# STEAM PROGRAM
## (Science, Technology, Engineering, Art, Math)

## PARTICIPANT GROUPS & TASKS

### Virginia Palmer Elementary School Modernization Project

School construction projects that are constructed on an occupied campus present a unique opportunity to enhance the academic and pedagogic mission of the school. This document outlines the implementation for STEAM Focused Educational Engagement during the design and construction period, which often can last from 1-3 years depending on the size and complexity of the project. The process requires participation from WCSD capital projects staff, the design consultants, the contractor, sub-contractors and school leadership & teaching staff. It is the intention that this effort be focused and, integrated into the academic instruction of the school being modernized. The scope of educational engagement shall be appropriate to the size, scope, grade and engagement of the school. For example, the instructional activities for an elementary art school class can be quite different than a middle school math class or high school electronics class. This document is intended to be a guide only and can be expanded to meet the unique needs of each school and level. **See STEAM PROCESS.**

Each participant group below will identify 1-2 representatives/staff to participate in the STEAM program as defined below and appropriate for each task.

**Education Liaison (EL) & School Leadership** – The Education Liaison and school leadership are responsible for setting overarching goals for the STEAM engagement The Education Liaison will lead the planning, development & implementation of the educational engagement and school leadership will provide guidance on the development of the educational activity plan and assist in scheduling teacher and staff time for educational planning. as well as coordinating ancillary messaging such as campus safety protocols.

The EL will document, collect all data of the engagement process for each project and provide the summary document to Capital Projects to:

a. Support District communications of the ongoing activities at the site.
b. Collection of evidence of educational performance of the district.
c. Used for reference for future projects

**General Contractor/CMAR and Trade Partners –** The Contractor or Construction Manager at Risk (CMAR), in conjunction with an education liaison, school leadership, and teaching staff, will help develop education content for STEAM activities during construction. They will assist with developing the schedule for activities to ensure minimal disruption to construction & safety during all site visits. The Contractor or CMAR may choose to bring enhancements or outside experts to add further content to each activity.

**Architect/Engineer(A/E) & Sub-Consultants** – The consulting team will work collaboratively with the EL, General Contractor/CMAR in the development and presentation of educational activities. The A/E Team will, where needed, assist in the development of graphic material to support educational content delivery. The A/E and consulting team will, where needed, lead the educational content development and delivery.

**School Leadership / Teaching Staff** – School staff will work with the project team to develop the educational plan and schedule. Teaching staff will identify opportunities where in-class content and project team education activities are aligned for the purposes of in-class content.

**District Facilities Leadership & Staff** – District Facilities Staff will be involved throughout the planning and engagement process. The engagement plan and schedule will be reviewed and approved by Facilities Staff. Where appropriate, additional District input and review will be provided. Staff will coordinate all activities as appropriate.

# ENGAGEMENT PROCESS

| Task | Personnel/Resources | Activity / responsibility | Duration/Timeline |
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| **Curriculum Planning Meeting #1**: Overview of STEAM program with all school staff to discuss the program opportunities and objectives. | Design consultants 1-2 staff<br>Contractor 1-2 staff<br>Sub- contractors 1-2 staff<br>WCSD Cap. Projects 1-2 staff<br>WCSD Student Advisory 1-2 staff<br>WCSD - All teaching staff and school leadership | Design team leads presentation of how the STEAM process can enhance instruction and ideas on how to do so.<br>Contractor and WCSD there for support.<br>School leadership shall encourage participation | 30 minutes |
| **Curriculum Planning Meeting #2**: Meeting with interested teaching staff. Instructors start to establish education objective relative their course. | Design consultants 1-2 staff<br>Contractor 1-2 staff<br>Sub- contractors 1-2 staff<br>WCSD Cap. Projects 1-2 staff<br>WCSD Student Advisory 1-2 staff<br>WCSD - All teaching staff and school leadership | Education liaison and A/E lead discussion to help identify areas where staff can utilize design and construction themes into their instruction and how the STEAM activities can overlap with additional mandates such as, Student Learning Objectives, Project based learning, School performance plan within the academic dept./team, student-led presentations or parent nights etc. | 1 hour |
| **Curriculum Planning Meeting #3:** Meeting with interested teaching staff and site leadership to determine content areas that can be covered during STEAM process. | Design consultants 1-2 staff<br>Contractor 1-2 staff<br>Sub- contractors 1-2 staff<br>WCSD Cap. Projects 1-2 staff<br>WCSD Student Advisory 1-2 staff<br>WCSD - All teaching staff and school leadership | Educational liaison and Design Team help to facilitate the content areas to be covered with contractors during STEAM process.<br>Identify and match the contractor/sub-contractors with the teaching staff based on the content. | 1 hour |
| **Café meeting # 1**<br>Round tables<br>This may shift to be more of a match of teachers with contractors based on content at these round tables to develop activities to enrich the STEAM content to be covered. | Design consultants 1-2 staff<br>Contractor 1-2 staff<br>Sub- contractors 1-2 staff<br>WCSD Cap. Projects 1-2 staff<br>WCSD Student Advisory 1-2 staff<br>Interested STEAM teaching staff and school leadership | Design team/Contractor/WCSD will present their careers, including roles and responsibilities. Teachers can go to subject tables for a 10–15-minute presentation. Staff will connect these learning opportunities to their content standards and collaborate to generate a list of possible student activities to take place during the design/construction process. | 1 - 1.5 hours |

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| **Café meeting # 2**<br>Meeting to plan with contractors/sub-contractors and teaching staff to finalize lessons and activities, identify dates for lessons, and determine additional resources needed. | Design consultants 1-2 staff<br>Contractor 1-2 staff<br>Sub- contractors 1-2 staff<br>WCSD Cap. Projects 1-2 staff<br>WCSD Student Advisory 1-2 staff<br>Interested STEAM teaching staff and school leadership | Members of the Design and construction team will meet with staff to continue to develop implementation of student activities and or establish a collection of ongoing STEAM engagements, presentation, teaching opportunities, tours, and references to building design/construction to be used annually as teaching tools for integrated curriculum. | 1-1.5 hours |
| **Student Activity/Lesson:**<br>These activities/lessons may be prepared collaboratively with the contractor, sub-contractors, engineers, Architect, and the teaching staff. These activities/lessons can be taught directly to students utilizing the teaching staff and or experts within the design & construction field. | Design team, construction team, Capital Projects, student advisory, teaching staff as required and appropriate for identified activities. | | Depends on grade level & or activity.<br><br>Learning activities could be a single event, or occur weekly, or monthly. Steam process could continue over multiple years or the process could restart annually if needed or requested by the school due to new staff & students. |