety deteriorate rapidly.

While the IESNA guidelines and recommendations for security lighting have been accepted as standards in lighting design and evaluation, the following is a listing of other standards, not developed solely for security requirements, which are often used for reference and comparison.

<table>
<thead>
<tr>
<th>Department of Army, Field Manual 3-19-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer Perimeter: 0.2</td>
</tr>
<tr>
<td>Restricted Area Perimeter: 0.4</td>
</tr>
<tr>
<td>Vehicular Entrances: 1.0</td>
</tr>
<tr>
<td>Pedestrian Entrances: 2.0</td>
</tr>
<tr>
<td>Sensitive Inner Areas: 0.2</td>
</tr>
<tr>
<td>Sensitive Inner Structure: 1.0</td>
</tr>
<tr>
<td>Open Yards: 2.0</td>
</tr>
<tr>
<td>Decks and Open Piers: 1.0</td>
</tr>
<tr>
<td>Grounds Around Open Parking Lots: 0.6</td>
</tr>
<tr>
<td>Trails and Walkways: 0.6</td>
</tr>
<tr>
<td>Areas Around Open Parking Lots: 0.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Architectural Graphics Standards– Recommended Lighting Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot-candle (fc)</td>
</tr>
<tr>
<td>Sidewalks: .02 to .09</td>
</tr>
<tr>
<td>Pedestrian Walkways: .05 to 2.0</td>
</tr>
<tr>
<td>Major Road &amp; Expressway: 1.0 to 2.0</td>
</tr>
<tr>
<td>Collector Road: .06 to 1.2</td>
</tr>
<tr>
<td>Parking Lots: 1.0 to 5</td>
</tr>
<tr>
<td>Local road: .04 to .09</td>
</tr>
<tr>
<td>Alleys: .02 to .06</td>
</tr>
<tr>
<td>Parking Lots: 1.0 to 2.0</td>
</tr>
</tbody>
</table>
During the lighting and landscaping survey, lighting levels were measured using an EXTECH Instruments, model 407026 light meter. All readings were taken in foot-candles and were adjusted based on the lighting source (tungsten, fluorescent, sodium, or mercury). Surveys of the Campuses were generally conducted between 9:00 PM and 12:00 PM. The surveys covered exterior areas of each campus, including building perimeters, building entrances, pedestrian walkways, open areas, and parking lots. The information presented in this assessment includes Security Lighting Standards and information, general security landscaping standards in relation to campus lighting, and light level readings in areas that were below the standards as measured during the survey.

Utilizing the previously referenced IESNA guidelines, the following is a listing of the lighting levels measured in areas that were found to be below the recommended levels. It should be noted that, during the surveys, numerous lights on both campuses were not functioning and/or had some nominal growth of vegetation blocking the luminaries.

Areas that were found to be below adequate levels as a result of non-functioning lights have been excluded from the following listing as the lighting levels are anticipated to be within an acceptable range once the repairs have been completed.

Within the following table, where a range of values is indicated, the range includes the lowest measured reading and the highest average reading. Where building entrances are noted, the measurements include readings at the entranceway as well as along the walkway or approach to the entrance. The readings include those that were found to be poor to marginal (poor = significantly lower than the standard, marginal = close to but lower than the standard).

<table>
<thead>
<tr>
<th>Building/Area</th>
<th>Location</th>
<th>Foot-candle (fc)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Valley College Campus</td>
<td>Art Lab Northeast walkway</td>
<td>.4</td>
<td>Marginal</td>
</tr>
<tr>
<td></td>
<td>New trail to East College Circle</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Parking Lot 1</td>
<td>Adjacent to Theater way</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Between light poles</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Location</td>
<td>Description</td>
<td>Condition</td>
<td>Status</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>Parking Lot 2</td>
<td>Along Allendale Ave.</td>
<td>0 to .3</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Between light poles</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Parking Lot 3</td>
<td>Along Main Entrance</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Southeast Walkway</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Between light poles</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Parking Lot 4</td>
<td>Along Main Entrance</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Between light poles</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Parking Lot 5</td>
<td>Along Admissions Way</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Along Fruitvale Ave.</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>East Walkway</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Parking Lot 6</td>
<td>Between light poles</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Parking Lot 7</td>
<td>Back Fence Line</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Between light poles</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Walkway on west side of East College Circle</td>
<td>0 to 1.0</td>
<td>Marginal</td>
</tr>
<tr>
<td>Tennis Courts</td>
<td>Parking</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Walkway between</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Volleyball Courts</td>
<td>Parking</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>PE Building</td>
<td>Gate 3</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Softball Field</td>
<td>Parking</td>
<td>0 to 15.0</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Language Arts/Social Science</td>
<td>Internal Walkways</td>
<td>0 to 6.0</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Central Campus</td>
<td>Grass Areas</td>
<td>0 to 6.5</td>
<td>Marginal</td>
</tr>
<tr>
<td>Building/Area</td>
<td>Location</td>
<td>Foot-candle (fc)</td>
<td>Rating</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Health Center</td>
<td>North Walkway</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Equal Opportunity Prog.</td>
<td>Walkway-Entrance</td>
<td>0 to .3</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Business Division</td>
<td>North Walkway</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Campus Center</td>
<td>Northwest Walkway</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>South Entrance</td>
<td>0 to .3</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Golf Range</td>
<td>West Walkway</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Tutorial Services</td>
<td>Emergency Exits</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Science Math</td>
<td>Perimeter Walkways</td>
<td>0 to 6.0</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td></td>
<td>Interior Walkways</td>
<td>0 to 2.0</td>
<td>Poor</td>
</tr>
<tr>
<td>Admissions/Records</td>
<td>Benches/Bike Racks/Quad Area</td>
<td>0 to .8</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Community Education</td>
<td>Southeast Walkway</td>
<td>0</td>
<td>Poor</td>
</tr>
</tbody>
</table>

**Mission College Campus**

<table>
<thead>
<tr>
<th>Building/Area</th>
<th>Location</th>
<th>Foot-candle (fc)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot A</td>
<td>Between light poles</td>
<td>0 to 5</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Roadway between Lot A and</td>
<td>Learning Resource Center</td>
<td>0</td>
<td>Poor</td>
</tr>
<tr>
<td>Parking Lot B</td>
<td>Between light poles</td>
<td>0 to 0.3</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Parking Lot C</td>
<td>Between light poles</td>
<td>0 to 0.6</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Parking Lot E</td>
<td>Between light poles</td>
<td>0 to 0.6</td>
<td>Poor-Marginal</td>
</tr>
<tr>
<td>Parking Lot D</td>
<td>Between light poles</td>
<td>0 to 0.6</td>
<td>Poor-Marginal</td>
</tr>
</tbody>
</table>
Parking Lot D | Between light poles | .5 to 1.2 | Marginal
---|---|---|---
Main Entry | Quad Area | 0 | Poor
Gymnasium | Emergency Exit | 2 | Marginal
Central Plant | Entire area | 0 | Poor

Recommendations for improving and or rectifying the problematic areas noted above are included in Section 7 – Recommendations.

The following tables denote the location and symptoms of non-operational fixtures identified during the night survey.

<table>
<thead>
<tr>
<th>West Valley College Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building/Area</td>
</tr>
<tr>
<td>Parking Lot 1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Parking Lot 2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Parking Lot 3</td>
</tr>
<tr>
<td>Parking Lot 7</td>
</tr>
<tr>
<td>Bus Stop</td>
</tr>
<tr>
<td>Physical Ed Building</td>
</tr>
<tr>
<td>Language Arts</td>
</tr>
<tr>
<td>Equal Opportunity Prog.</td>
</tr>
<tr>
<td>Building/Area</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Learning Services</td>
</tr>
<tr>
<td>Admin. of Justice</td>
</tr>
<tr>
<td>Computer Rooms</td>
</tr>
<tr>
<td>Admissions and Records</td>
</tr>
<tr>
<td>Counseling</td>
</tr>
<tr>
<td>Social Science</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Library</td>
</tr>
<tr>
<td>Theater Arts</td>
</tr>
<tr>
<td>Science Math</td>
</tr>
<tr>
<td>Technology Center</td>
</tr>
</tbody>
</table>

**Mission College Campus**

<table>
<thead>
<tr>
<th>Building/Area</th>
<th>Location</th>
<th>Symptom</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot A</td>
<td>Fixture # D-4</td>
<td>Fixture out</td>
<td></td>
</tr>
<tr>
<td>Parking Lot B</td>
<td>Fixture # C-1</td>
<td>Fixture out</td>
<td></td>
</tr>
<tr>
<td>Parking Lot C</td>
<td>Fixture # B-1</td>
<td>Fixture out</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixture # B-2</td>
<td>Fixture out</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixture # B-3</td>
<td>Fixture out</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixture # B-9</td>
<td>Fixture out</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixture # B-11</td>
<td>Fixture out</td>
<td></td>
</tr>
</tbody>
</table>
## Parking Lot D
- Fixture # A-3: Fixture out
- Fixture # A-5: Fixture out

## Parking Lot E
- Light poles on lot: Fixture out, Multiple

## Science Building
- Near perimeter road circle: Fixture out, Multiple
- Interior roadway: Fixture out, Multiple

## Child Develop. Center
- Near perimeter road circle: Fixture out, Multiple

## MT Building
- Perimeter Circle Roadway: Fixture out
- Building 13-16: Fixture out, Multiple
- Building 19-24: Fixture out, Multiple

## Gymnasium
- Walkways: Fixture out, Multiple
- Roadway: Fixture out, Multiple

## Tennis Courts
- Roadway: Fixture out

## Central Plant
- Roadway: Fixture out

### Landscaping Considerations:
When evaluating security lighting, the nature and use of the site, ambient brightness of the surrounding areas, obstructions from buildings, and landscape design are additional factors to consider. Since landscaping directly correlates to lighting effectiveness, CATALYST evaluated any landscaping interferences with lighting or normal viewing ability. The CPTED precept of “natural surveillance” promotes features which enable one’s ability to view the space around them, maximize visibility, and thus increase one’s awareness and reduce the vulnerability to crime. Landscaping, particularly the type of tree, shrub and/or ground cover, plant location, and growth patterns all affect one’s natural surveillance and self-defense capabilities. Landscaping should not become so dense that it compromises the ability of light to penetrate or a clear line of sight. Sensible maintenance for foliage and limb removal can be achieved to balance security concerns and not disrupt the aesthetic value or atmosphere created by the landscape.
There are four basic guidelines that should be employed when landscaping for natural surveillance. These guidelines are intended to provide general strategies to be considered when evaluating landscaping in specific areas. When applied with common sense, giving due consideration to both the aesthetic value of the landscaped area and the level of security required for that area, these guidelines serve to strike a balance between landscape and security philosophies.

- Ground Cover and low shrubs should be trimmed as low as possible to maintain the general landscaping philosophy of the building or area but should generally not be allowed to exceed 24” in height.

- Trees should be pruned so as to prevent branches and leaves from directly obscuring light sources (approximately 10’ clear radius around light fixtures) as well as from indirectly obscuring light sources from the line of site on pedestrian walkways.

- Trees and tall shrubs should be pruned to open a clear line of site between the ground and the underside of branches. Typically, branches should be pruned to clear a minimum of 6’ above the ground.

- Trees and shrubs adjacent to buildings should be pruned to allow a clear line of site between the foliage and the building (approximately 24” - 36”).

During the site survey process CATALYST evaluated landscaping as it related to lighting and security. The landscaping in the parking lots and generally around the perimeter of the buildings was found to be well maintained and conducive to effective lines of sight and natural surveillance. There were, however, a limited number of areas where landscaping maintenance could be improved to allow increased light transmission. These areas are identified below:

<table>
<thead>
<tr>
<th>Building/Area</th>
<th>Location</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot 1</td>
<td>Near Theater Way</td>
<td>Trees limbs are obscuring fixtures</td>
</tr>
<tr>
<td>Parking Lot 2</td>
<td>Near Science way</td>
<td>Trees limbs are obscuring fixtures</td>
</tr>
<tr>
<td>Volleyball</td>
<td>Along roadway</td>
<td>Trees limbs are obscuring fixtures</td>
</tr>
<tr>
<td>Child Care Lab</td>
<td>Near bridge</td>
<td>Trees limbs are obscuring fixtures</td>
</tr>
</tbody>
</table>
Mission College Campus

<table>
<thead>
<tr>
<th>Building/Area</th>
<th>Location</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitality Management</td>
<td>Fixture W-42</td>
<td>Trees limbs are obscuring fixtures</td>
</tr>
<tr>
<td>Child Development</td>
<td>General</td>
<td>Shrub and vegetation are overgrown</td>
</tr>
</tbody>
</table>

Recommendations for improving and or rectifying the problematic areas noted above are included in Section 7 – Recommendations.
6.0 VULNERABILITY/RISK ANALYSIS

Programmatic, operational, procedural, and physical security recommendations are most suited to the District's real security needs when based on a thorough understanding and appreciation of the actual and perceived threats and vulnerabilities. Therefore, CATALYST has developed a Vulnerability/Risk Analysis, based on the findings revealed as part of this assessment.

Vulnerability/Risk Analysis (V/RA) is an effective tool used in security evaluation to systematically assess an organization’s vulnerabilities and determine levels of risk resulting from these vulnerabilities. In developing a V/RA, information on various threats, both perceived and actual, is collected, evaluated, and prioritized. Information is gathered relevant to the District's policies, procedures, and systems as they apply to these threats. Finally, the prioritized list of threats and the areas of vulnerabilities are used to determine levels of risk. Recommendations can then be made to mitigate the vulnerability and thereby lower the associated level of risk. The primary goal, therefore, of the V/RA is to obtain and evaluate pertinent information such that actual and perceived threats are identified and appropriate mitigation recommendations can be made to reduce the level of risk to the District.

In addition to providing the information necessary for the development of the mitigation recommendations, a secondary goal of a V/RA is to serve as a benchmark to determine the real reduction of risk through the implementation of mitigation efforts. Over time, as threats and vulnerabilities change, a benchmark V/RA can be useful in evaluating the effectiveness of implemented mitigation efforts in reducing risks from new threats. The benchmark V/RA will often show that the application of a system, policy, or procedure to reduce a lower-risk level vulnerability will also mitigate higher-risk level, and as yet unidentified, vulnerabilities.

6.1 Definitions

**Risk:**

Although risk is associated with many activities, the meaning of the term risk in this report is limited to the uncertainty of a non-business loss. This includes the harm to staff and students, loss or destruction of physical property, and loss or damage of reputation and thereby financial stability. Risk analysis includes examining the asset vulnerability associated with the probability and criticality of the potential crime threats.

**Assets:**

Although risk is associated with many activities, the meaning of the term risk in this report will be limited to the uncertainty of a non-business loss. This includes the loss or destruction of District property, harm to students and personnel, or the loss of earned stature as an academic institution of
choice. On a college campus, those loses will result from victimization crimes such as theft, vandalism, assault, sex crimes, etc. Risk analysis includes examining the asset vulnerability associated with the probability and criticality of the potential threats that could result in these crimes. As an initial step to identify what crimes may be possible on campus, it is relevant to define the target assets that attract those crimes.

Most campuses contain high value material such as computers, projectors, laboratory and athletic equipment, and books and materials. These items are readily recognized as valuable assets however; the physical building structures themselves and the fittings to those buildings such as lighting, telephones, landscape structures, and artwork also have replacement or repair values that can financially burden the District in the event of a loss. Another key asset, and possibly the most critical, is the earned reputation of the institution. Although of nearly irreplaceable value, this asset is often overlooked since it is not a tangible material item. Gained through the long-term effort of the institution to establish a vibrant academic atmosphere within a physically safe environment, the College reputation is arguably the key asset to protect since it is this asset that consistently and dependably attracts enrollment and tuition to the institution.

When defining the campus assets that merit security measures to ensure their viability and well-being, the reputation of the College is among the highest in value. Since the reputation asset is formed primarily from the combined resources of the employees and students that create the educational program of the institution, protection of the reputation asset is achieved as a direct result of protection of the people who attend and work at the College. Protection of the campus population is first achieved by establishing this asset as a priority within the design of the SMP. Certainly there are also valuable material assets identified for various levels of security protection, but without the student body and staff to utilize them, their value diminishes. From various perspectives, protection of the campus population is justifiable as the cornerstone of the SMP.

Likewise, the acts of theft or vandalism have a greater impact than strictly the direct material costs, since the fear of these victimization crimes is what erodes the campus environment. As a result, total valuation of the campus material assets must be considered within the larger concept of the College’s image and well-being when considering the worth of loss mitigation measures.

Based on the campus surveys, the asset groups that will be addressed in the SMP are the following:

- Reputation and standing among institutions of higher learning.
- Safety of Students and Staff as well as the security of personal information.
- High concentration areas of material value items, such as the Theatre, Libraries, and Maintenance Yard.
• Athletic equipment – specialty training equipment, team sports equipment.
• High value electronic items – computers, monitors, audio/visual equipment.
• High value laboratory items – measuring and diagnostic equipment, specialty tools, specimens.
• Infrastructure and attractive nuisance equipment – public and emergency telephones, parking permit dispensers, vending machines, low value lab equipment.

**Threats:**
As discussed in the Concluding Analysis of Section 4 and recapitulated here, the District is susceptible to crime threats that can be primarily be classified as Part 1 and 2 Property Crimes (particularly Burglary, Larceny and to a lesser extent, Motor Vehicle Theft) which pose the greatest risk on the District College campuses.

Although not directly represented in the statistical data, but expressed by those interviewed during surveys, is a need to increase the level of personal safety when working within their buildings, offices and classrooms. As the campus population becomes larger and more diverse, the Campus Police Department is covering a wider range of responsibilities, and the stakes for higher education are rising.

Based on the combined information of statistical data and survey data, the primary threats to both Mission College and West Valley College are listed here in order of magnitude:
• Larceny – property theft that does not involve force or fraud
• Vandalism
• Burglary – property theft from buildings and vehicles including forcible entry
• Auto theft
• Aggravated Assault

By addressing the higher magnitude of the listed threats above, the broader spectrum of Part 1 and Part 2 offenses will also be coincidentally mitigated. Through the recommendations described in the following sections of the SMP the level of risk from all types of victimization crimes will be reduced while targeting specific known problem threats from within the campuses, as well as from the general communities surrounding them.

**Probability:**
Probability refers to the chance or likelihood that an incident or loss will occur, based on a proven history, the frequency of opportunity, and the target’s attractive value. By using a mathematical
statement to prioritize risk, probability greater than zero (no event occurs), and less than one (event
definitely occurs), we develop the following scale for $1 > P > 0$:

- **0.99 = Virtual certainty that the event will occur.** The event has happened before, and there
is no viable impediment to reoccurrence.
- **0.75 = Very probable that the event will occur.** The event has happened before or a clear
opportunity exists, and the mitigation measures are not sufficient to prevent.
- **0.50 = An average probability exists for the event to occur.** Although an opportunity exists,
the event does not have an historical statistic of occurrence and any mitigation measures are
incidental rather than purpose driven.
- **0.25 = A low probability exists for the event to occur.** An opportunity is possible but unlikely
and/or the potential target has low value.
- **0.01 = Very improbable that the event will occur.** An opportunity is not present or potential
target is of low value.

**Criticality:**

Critically measures the impact of a loss in financial terms and is corollary to business continuity. The
resulting calculation reflects the importance of the loss to the survival or existence of the organization.
The factor of criticality is expressed as a percentage from 0% to 100% using the following scale:

- **100% = Fatal to the organization.** Total recapitalization or abandonment.
- **75% = Very serious damage to the entity.** Major investment policy change, loss of life or
serious injury to personnel, or major data (intellectual property) compromise.
- **50% = Average impact.** An injury to personnel and/or noticeable balance sheet impact.
- **25% = No personnel injuries.** Loss is covered by normal contingency reserves.
- **0% = Unimportant or irrelevant consequence.**

### 6.2 Vulnerability Analysis

Utilizing the threats as defined above, the vulnerability analysis combines these with the factors of
criticality and probability to render a product of risk (as a percentage from 0% to 100%) that can be
used to guide prioritize mitigation needs in a quantifiable format.

This SMP applies the vulnerability analysis method to the most prominent offenses on campus in
order to prioritize mitigation needs in a quantifiable format. The following table lists the calculations
and results for the leading statistical Part 1 and Part 2 offenses:
### Part 1 Offenses

<table>
<thead>
<tr>
<th>Offense</th>
<th>Probability</th>
<th>Criticality</th>
<th>Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larceny</td>
<td>0.99</td>
<td>25%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Burglary</td>
<td>0.99</td>
<td>25%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Auto Burglary</td>
<td>0.50</td>
<td>25%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Grand Theft</td>
<td>0.25</td>
<td>50%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>0.25</td>
<td>75%</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

### Part 2 Offenses

<table>
<thead>
<tr>
<th>Offense</th>
<th>Probability</th>
<th>Criticality</th>
<th>Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-aggravated Assault</td>
<td>0.99</td>
<td>25%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Vandalism</td>
<td>0.99</td>
<td>25%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Harassment</td>
<td>0.99</td>
<td>25%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Trespassing</td>
<td>0.99</td>
<td>25%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Traffic and Parking Violations</td>
<td>0.99</td>
<td>25%</td>
<td>24.8%</td>
</tr>
</tbody>
</table>

This data distribution shows the prioritization of offenses occurring on campus that can be used to guide the mitigation effort of the SMP. It is also clear that the categories of crime carry an approximately equal weight when allocating risk mitigation resources; and the SMP will use this equality in the rankings as the guideline for recommendations.

### 6.3 Susceptibility of Assets

By examining the risk factors for each of the established threats in conjunction with the assets as previously defined, the susceptibility of each asset to various risks can be determined. Below, each of the identified assets is listed with the threats that apply to that asset.

**Asset:**

**Reputation:**

All Threats (including high criticality threats not identified due to lack of historical occurrences – homicide, forcible rape, robbery, arson, etc.)

**Student and Staff Safety:**

All Threats (including high criticality threats not identified due to lack of historical occurrences – homicide, forcible rape, robbery, arson, etc.)

**Concentration of Material Items:**

Burglary, Larceny, Vandalism (including high critically threats not identified due to lack of historical occurrences – Arson)
Athletic Equipment  Burglary, Larceny, Vandalism (including high critically threats not identified due to lack of historical occurrences – Arson)

High Value Electronic Items  Burglary, Larceny, Vandalism (including high critically threats not identified due to lack of historical occurrences – Arson)

High Value Laboratory  Burglary, Larceny, Vandalism (including high critically threats not identified due to lack of historical occurrences – Arson)

Infrastructure and Attractive Nuisance Items  Burglary, Larceny, Vandalism

This susceptibility determination is useful in developing risk mitigation recommendations as it provides a guide as to which assets can be protected by the mitigation strategy applied to counter each of the specific threats. It is worth noting that the risk factors established for each of the potential threats is relatively equal and that these risk factors are not substantially different between the two campuses, even though the surrounding communities have markedly different crime rates and Cap Index scores. As a result, the recommendations included within the next section can be uniformly applied to both campuses and the District can expect the benefit of these mitigation measures to be mutually realized at both campuses.
7.0 RECOMMENDATIONS

The recommendations included in this Section are based on the Crime Statistics information in Section 4, Survey Findings in Section 5, the Vulnerability/Risk Analysis in Section 6, and are applied using security industry standard best practices as found in the Protection of Asset Manual.\(^7\) As a precursor to reviewing the recommendations, it is useful to understand the four methods used in mitigating risk.

- **Risk avoidance** eliminates an unacceptable risk to the company or organization by removing the cause of the specific risk completely. However, risk avoidance can only be applied when the cause of the risk provides little or no beneficial use to the organization.

- **Risk reduction** decreases the risk by minimizing the probability of a potential loss event through the reduction of situational criminal opportunity. This is the most commonly employed risk mitigation strategy and includes mitigation measures such as increasing lighting, locked and/or providing electronic access control devices to applicable doors, developing programs, policies and procedures directed toward increasing awareness of the employee population.

- **Risk transfer** involves moving the financial impact of a loss to an insurance company. Seemingly the easiest strategy, purchasing insurance to cover the payments to injured victims cannot compensate for the criminal act or loss of life. Also the institution may still be held responsible for negligence or civil misconduct, and the financial impact of insurance rates to cover these loses may be unfeasible. Risk transference should only be considered after the loss probabilities have been reduced as much as possible using cost effective security and safety measures.

- **Risk acceptance** is a deliberate managerial decision to accept a potential vulnerability by not taking measures to mitigate the known risk. This is a conscious administrative decision to set aside the resources to address the criticality of the potential loss. Acceptance is typically done with smaller risks having only financial consequences.

The District has employed a combination of these strategies to address many of the identified vulnerabilities, yet certain vulnerabilities are still evident. The following recommendations therefore focus on **Risk Reduction** strategies to address the remaining vulnerabilities and/or to increase the mitigating benefits of the measures currently emplaced. These recommendations are divided into subsections and listed by order of priority.

7.1 Police Department and Security Personnel Recommendations

As mentioned in Section 5.3 – Police Department and Security Personnel Staffing, the current staffing levels within the District Police Department are not sufficient to effectively monitor and police the campuses. Additionally, the current response to alarm conditions after hours is ineffective and represents the greatest liability to the District. It should also be understood that the benefits from the majority of the subsequent recommendations in this Security Master Plan, in particular, those that entail implementation and/or modification of electronic systems, will not be realized by the District unless Police staffing levels are increased and the Police Business Office is modernized to provide effective monitoring of these systems.

Effective monitoring and control of electronic physical security systems is an essential element to a complete Security Program. The subsequently recommended Access Control and Alarm Monitoring System (ACAMS) and Digital Video Surveillance System (DVSS) can function in a stand-alone mode or in conjunction with an actively monitored Police Business Office (PBO). While standalone electronic security measures provide an excellent mechanism for post incident investigations, CATALYST believes that the full benefit of the system features will not be realized unless the systems are being actively monitored. By modernizing and staffing a PBO either at the Mission College campus or within the current District Police Business Office on the West Valley College campus, inherent threats to District property, employees, students, and visitors can be prevented or deterred while in progress. The proactive monitoring and response by District Police will help promote a more positive attitude towards campus safety and security.

Therefore, the following represents one of the highest priority recommendations within the SMP.

A. Increase the number of sworn Officers on staff to provide a minimum of one on-duty Officer per campus from 6:30 AM to 2:00 AM, seven days a week.

B. Increase the number of sworn Officers on staff to provide one on-duty Officer to provide coverage of both campuses from the hours of 2:00 AM to 6:30 AM.

C. Increase the number of un-sworn Police employees to provide administration and active monitoring of the ACAMS, DVSS and ECS 24 hours a day, seven days a week.

7.2 Police Business Office Recommendations (PBO)

A fully implemented and staffed PBO will provide the District with the ability to act in a proactive manner 24 hours a day, 7 days a week. Vulnerabilities, which otherwise would be unmitigated due to latent alarm response time, can be more effectively addressed by District Police. Additionally, the PBO staff would have the ability to monitor both campuses and view live DVSS upon alarm call-up, allowing a more effective response to alarm conditions. As a result, response to fewer nuisance alarms will be possible and trips between campuses can be minimized. Incoming alarm conditions
can be directly forwarded to the on campus Officer or can be routed to County Communications/Santa Clara Police Department for dispatching of District Police.

Specific recommendations for the PBO should include the following:

A. An adequately sized security console where all District security related system monitoring and communications equipment are housed, including but not limited to the following:
   - Access Control and Alarm Monitoring System
   - Digital Video Surveillance System
   - All Call Paging System
   - Telephone communications connected to the campus telephone switch
   - Campus radio communications with District Police Officers
   - Multi-line phone with digital caller ID display.

B. Separate equipment racks in a PBO Equipment Room where the District security systems infrastructure is housed with appropriate UPS back-up.

C. A location within the PBO dedicated for incident/report writing.

D. Sufficient storage space for staging emergency response equipment.

E. Develop a formal security awareness and procedural manual which can be distributed to incoming student and faculty members.

While the systems discussed in subsequent Sections will provide an increased level of safety and security on the West Valley/Mission Community College campuses, CATALYST recommends that these systems only be implemented after the recommendations in Section 7.1 and 7.2 – Police Department and Security Personnel Staffing and Police Business Office Recommendations are implemented. The District has an obligation to provide adequate safety and security to its faculty, staff and students when on campus. Installing electronic security systems without establishing appropriate staffing levels to monitor and respond to events generated by these systems, will not only greatly reduce their effectiveness, but it may also create a greater liability for the District than what currently exists today. Implementation of electronic security systems naturally increases the sense of safety and security of individuals on campus. However, if events generated by these systems are not responded to in a timely and effective manner, the perceived sense of security is found to be false and the overall perception of security on campus will be greatly diminished. Therefore, under the assumption that the recommendations on Section 7.1 and 7.2 are implemented, CATALYST offers the following recommendations for area specific criteria to be used in the evaluation of electronic security system implementation in New Building Construction, Existing Building Renovations, Parking Areas, and Open Campus Areas. The following subsections should be considered of equal priority and implemented in an order that is feasibly and financially practical for the District.
7.3 Access Control and Alarm Monitoring System (ACAMS)

ACAMS have evolved into highly sophisticated yet user-friendly tools to effectively and efficiently manage, control, and secure facilities and the surrounding site. When properly designed and installed, modern systems increase the ability to properly detect, lock down, delay and respond to potential security breeches. In general, a well developed electronic security program elevates the effectiveness of building management, increases the security of faculty, staff, students and property, and raises the effectiveness of law enforcement in apprehending and prosecuting individuals who commit crimes in and around the campuses.

While some limited card access is deployed throughout the District campuses, these systems are not integrated with each other, nor do they provided a cohesively managed alarm monitoring function. As previously mentioned in Section 5.3, alarms are not addressed and responded to in a safe and consistent manner. To best address this issue, CATALYST recommends deploying a centralized ACAMS throughout each of the District campuses to provide access door controls and an integrated alarm monitoring function. This approach would entail: reconfiguration of the alarm points currently tied to local alarm panels so that they report directly to the ACAMS; installation of an ACAMS server and client workstation(s) within the PBO; and conversion of existing alarm points from individual buildings and classroom (at locations where access control is not financially justifiable) to the ACAMS. By creating a realistic long-term implementation strategy, the District will be able to effectively migrate the existing local alarm systems to the centralized ACAMS, which will increase the effectiveness and timeliness of Police response to alarms and at the same time reduce the costs associated with each local alarm contract. CATALYST therefore recommends that the District begin the implementation planning for a centralized ACAMS in conjunction with a centralized Digital Video Surveillance System. Additionally, expansion of the existing Emergency Communication System should be integrated in conjunction with the ACAMS, which is detailed in the following sub-sections.

New Building Construction and Existing Building Renovation

The intent of the ACAMS is to provide the District with security system infrastructure that can be managed more effectively and economically. The ACAMS will provide a more secure environment for faculty, staff and students, and increase the ease with which individuals move on and through the campus. The ACAMS will also reduce the risk from theft and vandalism, thereby potentially reducing the risk of negative publicity caused by crime. Further, the ACAMS will reduce the burden on staff by providing a electronic means of locking/unlocking buildings and arming/disarming buildings and sensitive internal areas on a user definable time schedule as opposed to physically locking/unlocking doors and arming/disarming alarm panels, as is currently done throughout the majority of the
The ability to remotely lock down the campus electronically also increases the District Police’s ability to more effectively control a potentially dangerous on campus situation. Lastly, the ACAMS will prevent the need to re-key doors when a master key is lost or not returned to the college.

New building construction provides an excellent opportunity for the implementation of campus security systems. Yet, it should be understood that there are two primary types of architectural configurations used on college campuses and the application of electronic security systems differ between the two. The first configuration has a limited number of outside main entrances to each building, with interior access to classrooms from corridors. The second configuration has both interior and exterior entry doors to each classroom. Historically, new buildings of both configurations have been equipped with burglar alarm systems or microphone devices that report to a third party monitoring station. Keypads included as part of these systems are used to arm/disarm the building. CATALYST recommends that use of arming/disarming keypads continues, but with the migration of security alarm point field devices reporting to the ACAMS rather than local alarm panels. The ACAMS will provide the ability to manage the issuance and removal of pin numbers globally, preventing the need to re-program multiple standalone panels if someone has access to multiple areas, each with individual alarm panels. In addition to the keypad functionality, in buildings where the architectural configuration is financially conducive to the use of access control card readers (those with a limited number of ingress and egress routes), CATALYST recommends that perimeter access control be configured through the ACAMS with the use of access card readers and electronic locking mechanisms.

As with most new building construction, the existing District campus buildings are typically of two different architectural configurations where the ACAMS criteria are unique to each. The majority of the buildings on the campuses are currently equipped with burglar alarm systems. These burglar alarm systems are from various different manufacturers, and are currently all being monitored under different third party alarm monitoring accounts. As such, CATALYST recommends that the existing alarm field devices as well as the keypads used to arm/disarm buildings and classrooms be reconfigured to report directly through the ACAMS.

With these recommendations in mind, the following outline details specific criteria that should be considered with reference to the particular type of building considered for construction or renovation.

**New Building - Type 1 Construction (limited points of ingress/egress)**

A. Install ACAMS controllers and ancillary equipment to provide alarm and control point integration with the new access control and alarm monitoring devices in the building.
Typically, the ACAMS controllers will be installed in Telephone/Data Rooms and will be connected to and configured on a secure VLAN across the District Ethernet LAN.

B. Configure Main Building Entrances with a card reader/keypad, door alarm contacts, electronic locking hardware and request-to-exit (REX) device. (Card reader/keypads will be utilized for access control and alarm zone arming/disarming.)

C. Configure Perimeter Doors not associated with card reader/keypad locations with alarm contacts.

D. Configure Telecommunication/Data Room doors with card reader, door alarm contacts, electronic locking hardware and REX device.

E. Configure internal area entry doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary entry/emergency exit doors with door alarm contacts, which contain any of the following physical items:
   1. Cash.
   2. Equipment of high dollar value (Computers, projectors, etc.).
   3. Potentially dangerous equipment.
   4. Hazardous equipment.
   5. Items that present an attractive nuisance.
   6. Laboratory equipment and chemicals.
   (Note: Internal areas that will also be equipped with non-door related security devices or with doors equipped with alarm contacts only may require a card reader/keypad for internal alarm arming/disarming functionality.)

F. Configure internal area entry doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary entry/emergency exit doors with door alarm contacts, which contain any of the following data service and document items:
   1. Campus computer network equipment and infrastructure.
   2. Human Resources records.
   3. Accounts receivable records.
   4. Sensitive information that could be potentially damaging to the District if made public.
   (Note: Internal areas that will also be equipped with non-door related security devices or with doors equipped with alarm contacts only may require a card reader/keypad for internal alarm arming/disarming functionality.)

G. Configure interior rooms with security alarm devices (motion detectors, glass break detectors, etc., which house any of the following items:
   1. Cash.
   2. Equipment of high dollar value (Computers, projectors, etc.).
   3. Potentially dangerous equipment.
   4. Hazardous equipment.
5. Items that present an attractive nuisance.
6. Laboratory equipment and chemicals.
7. Campus computer network equipment and infrastructure.
8. Sensitive information that could be potentially damaging to the District if made public.

(Note: These types of devices are only necessary in locations that have multiple methods of unprotected access and/or where anti-loitering is required.)

H. Install door alarm contacts on Electrical Room/ Closet doors.
I. Install alarm notification devices (duress/robbery buttons) at locations where money is handled or there is a high probability of a hostile work environment.

New Building - Type 2 Construction (multiple points of ingress/egress)

A. Install ACAMS controllers and ancillary equipment to provide alarm and control point integration with the new access control and alarm monitoring devices in the building. Typically, the ACAMS controllers will be installed in Telephone/Data Rooms and will be connected to and configured on a secure VLAN across the District Ethernet LAN.

B. Configure Perimeter Doors with alarm contacts and keypads to provide individual alarm zone arm/disarm functionality.

C. Configure Telecommunication/Data Room doors with card reader, door alarm contacts, electronic locking hardware and REX device.

D. Configure internal area doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary entry/emergency exit doors with door alarm contacts, which contain any of the following physical items:
   1. Cash.
   2. Equipment of high dollar value (Computers, projectors, etc.).
   3. Potentially dangerous equipment.
   4. Hazardous equipment.
   5. Items that present an attractive nuisance.
   6. Laboratory equipment and chemicals.

(Note: Internal areas that will also be equipped with non-door related security devices or with doors equipped with alarm contacts only may require a card reader/keypad for internal alarm arming/disarming functionality.)

E. Configure internal area entry doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary entry/emergency exit doors with door alarm contacts, which contain any of the following data service and document items:
   1. Campus computer network equipment and infrastructure.
   2. Human Resources records.
   3. Accounts receivable records.
4. Sensitive information that could be potentially damaging to the District if made public.  
(Note: Internal areas that will also be equipped with non-door related security devices or with 
doors equipped with alarm contacts only may require a card reader/keypad for internal alarm 
arming and disarming functionality.)

F. Configure interior rooms with security alarm devices (motion detectors, glass break detectors, 
etc., which contain any of the following items:

1. Cash.
2. Equipment of high dollar value (Computers, projectors, etc.).
3. Potentially dangerous equipment.
4. Hazardous equipment.
5. Items that present an attractive nuisance.
6. Laboratory equipment and chemicals.
7. Campus computer network equipment and infrastructure.
8. Sensitive information that could be potentially damaging to the District if made public.  
(Note: These types of devices are only necessary in locations that have multiple methods of 
unprotected access and/or where anti-loitering is required.)

G. Install door alarm contacts on Electrical Room/Closet doors.

H. Install alarm notification devices (duress/robbery buttons) at locations where money is 
handled or there is a high probability of a hostile work environment.

**Existing Building - Type 1 Renovation (limited points of ingress/egress)**

A. Consolidate campus security by replacing the existing burglar alarm panels with ACAMS 
controllers and ancillary equipment. The ACAMS panels will provide alarm and control point 
integration with the new access control and existing alarm monitoring devices in the building. 
ACAMS controllers will be connected to and configured on a secure VLAN across the District 
Ethernet LAN.

B. Terminate existing alarm system field devices to the new ACAMS equipment and program 
accordingly.

C. Replace all of the existing alarm system keypads with ACAMS compatible keypads at the 
Main Entrances and Interior Areas.

D. Configure Main Building Entrances with a card reader/keypad, door alarm contacts, electronic 
locking hardware and request-to-exit (REX) device. (Card reader/keypads will be utilized for 
access control and alarm zone arming/disarming.)

E. Configure Telecommunication/Data Room doors with card reader, door alarm contacts, 
electronic locking hardware and REX device.
F. Configure internal area entry doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary doors with door alarm contacts, which contain any of the following physical items:
   1. Cash.
   2. Equipment of high dollar value (Computers, projector, etc.).
   3. Potentially dangerous equipment.
   4. Hazardous equipment.
   5. Items that present an attractive nuisance.
   6. Laboratory equipment and chemicals.
   (Note: Internal areas that are also equipped with non-door related security devices or with doors equipped with alarm contacts only may require a card reader/keypad for internal alarm arming/disarming functionality.)

G. Configure internal area entry doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary doors with door alarm contacts, which contain any of the following data service and document items:
   1. Campus computer network equipment and infrastructure.
   2. Human Resources records.
   3. Accounts receivable records.
   4. Sensitive information that could be potentially damaging to the District if made public.
   (Note: Internal areas that are also equipped with non-door related security devices or with doors equipped with alarm contacts only will require a card reader/keypad for internal alarm arming and disarming functionality.)

H. Configure interior rooms with security alarm devices (motion detectors, glass break detectors, etc., which contain any of the following items:
   1. Cash.
   2. Equipment of high dollar value (Computers, projectors, etc.).
   3. Potentially dangerous equipment.
   4. Hazardous equipment.
   5. Items that present an attractive nuisance.
   6. Laboratory equipment and chemicals.
   7. Campus computer network equipment and infrastructure.
   8. Sensitive information that could be potentially damaging to the District if made public.
   (Note: These types of devices are only necessary in locations that have multiple methods of unprotected access and/or where anti-loitering is required.)

I. Install door alarm contacts on Electrical Room/Closet doors.

J. Install alarm notification devices (duress/robbery buttons) at locations where money is handled or there is a high probability of a hostile work environment.
Existing Building Type 2 Renovation (multiple points of ingress/egress)

A. Consolidate campus security by replacing the existing burglar alarm panels with ACAMS controllers and ancillary equipment. The ACAMS panels will provide alarm and control point integration with the new access control and existing alarm monitoring devices in the building. ACAMS controllers will be connected to and configured on a secure VLAN across the District Ethernet LAN.

B. Terminate existing alarm system field devices to the new ACAMS equipment and program accordingly.

C. Replace existing alarm system keypads with ACAMS compatible keypads at the Main Entrances and Interior Areas.

D. Configure Telecommunication/Data Room doors with card reader, door alarm contacts, electronic locking hardware and REX device.

E. Configure internal area entry doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary doors with door alarm contacts, which contain any of the following physical items:
   1. Cash.
   2. Equipment of high dollar value (Computers, projector, etc.).
   3. Potentially dangerous equipment.
   4. Hazardous equipment.
   5. Items that present an attractive nuisance.
   6. Laboratory equipment and chemicals.

(Note: Internal areas that are also equipped with non-door related security devices or with doors equipped with alarm contacts only will require a card reader/keypad for internal alarm arming and disarming functionality.)

F. Configure internal area entry doors with a card reader, door alarm contacts, electronic locking hardware, and REX device and secondary doors with door alarm contacts, which contain any of the following data service and document items:
   1. Campus computer network equipment and infrastructure.
   2. Human Recourses records.
   3. Accounts receivable records.
   4. Sensitive information that could be potentially damaging to the District if made public.

(Note: Internal areas that are also equipped with security devices will require a card reader/keypad for internal alarm arming and disarming functionality.)
G. Configure interior rooms with security alarm devices (motion detectors, glass break detectors, etc., which contain any of the following items:

1. Cash.
2. Equipment of high dollar value (Computers, projectors, etc.).
3. Potentially dangerous equipment.
4. Hazardous equipment.
5. Items that present an attractive nuisance.
6. Laboratory equipment and chemicals.
7. Campus computer network equipment and infrastructure.
8. Sensitive information that could be potentially damaging to the District if made public.

(Note: These types of devices are only necessary in locations that have multiple methods of unprotected access and/or anti-loitering is required.)

H. Install door alarm contacts on Electrical Room/ Closet doors.

I. Install alarm notification devices (duress/robbery buttons) at locations where money is handled or there is a high probability of a hostile work environment.

Parking Lots

A. Where feasible, provide integration between existing emergency call stations and a ACAMS control panel located in the nearest available building.

B. When new emergency call stations are installed, provide integration between the stations and a ACAMS control panel located in the nearest available building.

7.4 Digital Video Surveillance System (DVSS)

As with the ACAMS, DVSS have evolved in recent years and, when properly integrated, supplement the ACAMS to provide a comprehensive, event based approach to campus security. Recent enhancements in technology have revolutionized the DVSS industry with the advent of digital video recorders, network compatibility, ultra low light sensitive cameras and direct integration with other security equipment. When properly installed and configured, DVSS’s extend the campus coverage and response while reducing staff workload and increasing staff effectiveness by providing real-time event based video in conjunction with ACAMS alarm generated events.

The backbone of the DVSS is the Digital Video Recorder (DVR). In addition to providing real-time event based video, DVR’s also provide ease and flexibility in reviewing video during post-event investigations, which greatly reduces the time spent on investigations while simultaneously increasing their effectiveness. Overall the DVR will deliver critical feature sets for recording, playback, archival, and video file transfer as well as long-term software and hardware migration paths when the technology advances. The DVR technology also allows new and exiting analog and IP based video
cameras to be multiplexed and digitally recorded (including intelligent event recording) to single or multiple hard drive configurations that can be located remotely, but accessed centrally.

When reviewing these recommendations, it should be noted that there are some possible liability issues regarding the specific placement, intent and functionality of video cameras. Of primary concern to the District is the placement and use of exterior cameras. When cameras are positioned to monitor exterior areas, particular parking lots and public areas, they can create an unjustified perception of security. Individuals may perceive that these cameras are actively being monitored and therefore may expect a response should a situation occur. Therefore, implementation of video coverage throughout the campuses requires appropriate staffing levels to be addressed prior to system wide deployment.

Based on these considerations, CATALYST recommends that the District install a DVSS, install new video cameras in conjunction with the implementation planning and installation of the ACAMS. In addition to the ACAMS criteria recommendations previously included, the following outline details specific criteria that should be considered with reference to DVSS regardless of the architectural building type or whether it is of new or existing construction.

New and Existing Buildings
A. Install new Digital Video Recorders (DVR's) in each building where connectivity to new video cameras is required. The DVR should be installed in a Telephone/Data Room and connected to and configured on a secure VLAN across the District Ethernet LAN.
B. Terminate new cameras to the DVR's located within the building.
C. Configure DVR's to record cameras at a minimum of 3.75 frames per second at a minimum of 2-CIF resolution with a minimum storage duration of 30 calendar days.
D. Provide internal areas where cash and/or records transactions occur with high resolution video cameras to view and record interactions.
E. Provide internal areas that house any of the following physical items with high resolution color video cameras:
   a. Equipment of high dollar value.
   b. Potentially dangerous equipment.
   c. High value laboratory equipment and specimens.
   d. High value machinery.
   e. Attractive nuisance items.
F. Provide Equip Maintenance Yards which present a high target of opportunity, with low light level high resolution video cameras to view and record interactions.
G. Optionally, provide major building entrances and emergency exits with high resolution color video cameras.

H. Optionally, provide Child Care exterior play areas and drop-off/pick-up areas with high resolution color video cameras.

Parking Lots
A. Install DVR’s in a secure room within the building nearest the parking lot. The DVR will be connected to and configured on a secure VLAN across the District Ethernet LAN.
B. Install high-resolution color video cameras to view new and existing emergency call stations located throughout the Parking Lots.
C. Install high-resolution color video cameras to view Police Vehicle Parking Areas.
D. Provide integration between the ACAMS and DVSS to initiate immediate camera call-up and real time recording upon activation of an emergency call station call button.

Pedestrian Mall, Quads and Athletic Areas
A. Install DVR’s in a secure room within a building nearest the parking lot. The DVR will be connected to and configured on a secure VLAN across the District Ethernet LAN.
B. Install high-resolution color video cameras to view new and existing emergency call stations.
C. Install high-resolution color video cameras to view the main use feature of the athletic areas (i.e. the swimming pool). (Note: Security requirements for Pedestrian Malls, Quads and Athletic areas are generally more difficult to define, as the application of security systems varies considerably on a location by location basis. As such, the following criteria recommendations are generalized. Specific locations and areas will need to be evaluated and defined on a case by case basis by the District.)

7.5 Emergency Communication System Recommendations (ECS)
In addition to the installation of ACAMS and DVSS solutions at both campuses to provide heightened levels of security for faculty, staff, students and property, the need for effective emergency communications with District Police, Operations and Maintenance, and Administration Department personnel from classrooms and other internal building areas is a critical component of the SMP.

Emergency Call Stations
The emergency call stations currently installed at various locations throughout both campus Parking Lots have established the foundation for the ECS, which the District can easily build upon. Although, the emergency call stations currently installed have never functioned properly at either campus, emergency call stations are a vital tool in providing long-term comprehensive service and protection of faculty, staff, and students.
There are three primary deficiencies of the existing emergency call stations. The first is that the units have not operated reliably since they were installed. All of the emergency call stations should be repaired or the intercom portion of the units replaced to restore the units to proper working order. Additionally, communication cabling to the units should be tested for continuity and signal interference. All communication cabling that does not pass these functional tests should be repaired or replaced.

The second is that an effective response after-hours cannot be guaranteed, as there is not always someone on campus to answer an emergency call and provide a response. This deficiency can remedied by providing a 7/24 District Police presence and by programming the emergency telephones to ring the PBO. Alternately, these phones could be programmed to ring directly to the Santa Clara County Communications for dispatch and response.

The third deficiency is that, in virtually all cases, it is impossible to evaluate the level of the emergency from telephone communication alone. This deficiency can be overcome through integration of the emergency call stations with the ACAMS and the DVSS at each of the emergency call station locations. Integration of the emergency call stations with the ACAMS and DVSS creates a cohesive security program. When a call is initiated at an emergency call station, an event can be simultaneously generated in the ACAMS and a live video feed from the associated video camera is channeled through a DVSS workstation in the PBO. The PBO operator can then utilize the live video in conjunction with the emergency call station audio to effectively evaluate the situation and direct the appropriate response, or to assist Santa Clara County Communications in the event the phones are routed their dispatch. Additional, the live video feed can be streamed wirelessly to a PDA or mobile computer carried by the on-duty officer for after-hours monitoring.

_Emergency Call Stations_

Based on the considerations above, CATALYST recommends that the District incorporate emergency call stations into the ACAMS and DVSS, thus providing a fully integrated security program. The following outline details specific criteria that should be considered with reference to the ECS.

**Pedestrian Mall, Quads and Athletic Areas**

A. Install freestanding pole emergency call stations along campus pedestrian malls, in quads and athletic areas at approximately 300’ intervals. Size, location and specific use areas will determine the actual quantity and placement of emergency call stations.

B. Terminate new emergency call stations to the District telephone system and program to automatically call the PBO or Santa Clara County Communications when activated.
C. Terminate the activation output relay from all new emergency call stations to an ACAMS controller located in the nearest building.

**Parking Lots (New)**
A. In new surface parking lots, install new freestanding pole mounted emergency call stations to provide similar spacing of units with existing Parking Lots.
B. Terminate new emergency call stations to the District telephone system and program to automatically call the PBO or Santa Clara County Communications when activated.
C. Terminate the activation output relay from all new emergency call stations to an ACAMS controller located in the nearest building.

**Parking Lots (Existing)**
A. Repair all non-operational emergency call stations.
B. Terminate new emergency call stations to the District telephone system and program to automatically call the PBO or Santa Clara County Communications when activated.
C. Terminate the activation output relay from all new emergency call stations to an ACAMS controller located in the nearest building.

**All Call Paging System**
As previously mentioned in Section 5.5, currently an all call paging function does not exist at either of the District campuses. An all call paging system can be extremely valuable in addressing campus wide emergencies (active shooter, bomb threats, natural disaster, etc.) which require immediate evacuation or building lock down. Often the timing of emergency broadcasts is the most critical element of successfully managing an on campus crisis. As such, CATALYST recommends that the following campus wide all call paging system be installed throughout both campuses.

**New and Existing Buildings**
A. In new and existing buildings, install new paging speakers as required to provide the appropriate audible annunciation throughout each building or group of buildings.

**Parking**
A. Install new paging speakers located either on the nearest adjacent building to the area or remotely on poles to provide sufficient audible coverage of the area.

**Classroom Telephone System**
As previously mentioned in Section 5.6, currently no telephone communications exist in classrooms at either of the District campuses. As with the call paging system, a classroom telephone system can
provide a valuable tool for faculty and students to report a classroom emergency to the appropriate personnel in a timely manner. Additionally, it allows District Police a second method of broadcasting critical information to the faculty and students in the event of a campus wide emergency. In conjunction with the specific ACAMS and DVSS recommendations, the following telephone system criteria are recommended for both new and existing campus buildings.

**New and Existing Buildings**
A. In new and existing buildings, install new telephones connected to the District telephone switch in each classroom and provide dial by extension communication directly to the PBO or other critical campus Departments.

**7.6 Mechanical Key System**
In conjunction with the security practices detailed in Section 5.7, the following outline details specific criteria that should be considered with reference to Mechanical Key System.

**Campus Wide**
A. Provide a well-constructed cabinet of sufficient size to hold the original key for all locks, extra keys, key blanks, and any additional keys that are in use in the company or for facility/department related functions. The cabinet should be installed in such a manner so as to be difficult, if not impossible, to be removed from the property.
B. Designate a key control administrator (typically the Facilities and/or Department Manager) who oversees the key control program. The key control administrator should maintain a record of the permanent issuance of keys and the recipients of key should be required to sign for them.
C. All employees should be informed that duplication of keys is not permitted and the loss of keys should be reported immediately.
D. The College District must recover keys from personnel who are no longer employed by the College District. Implement strong policies which require the return of all College assets.
E. All master keys should be numbered for control and accountability purposes.
F. All keys should be stamped or engraved with a number for identification and accountability purposes and stamped “Do Not Duplicate”.
G. Periodic inventories should be conducted to verify that all keys are accounted for and are still in possession of the employee to whom they have been issued.
H. The keying system should be built to so that individual keys open the fewest number of locks as practical.
I. The issuance of Master and Grand Master keys should be strictly limited.
J. A higher security key, such as a “Primus” should be utilized exclusively.
7.7 Lighting and Landscaping Recommendations

Lighting

During the lighting surveys a large number of lights were found to be non-functional. Nothing, with the exception of a total absence of lighting, affects security lighting more adversely than functional fixtures with non-functioning elements. A table has been provided in Section 5.8 Lighting and Landscaping which identifies these fixtures for both campuses. Some of the fixtures were identifiable by a numbering schema painted on the pole assemblies, while others had no identifiable markings whatsoever. Many fixtures evaluated throughout the campus demonstrate a very low light output based on the bulbs having exceed their effective life cycle. As such, the following outline details specific criteria that should be considered with reference to the Lighting findings.

Campus Wide
A. Immediately replace all non-operable fixture elements that were identified in Section 5.8 of this report.
B. Clean the lens on each fixture to increase light transition into surrounding areas.
C. Update the campus wide lighting numbering schema and re-mark all campus light fixtures with a new uniquely assigned number.
D. Implement a reporting program that provides an easy method for faculty, staff and police department personnel to notify the Maintenance and Operations of faulty fixture.
E. Implement a policy to replace all light bulbs on a pre-defined schedule based on the maximum effective life cycle of each particular bulb—not based on the fact that it is burned out.
F. Replace existing wall pack and ceiling mounted fixtures on building structures which output sub standard lighting levels.
G. Select bulb types which output a higher luminescence.
H. Implement a policy to replace any and all faulty fixture elements within a specific (and reasonable) period of time after they are reported defective.
I. Subsequent to implementation of the above recommendations, CATALYST recommends that the District reevaluate lighting levels in the specific areas listed in Section 5.8 – Lighting and Landscaping, and install new fixtures, as required, to increases the levels in those areas to meet the IESNA minimum levels.

Landscaping

In the performance of the campus lighting surveys, it was noted that many of the locations with poor or marginal lighting levels also had growth from tress, shrubs, and/or vines obscuring lights. These
locations are included specifically in Section 5.8. Following the principles detailed in Section 3.3 – Lighting and Landscaping; the following outline details specific criteria that should be considered with reference to the Landscaping findings.

**Campus Wide**

A. Immediately perform landscaping maintenance to trim the foliage in the locations referenced in Section 5.8.

B. Evaluate the District landscape policy with reference to Security Landscaping principles (Section 3.3) and incorporate these concepts into the regular landscape maintenance policy.

C. Conduct annual (in-house) campus wide landscaping surveys to identify areas that may have been missed or neglected during throughout the previous year.
8. CONCLUSION

This Security Master Plan has utilized statistical data obtained from the FBI, the Clery Act and CAP Index, Inc. in conjunction with information gathered during informal interviews with select faculty and staff as well as extensive site, building, lighting and landscaping surveys to prepare a detailed threat assessment and vulnerability/risk analysis and recommendations for the West Valley/ Mission Community College District campuses. The vulnerability and risk analysis provided a benchmark for evaluating the effectiveness of current police staffing levels, roles and responsibilities, and existing electronic physical security system. This evaluation was utilized to develop a broad range of recommendations that are intended to mitigate potential threats and reduce risk to the District, its faculty, staff, students and property. It is hoped that the prioritized list of detailed recommendations included in this Security Master Plan will serve to enhance the future vision for effective and comprehensive security and risk mitigation programs at the District.