TO: Dean Steve “The Bear” Wiltkerbad

FROM: Roger Baumbach II

RE: To inform you of the Entity Relationship Diagram

DATE: October 21, 2013

Attached to this document is an Entity Relationship Diagram (ERD). The ERD is a data model that depicts data in terms of the entities and relationships describing the data. Entities are a class of persons, places, objects, events, or concepts about which we need to capture and store data and a relationship is a natural business association that exists between one or more entities. Note that each piece of the ERD will contain associated data values. These values are descriptive properties or characteristics of each entity. Out of each value there is a key value or attribute/group of attributes, that assumes a unique value for each entity instance. This value is sometimes known as a primary key and it is a specific value of that entity that helps to identify that entity. The purpose of this attached model is to show the entities that will be relevant in the design of the Proposed Residence Hall Complaint System. Knowing these entities is quintessential to the development of the system because they will be the entities that benefit from the development of this system.

In this model there are a total of 9 entities: The Residence Hall Staff, Grievances, Office of the Dean of Students, Provost’s Office, Federal Reporting Agency, Local Law Enforcement, Students/Visitors, Office of Public Safety, and the University Judicial Board. These entities have been selected the basis of interaction within the system. The first major entity is the students and visitors in which the system is being developed to track along with the grievances that have been filed against. The second sets of entities are as follows: The Office of the Dean of Students, Public Safety, The University Judicial Board, and the Residence Hall Staff. These entities have been selected because of their quintessential need to be in the system. The Residence Staff are the first to respond to the system. They report the grievances as they witness them. The Dean of Students will then proceed to process the grievances into two sets. One set is sent to the Office of Public Safety and the other will arrive at the Judicial Board for the University. These two entities are included in the ERD because they are the determining factor in how students will be punished or be reprimanded. The Office of Public Safety is in charge of reporting Students to the proper local authorities if circumstances require. The Judicial Board will handle the students whose offenses are not severe enough to elicit the Authorities but still require action, and the board will proceed to act upon the issues at hand. After grievances have been handled by the previous entities, there are only three entities left to act. On the occasion the office of public safety is needed in an issue, they will report this to the local authorities who are the seventh entity. The Local Authorities will apprehend or deal with the student or visitor at fault. In the end of the grievance process, the last two entities are involved, The Provost’s Office and the Federal Reporting Agencies. These two agencies are a necessity, because once the grievance at hand has been processed, the Provost’s office will take care of compiling these into a monthly report that will be given to the Federal Reporting Agency for legal purposes.

Of the nine entities in this model, each has a set of attributes that are required or will assist in the process model. Below is a chart of the nine entities and their respective attributes. For each of the nine entities and their attributes, there is a primary key. This key, as stated in the first paragraph, is required in order for the system to function. The Residence Hall Staff are required to give their name on the account that the system needs to track the individual that reported the grievance. Each grievance is required to have the Name of the Grievance, allow the system to track multiple grievances at a time. The Office of the Dean needs to track who then dealt with the each grievance. The Judicial Board is required then to have a list of all the grievances they are working on, allowing the system to also keep a record on the progress of a grievance. The Office of Public safety is also required that it keeps a list of all of the grievances it is dealing with. The Students that the grievances are filed against have their names recorded within the system so that the system can match the student with each grievance. Local Law enforcement is then required, by the system, to have the name of the Officer that dealt with the student at hand. Lastly, the Office of the Provost is required to have a list of Grievances so that it may report it to the federal reporting agency which has a list of the yearly grievances for federal purposes.

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| Entity | Require Key | | Attributes | | | | | | | | | | | | | | | | |
| Residence Hall Staff | Staff Name | | Address | | | City | | State | | Zip Code | | Email | | Phone Number | | Offenses Reported | | |
| Grievances | Grievance Name | | Student Committing | | | Date | | Time | | Place | | RH Staff | | Type of Grievance | | Further Detail | | |
| Office of the Dean of Students | Grievance handler | |
| Provost’s Office | List of Grievances | |
| Federal Reporting Agency | Yearly Grievances | |
| Local Law Enforcement | Officer Name | | Type of Offense Handled | | Date | | Bade Number | | | |
| Students or Visitors | Name | Student ID | | City | State | | Zip Code | | Phone Number | | | | Offenses Committed | | Address | | Grade Level | Hearing Date | |
| Office of Public Safety | Open Grievances | |
| The University Judicial Board | Open Grievances | |

For each entity there is then a relationship that has the two working in conjunction. Residence Hall Staff and grievances are related because the Residence hall staff writes up the grievances. Then the Office of the Dean and the Grievances are related because the office of the Dean will check each grievance and then forward it through the system to the proper office to handle the situation. The University’s Judicial board as well as the Office of Public Safety are related to grievances, because after they are forwarded the grievances, they will act upon them and then and will update the grievances. The University Judicial Board is related to the students because they will schedule and meet together to discuss the grievance about the Student. The Office of public safety will contact local law enforcement who will contact the student or meet the student on the grounds of the grievances sent by Public Safety. Students will interact with grievances to query the progress of the grievance and grievances are written about students. Lastly, the provost’s office will receive the grievances and then send them to the federal reporting agency.

In the terms of each relationship between entities, there is a term called Cardinality that refers to the relationship. The Cardinality refers to the minimum and maximum number of occurrences of one entity that may be related to a single occurrence of the other entity. The relationships are as follows: a one to one relationship, one to many, and many to many relationships. These relationships tell how they interact in a numerical relationship. Residence hall staff interacts with grievances on a many to one relationship. Each staff member may write many grievances but each grievance has only one staff member. The office of the dean and the grievances will interact on a many to one because they will check and forward many grievances, but they will only have one office. The judicial board and public safety will have many grievances but each grievance only interacts with one office. The judicial board will interact with many students but each student only interacts with one judicial board. Public safety will only interact with one local law enforcement and the same goes for the local law enforcement working with only one office of public safety. Students will only deal with one local law enforcement but local law enforcement will work with many students. Grievances will work with one student but a student may have many grievances. And lastly, the provost’s office works with many grievances but each grievance will only work with one office and the provost’s office will only work with one federal agency and the federal agency will only deal with one provost’s office.

