Risk Management Plan

By

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For

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In its broadest sense, risk management is concerned with the systematic application of management policies, procedures, and practices to the tasks of identifying, analyzing, assessing, treating, and monitoring risks. In the context of this assignment in which a business unit is seeking to create a new operating model to consolidate its business units that have earlier been operating as different entities, the application of the risk management process becomes dire. In essence, risk management, which is an iterative process, can contribute progressively to improvements by providing the business unit’s leaders with a greater insight into potential risks and their impacts. It would help in identifying the risks, their causes, and potential controls, establishing likelihood and consequence descriptors, establishing risk rating descriptors, making sound decisions, and in risk monitoring, reviews, and reporting (Lientz & Rea, 2007). Besides, proper application of the risk management procedure would allow risks to be prioritized correctly across all of the business unit’s departments’ operations. Subsequently, effective controls can be put in to ensure that the business unit and its constituent departments manage their operations effectively now and into the unforeseeable future.

## Process

The risk management process is critical to overall project success. Performing risk identification as early as possible in requirements definition will allow the project team to incorporate the appropriate responses to these risks in the form of mitigation, avoidance, or acceptance. This process does not conclude with the initial analysis of risks that could/would effect project completion, it is iterative and must be completed on a constant, scheduled basis to remove the possibility of an identified risk becoming a threat or another unidentified risk crippling project execution. The Project Manager, Victor Grate, is the focal point for all risk identification, analysis, and approved solutions. The project team will support and be assigned specific roles for the life of the project. The PM will work with the project team to develop a schedule and propose unique standards against which all identified risks will be measured against. Senior management will have the final approval of these standards.

Identified risks must be measured against standards set forth by senior management to ascertain if the risk is acceptable. An important factor about analyzing risks rests with the risk attitudes of management and stakeholders (Project Standard for Project Risk Management, 2009). Escalating identified risks to different levels of personnel within the organization will depend on this attitude. Furthermore, determining at what level the risks will be analyzed will also depend on the risk attitudes of the individuals involved with the project.

The two different types of risk analysis are qualitative and quantitative. As a brief description, qualitative analysis is subjective and can be identified with different extremes based on factors such as experience, age, and background. Quantitative analysis is objective and based on a numerical analysis that defines what the impact will be on the project based on suggested inputs.

## Roles and Responsibilities

|  |  |
| --- | --- |
| Role | Responsibilities |
| Senior Management | Verifies/Validates that risks across all projects are mitigated/avoided appropriately.  |
| Project Stakeholders | Identify risks within their projects. Help provide background information, if any, and aids in building an appropriate response to risk management. |
| Project Managers | Drivers of risk assessment and response. Selects and appoints individuals on unique projects to identify risks. Decides whether or not qualitative or quantitative analysis should be conducted.  |
| Risk Manager | The Risk Manager compiles, analyses, and coordinates identified current and future risks at the appropriate level; maintains a risk status report for both the Project Manager and senior leadership. |
| Subject Matter Experts | Identifying, analyzing, and proposing mitigation, acceptance or avoidance tactics of identified risks to the Risk Manager for approval.  |
| Risk Owners | Identify risks at every stage of the project as risk management is a reiterative process. Identified risks will flow up from the risk owners to the SME’s and then the Risk Manager. Monitoring and controlling risks in accordance with approved plans is an inherent role of risk owners. |

## Risk Identification

Risk identification is the process of listing risks that can create a problem for a project which will affect the outcome and time on completing objectives pertaining to that project. This would include written documentation of these risks and communication between those on the project. Project team members are to identify risks that may influence objectives related to the project. Team members should write clear, specific, and explain the ideas behind their concerns about such risk.

The purpose of the process of Risk Identification is to prevent problems before they occur, so that the project will be completed on-time and have a better outcome on its objectives. Risks are not always external, they can be internal as well.

To begin risk identification, the team should review the scope of the project, its cost estimates, its schedule, its technical requirements, its key issues and performance requirements, stakeholder concerns, internal and external situations, integration issues, supply-chain delivery times, safety, security, threats, costs deviations, technical support, and so much more.

During a project, risks identification will grow and change. Risk statements will change with the additional information about those risks as a project is being completed. These risks statements will be changed and shared with the team as the project objective are being completed. The risk register and assumption log will need to be updated as new information become available and risks change.

There are several different classifications of risk that are repeatable in risk identification: Customers, competitors, financial, operational, sector, suppliers, and technology.

**Customer:** The customers are very critical risk factor because there are trends that they seem to follow. Their spending changes with income, jobs, age of their children and their needs changes as well. These things and more generate pressure for the economy, business, technology, quality, and more.

**Competitors:** The size of the competition, financial security of other companies, whether they are rival companies, idea theft, rules of the game are examples of risks that competitors can play in decision-making in risk identification. How many different competitors are there already making this kind of product is also a risk factor.

**Financial:** Businesses cannot operate without capital. They must often borrow money for growth. Banking institutions of consider a company’s long-term goals and capacity to pay those investments back. This factor and other factors are affected by interest rates, knowledge of different kinds of loans and their advantages vs disadvantages of these kinds of loans. They also must understand their availability of credit and current exchange rates. The cost of everything involved must be measured with the gains when everything is completed.

**Operational:** Operational risks are businesses’ ability to complete a strategy from beginning to end. Staffing required for this kind of venture must be a consideration. A business must consider marketing and the kind of product that is being planned must meet their knowledge of business.

Sector: This is an external risk that is completely different and separate from the company’s operational capabilities. This could be materials are being developed that could change what a product can be made of because of health risks to children as well as adults. Materials could be change how the technology of current products and future products are made. Some sectors of business are subject to regulatory changes and business fragmentation, laws, regulation, and pressure from competitors.

**Suppliers:** This is a risk consideration due to the costs changes in raw materials, availability of the products, rate of delivery, variety of supplies, method of delivery and method of payments. This area of risk also has negotiations, expectation of quality, on-time delivery, and storage of the materials. These considerations could vary in their costs, which could add more risk to the achievement of the company profits.

**Technology:** This is a measurement of the company’s ability to perform the required tasks related to the completion of the project. This may be a risk not worth undertaking due to the investment required to complete the project. This is also a measurement of the customer base as well, is the target customer ready for such technology. The company must consider the staffing talent and level of training of staffing required to perform in a manner necessary to complete the tasks required. Significant investments could be required to complete the project, these are risks that must be a consideration as well.

To identify other risk factors, speak to the stakeholders and study the history of similar projects in the Lessons Learned archives. Understand that communication with team members, experience from other projects and communication with stakeholders can identify risks that may become a factor during a project and its success.

###  Methods for Risk Identification

|  |  |  |
| --- | --- | --- |
| Internal | **Strengths*** Workflow Team Success
* One of the former 3 teams has already been upgraded their infrastructure and technology
* Organization not in denial about needed changes
* Collocated teams
 | **Weakness*** Project already Overbudget.
* Project already over schedule.
* Team Conflicts in 2/3 of teams.
* Undeveloped PMO practices.
 |
| External | **Opportunities*** Workflow team’s success with Agile development environment
* One department already migrated to new system.
 | **Threats*** Run out of money for project
* Issues with partial integration of new technology and old technology
* Still paying for support of old technology platform
* No Team work
* Possible lacking in management support
* Competition that has already made a migration towards the technology; business units focus on support of bring in revenue.
 |

###  Risk Register

The primary output from the Identify Risk is process is the initial entry into the risk register. It records the results of the risk analysis and risk response planning (PMI, 2013, pg. 327). A risk is an uncertain event or condition that if it occurs can have a positive or negative effect of the project objectives (PMI, 2009, pg. 9). The provision for risk management specified within the approved by management at a level adequate for carrying out the required Project Risk Management processes in accordance with agreed upon objectives (PMI, 2009, pg. 22).

Risk Register

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID # | Risk Category | Risk Description | Risk Impact | Risk Owner | Risk Response | Response Tracking |
| 1 | Cost | The budget is capped for this project; and schedule cannot exceed 5 years. | Nuclear | Project Manager | Schedule regular meetings with high ranking stakeholders and sponsors. Create dashboard or daily status reports containing productivity statistics; develop weekly forecasts; and trend analysis. | Monitor CPI and SPI; cost and schedule variance; set thresholds at levels that steps can be made to avoid risks. Understand senior managements risk attitude. Reverify communication needs and formats. |
| 2 | Operational | Dysfunctional Conflicts in two of three legacy teams; these conflicts lead to rework, which directly effects, overall project costs and schedule. Previously in the risk register the dysfunction had their own risk category, but they are essentially the same sort of issues that can be handles by one strategy: Training. | High | Senior Management | Update Human Resource Plan and establish reserves for training. Provide training, incentive to motivate work force toward operational goals of one team, one budget. Have sponsors schedule offsite meetings to build comradery between teams. Senior management is positioned to motivate the workforce. | Monitor work performance reports. CV and SV. Monitor estimated duration and cost with actual cost and duration measures. Determine cause of variance |
| 3 | Vendor | Ensure we are receiving competitive pricing for hardware and software | Moderate | Project Manager | Create Request for Information to find out estimates from different vendors | Require vendors to be certified resellers; chose vendors that are large enough or have the ability to price match. |
| 4 | Executive Sponsorship | Lack of motivation, or visual proximity to project. Exiting sponsor becomes the functional manager of project team members | Moderate | Senior Management | Allow both remaining sponsors share duties in managing day to day operations. | Monitor and Control project activities and solicit and be available for feedback from project team regularly. Exiting executive sponsor becomes Risk Manager |
| 5 | Enterprise Environmental Factors | Similar product we are producing comes to market before us | Low | Project Managerand Project Team Members | Monitor industry publications, news and competitor’s corporate website | Decide what functions will make the product more competitive and focus on those. Ensure that the product development is not leaked to competitors internally.Consult with lower ranking stakeholders. |

## Risk Analysis

Perform Qualitative Risk Analysis is the process of prioritizing risk for further analysis or action by assessing their probability of occurrence and impact. The key benefit of this process is that it enables project managers to reduce the level of uncertainty and focus on high priority risks (PMI, 2013 pg. 328). Performing Qualitative Risk Analysis assesses the priority of identified risks using their relative probability or likelihood of occurrence, and the corresponding impact on project objectives.

In the case study, there are clearly stated objectives for this project. These objectives are:

|  |  |
| --- | --- |
|  | Create a new operating model to be developed incorporating to incorporate consistency of process and technology infrastructure.  |
|  | Build requirements for one of the product lines that is common across all departments.  |
|  | Selection of an I.T lead. |
|  | Develop steering committee. |
|  | PMO consolidated. |

Risks identified on this consolidation project will affect those two stated objectives. Each risk is rated on its probability of occurrence and impact on an objective if it does occur. Risk can be evaluated with the use of an analytical tool called the Probability and Impact Matrix. Once the organization determines which combinations of probability and impact result in a classification of nuclear, high, moderate and low risk (PMI, 2013, pg.331).

### Qualitative Risk Analysis – Probability and Impact Matrix



A probability and impact matrix is a grid for mapping the probabilities of each risk occurrence and its impact on project objectives if that risk occurs (PMI, 2013, pg. 318). Below the project team is provided a set of definitions that can used to facilitate understanding of category and severity of risks in the Probability and Impact Matrix.

|  |  |
| --- | --- |
| Nuclear | This classification will require upper management and project manager to meet daily to discuss work performance metrics, and causation of failure. Project team member and supervisor held accountable. |
| High | This classification will require the project manager to meet with supervisors, functional manager and project team to discuss performance metrics being outside of estimates weekly. Retraining for certain team member mandatory; optional for others.  |
| Moderate | This classification will require the project manager to look at the RBS to determine the source of failure; then inquire with appropriate project team members to determine if new risk identified or if identified risk changed. |
| Low | When the risk value in the Probability and Impact Matrix is 10% or lower.  |

### Quantitative Risk Analysis – Excel QM

### **In the PMBOK Guide 5th edition, performing quantitative risk analysis is the process of numerically analyzing the effect of identified risks on overall objectives. Group 2 explored the possibility of crashing the project schedule. Crashing is a project management technique used to shorten the schedule duration for the least incremental cost by adding resources. Group 2 has created a project schedule with input table, resulting table, critical path and crashing times and costs.**

###

|  |  |  |  |
| --- | --- | --- | --- |
| **Data** |  | Immediate Predecessors(1 per column) |  |
| Activity | Time | Predecessor 1 | Predecessor 2 | Predecessor 3 |
| A | 4 |  |  |  |
| B | 6 |  |  |  |
| C | 7 | A | B |  |
| D | 8 | B |  |  |
| E | 5 | B |  |  |
| F | 5 | C |  |  |
| G | 7 | D |  |  |
| H | 8 | D | E |  |
| I | 4 | F | G | H |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity | Early Start | Early Finish | Late Start | Late Finish | Slack |
| A | 0 | 4 | 6 | 10 | 6 |
| B | 0 | 6 | 0 | 6 | **0** |
| C | 6 | 13 | 10 | 17 | 4 |
| D | 6 | 14 | 6 | 14 | **0** |
| E | 6 | 11 | 9 | 14 | 3 |
| F | 13 | 18 | 17 | 22 | 4 |
| G | 14 | 21 | 15 | 22 | 1 |
| H | 14 | 22 | 14 | 22 | **0** |
| I | 22 | 26 | 22 | 26 | **0** |
|  | **Project** | **26** |  |  |  |

## Plan Risk Response

Addressing the risks that comes with the business unit trying to consolidate its departments so that they operate as one rather than different units would involve defining ways to reduce or even eliminate any risks as they arise. It would be dire for the departments leaders charged with ensuring that the endeavors succeed to ensure that they eliminate the risks before they occur. Besides, it would be their noble responsibility to make sure that they decrease the probabilities and impacts of any risks while increasing the probabilities and impacts of opportunities (Barkley, 2004). In case there are threats that cannot be eliminated, it would be prudent to develop contingency plans, and further, a response plan if the contingency plans do not work.

To address the risks, various approaches would be selected from a choice of risk response strategies including avoidance, acceptance, mitigation, or transfer. To begin with is avoidance. In its broadest sense, risk avoidance would be about eliminating hazards, exposures, and activities that would negatively affect the business unit’s consolidation efforts. The risk response strategy would be concerned with entirely avoiding all possibly compromising events (Barkley, 2004). Secondly is acceptance, which would be most appropriate when the cost of managing certain types of risks are acceptable especially when the risk involved is not adequate enough to merit additional costs to avoid that risk. In other words, this risk response strategy would be used when the severity of a risk is low enough that the business unit’s leadership can do nothing about it unless it occurs.

Thirdly is mitigation, which would be all about systematic steps to reduce the extents of exposure of a risk and the likelihood of its occurrence (Hillson & Simon, 2012). Here, it would be wise for the business unit to develop a high-level mitigation strategy focused on introducing specific measures to minimize or eliminate unacceptable risks associated with the consolidation efforts. Finally, transferring risk details shifting risk from one party to another party that is willing to bear the costs and liabilities of the risk. The ideal way to do this would be to buy an insurance policy with a reputable insurance company. With an insurance policy, all adverse outcomes that follow the consolidation of the business unit’s departments would be indemnified.

**Risk Responses**

Risk Response Description

* **Avoid** – Eliminate the threat or condition or to protect the project objectives from its impact by eliminating the cause
* **Mitigate** – Identify ways to reduce the probability or the impact of the risk
* **Accept** – Nothing will be done
* **Transfer** – Shift the consequence of a risk to a third party together with ownership of the response by making another party responsible for the risk (buy insurance, outsourcing, etc.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID # | Risk Category | Risk Description | Risk Impact | Risk Response | Response Tracking |
| 1 | Cost | Project Not on Budget and Off of Schedule | Nuclear | Avoid  | Cost Performance and Schedule Performance metrics |
| 2 | Operational | Dysfunctional Teams: Previously identified multiple categories of operational risk such as: resistance to change, low morale etc. The update to the risk register will combine these categories due to the fact they are similar. Only senior management is optimally positioned to influence the workforce. | High | Mitigate | Monitor and Control work performance through work performance metrics. solicit feedback from project team members. |
| 3 | Vendor | Overpricing or unable to deliver equipment required. | Moderate | Avoid | Establish criteria that all vendors must meet before doing business with parent organization. |
| 4 | Executive Sponsorship | Exiting sponsor becomes functional manager of project team. | Moderate | Mitigate | Remaining sponsors share duties of managing day to day operations. |
| 5 | Enterprise Environmental Factors | Unknown circumstances; similar product coming to market first. | Low | Mitigate | Do research on competitors’ products; follow up with lower ranking project team members for insights. |

## Risk Metrics

In managing the risks associated with the business unit’s endeavors, risks metrics would come into play reason being that one cannot manage what cannot be measured (Kendrick, 2015). In essence, the effectiveness of the risk management process would depend on measurement. In the context of the consolidation efforts of the departments within the business unit, among the most usable risks metrics include predictive metrics, diagnostic metrics, and retrospective metrics.

To begin with are predictive risk metrics. These, in their broadest sense, would serve as a distant early warning for the potential risks. These would depend on forecast information, usually assessed in early stages of the work. These helps to make unrealistic assumptions, significant potential problems, and other risk sources visible (Hillson & Simon, 2012). This metric would be useful in justifying schedule and budget reserves, determining project scale, and determining situations that need contingency planning.

Secondly are diagnostic risk metrics. These would be used to provide real-time information to assist in the assessment of the current state of the ongoing project. In the business unit’s context, diagnostic risk metrics would serve to trigger risk responses and other adaptive actions, assess the impact of project changes, provide early warnings for potential future problems, and determine the need for updating contingency plans or developing new ones (Hillson & Simon, 2012). Finally are retrospective risk metrics. These would be used to determine how successful the endeavors were after they are complete. The metrics would be useful in tracking trends, identifying recurring sources of risks, setting standards for reserves for budget and schedule, and deciding when to improve and replace current processes (Hillson & Simon, 2012).

For best measurement of project risks associated with the business unit’s consolidation efforts, it would be prudent to first consider the behavior changes necessary to improve the management of the risks even before deciding what to measure. These would help to avoid potential problems such as schedule and budget problems (Kendrick, 2015). Besides, it would be suitable consider an appropriate number of risk-related metrics so that not too few or too many metrics are selected. Such measures would avoid potential problems by avoiding too high overheads and costs of information collections, and preventing important information being lost in the jumble.

# Risk Status Report

A Risk Status Report will be kept, updated, and distributed by the Risk Manager. The Project Manager will review and provide comments on the Risk Status Report on a weekly basis prior to meeting with stakeholders and/or project team members. This Risk Management Log will be reviewed by Senior Management as often as the Project Manager or Senior Management dictate, but not less than once every two weeks. Only the risks that impose the greatest threat to project completion should be presented to Senior Management.

**Project Risk Status Report**

**Group Two Team Project**

**Week Ending: 03 March**

**Project Risk Status Summary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Scope | Schedule | Cost | Risks  | Quality |

Open risks are labeled below that require immediate attention from executive stakeholders. These risks have either occurred or are very likely to happen in the immediate future. Not all risks to the project are contained below, just those that need review and approval from senior leadership.

**Open Risks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Risk Description | Strategy | Responsible Area | Comments |
| Project Management | Budget Overrun | Accept | Subject Matter Expert (SME) | A new budget plan to be proposed |
| Operational | Exiting Sponsor to become functional manager | Accept/Mitigate | Senior Management | Consider promoting sponsors to manage day to day operations |

# Risk Closure Process

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Project’s will eventually come to a closure, this is an inevitable part of the greater project life cycle. The PMBOK Guide 5th edition explains the Closing Process Group consists of “those processes performed to conclude all activities across all Project Management Process Groups to formally complete the project, phase or contractual obligation.” (PMI, 2013 pg. 57) Risk closure, on projects can occurs for two primary reasons. In the event, that a project phase associated with a risk related work activity has been completed; or when the project closes, yet previously identified risks remain open. (Craig, 2007)

In the case study given, Group 2 as the consultation firm created a risk register. In the original risk register Group 2 identified 62% of the risk’s in the project as operational. The Probability and Risk Impact Matrix explains these risks have a high probability of occurrence with a medium impact on project objectives. These risks may have a lingering effect on all projects that the organization faces unless actions are taken to permanently eliminate them.

The close out process as related to the business unit consolidation and infrastructure upgrade, for the consultation it will become necessary to reference the subsidiary plans such as the cost, schedule and quality management plans and the scope baseline, along with other inputs to ensure the final product, service or desirable outcome has been delivered. The risk registered revealed a lot of internal conflicts. Consolidation of all three teams can be complete yet underlying conflict can remain. If the groups continue to think autonomously it can prove costly for the organization because it can lead to a lot of rework. Below is graphic extracted from the PMBOK Guide 4th edition illustrating inputs to the overall closure process.



In the PMBOK Guide 5th edition (PMI, 2013 pg. 58) explains at project or phase closure the following may occur:

* Obtaining acceptance by customer or sponsor to formally close the project or phase
* Conducting post project or phase related review
* Record impacts of tailoring any processes
* Documenting lessons learned
* Apply appropriate updates to OPA’s
* Archive all relevant project documents
* Close out all procurement activity
* Perform team member assessments and release project resources.

Overhead Cost for the organization will continue to be high for months after the project is completed. Decommissioning the legacy system, and training the workforce on how to use the new system upgrades will take time and effort. Project information should be captured, and analyzed for lessons learned. Group 2 suggests that management launch initiatives to build comradery in the newly formed teams. Group suggests allocating funds towards training and developing the workforce in topics such as team work, and leadership. We also recommend that an awards system be developed to recognize model employees going above and beyond demonstrating good corporate citizenship. Below we find the wrap up for our infrastructure and consolidation project that will be used to ensure all deliverables and associated project processes have closed out properly.

**Wrap-up Closure Checklist**

|  |
| --- |
|  **Task** **Done: Y/N** |
|  **Team** |
| 1. Has schedule for reducing project staff been developed and
 |
|  accepted? |
| 1. Have staff performance reviews been conducted?
 |
| 1. Have staff been released or notified of new assignment?
 |
|  **Vendors** |
| 1. Have performance reviews for all vendors been conducted?
 |
| 1. Have project accounts been finalized and billing closed out?
 |
|  **Customers** |
| 1. Has the executive sponsor signed-off on finished product?
 |
| 1. Has the in-depth project review and evaluation interview been
 |
|  conducted with customer? |
|  **Equipment and Facilities** |
| 1. Have project resources been transferred to other projects?
 |
| 1. Have rental or lease equipment agreements been closed-out?
 |
| 1. Has the date for the closure review been set and stakeholders been
 |
|  notified? |

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Appendix A: Risk Management Plan Approval

The undersigned acknowledge that they have reviewed the **Group 2 Risk Management Plan** and agree with the information presented within this document. Changes to this **Risk Management Plan** will be coordinated with, and approved by, the undersigned, or their designated representatives.

|  |  |  |  |
| --- | --- | --- | --- |
| Signature: | Sheldon Murphy | Date: | 03/04/2017 |
| Print Name: | Sheldon Murphy |  |  |
| Title: | Project Team Member |  |  |
| Role: | Project Management |  |  |

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| --- | --- | --- | --- |
| Signature: | Victor Grate | Date: | 03/04/2017 |
| Print Name: | Victor Grate |  |  |
| Title: | Project Team Member |  |  |
| Role: | Project Manager |  |  |

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| --- | --- | --- | --- |
| Signature: | Christopher Goff | Date: | 03/04/2017 |
| Print Name: | Christopher Goff |  |  |
| Title: | Project Team Member |  |  |
| Role: | Project Management |  |  |

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| --- | --- | --- | --- |
| Signature: | Michael Loquist | Date: | 03/04/2017 |
| Print Name: | Michael Loquist |  |  |
| Title: | Project Team Member |  |  |
| Role: | Project Manager |  |  |

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| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: |  |  |  |
| Title: |  |  |  |
| Role: |  |  |  |