During the 2010-2011 school year, assessment input was received from multiple sources listed below. Based on the stakeholders input, changes were made to the program as deemed appropriate in an effort to continuously improve the program. These changes are noted under the outputs.

Construction Advisory Board (Fall 2010 – Spring 2011)
Appendix G

The CAB is pleased with the improvements made to the Construction Science and Management and towards the progress being made towards ACCE Accreditation.

Input suggestions made the CAB were:

1. More field trips
2. More guest speakers in classes
3. Exploring the possibility of requiring the AIC, Associate Constructors Exam for graduating seniors
4. Faculty internships
5. Increase CAB to 12 members
6. Request the Dean of the College of Science and Engineering to attend a future CAB meeting
7. Increase the length of the Internship program (TECH 4390) beyond the current 23 days and 184 hour requirement
8. Encourage students to participate in construction student competitions
9. Continue progress towards ACCE Accreditation

Outputs:

1. More field trips have been incorporated into appropriate construction classes. This has been made easier by the large amount of construction on campus. Also Construction Student Association (CSA) provides field trips as part of their activities.
2. More guest speakers have been invited to speak in appropriate construction classes.
3. We are currently in the process of applying to AIC to become a testing so we can make it easier for our students to take the test. We then want to run several students through the exam and determine if we will make it a program requirement or an option for the student.
4. We are continuing to explore providing faculty internships for instructors and we are using Faculty Development Leaves for tenured faculty to gain additional field experiences.
5. We currently have 11 CAB members, with an invitation extended to Turner Construction to join, which will make 12.
6. The Dean of the College of Science and Engineering did make a visit to the CAB’s October 26, 2011 meeting. This meeting was used as an opportunity for the Dean and CAB members to get to know each other. Also, the CAB mentioned a “Professional” faculty position that would be based on industry experience more than academic requirements. The Dean expressed interest and wanted examples of this type of position from other universities.
7. The idea of increasing the length of the internship is under discussion in the department which brings with it associated workload issues. However, it is generally agreed that the internship needs to be expanded to 10 weeks and 400 hours, up from the current 23 days and 184 hours.
8. Students have now competed in the ASC Region V, Commercial and Design Build Division and are planning to compete this Spring in the ABC competition.

9. Steady progress is being made towards ACCE Accreditation with the target date to submit the Final Self-Evaluation before May 2012.

Alumni Survey (Graduates)
Appendix Q

Every three years an Alumni Survey is sent to our past graduates to gain useful information on how well the construction program prepared them for their career. Please note that several comments made concerning the relevancy of courses have been addressed in the new Bachelor of Science in Construction Science and Management Degree with a Business Minor, which went into effect in the Fall of 2010. All students responding to the 2009 survey received the Bachelor of Science in Technology with a major in Industrial Technology – Construction Technology Degree. Our next 3-year Alumni Survey will be completed during the summer of 2012, with the results being available to the visiting team.

Inputs:

1. Students were very satisfied with their choice of construction for a major with a rating of 4.52 on a five point scale. (1=Not Satisfied to 5=Very Satisfied).
2. All respondents would have chosen construction again as a major.
3. Skills or knowledge that would have made them more effective in their courses are:
   - Management courses
   - More scheduling
   - Plan reading
   - MEP’s
   - Excel Spreadsheets
   - Construction documents
   - Dirt work and site preparation
4. All seven Departmental Program Outputs were met, with scores over the threshold of 3.5 on a 5 point scale.
5. One of the common comments was to eliminate courses in the major that do not relate to construction.

Outputs:

1. To encourage student to become both engaged and excited about their major, the TECH 1260 course, “Introduction to the Construction and Concrete Industry” course was created. In this course, they are introduced to their major, hear invited guest speakers and participate in jobsite tours/jobsite observations. Also, we have strengthen the Construction Student Association (CSA) to include student competitions, professional activities, provide the OSHA 10-hour Construction Safety course and increased social activities such as the Homecoming Tailgate where both alumni and student meet in a social environment.
2. We plan to continue to improve the construction program so all alumni will unanimously agree they would take construction again as a major, such as they did in the 2009 survey. Also, the Pre-Construction curriculum, which all construction majors are required to complete, will help students decide early in their college career, if the construction major is for them or should they consider an alternative major.
3. The new BS-Construction Science and Management Degree (Fall 2008) replaced most if not all the courses students mentioned as not being relevant to the degree. This irrelevant courses
were found in the former BST-Construction Technology Degree. New courses added to the CSM degree include:

- TECH 3367 – Mechanical, Electrical and Plumbing Systems
- TECH 3366 – Soils and Foundations

Also, several of the alumni responding to the survey were not required to take other recently added major courses such as:

- TECH 2351 – Statics and Strengths of Materials
- TECH 3363 – Heavy, Civil and Highway Construction Systems
- TECH 3360 – Structural Analysis
- TECH 4368 – Environmentally Conscious Design and Construction
- TECH 4369 – Construction Contracts, Liability and Ethics

To compensate for the request for more management/business background in their major, a formal 18-hour Minor in Business Administration was added to the BS-CSM Degree. This minor includes the following 18-hours of business courses:

- ACC 2361 – Accounting in Organizations and Society
- ECO 2301 – Principles of Economics
- BLAW 2361 – Legal Environment of Business
- CIS 3317 – E-Business
- MGT 3303 – Management of Organization
- MKT 3343 – Principles of Marketing

4. We plan to continue to improve the ratings of the seven (7) Departmental Program Outputs, with the goal of having all 4.0 or higher. This will be accomplished through our Quality Plan, with many of the program improvements mentioned in this section.

5. The most common complaints were either to eliminate courses that were not major relevant or to add additional content. Most, if not all these issues were addressed in the new CSM curriculum. The next alumni survey to be conducted during the summer of 2012 should reveal how much progress we have made since the last alumni survey done during the summer of 2009.

Alumni Survey Results (Graduating Seniors) 2010 and 2011

Appendix C

During July of each year, Office of Institutional Research, under the direction of Joe Meyers, sends an “Alumni Survey” to all graduating seniors from the past calendar years (May, August, December) graduating seniors. This extensive survey provides a valuable source of information from our recently graduated seniors. The survey provides a mean and standard deviation for each response requested by the construction majors. This information is compared to the University’s mean standard deviation for the same questions. If the mean for the construction major is significantly higher than the university mean, it appears in red (R) or if it is significantly lower than the university mean, it appears in green (G). This means in red indicate that the program is not doing as well as the University on that particular question. Means in green indicate that the program is performing better on that particular question compared to the University.

Inputs (areas of concern that are significantly higher or lower than the university mean):

1. Quality of advising you received from faculty in your major department (higher)
2. Quality of instruction for your major at Texas State (higher)
3. The appropriateness of the subject matter for classes in your major at Texas State (higher)
4. To what extent did your education at Texas State affect your personal development in critical and logical thinking? (higher)
5. How satisfied are you with your current job? (lower)
1. To improve the quality of advising received by students from their CSM faculty advisors, we have initiated the following:

- Training sessions for all CSM faculty on advising both from the College of Science and Engineering Advising Center on general advising rules and by the Construction Coordinator on advising major specific advising were given.

- Developed standard advising forms for use by all CSM Advisors and training on how to use them.

- Require all students enrolled in TECH 1260, Introduction to the Construction and Concrete Industry to see their assigned CSM advisor before registering for their next semester classes.

- Developed a CSM Advisor List, which assigns students to their advisor based on the last two digits of their student number. The list also includes office location and office hours of the CSM Advisor.

2. To improve the quality of instruction in the CSM major, we have initiated the following:

- Hired a new faculty member to replace an assistant professor who was let go after teaching for one year and added two new instructors, both with industry experience. We strongly believe that the new tenure track faculty member, Dr. Talley (December 2011) and our new instructor hires, Ms. Spencer and Mr. Sharma will improve the teaching quality in the department.

- Added two more Department Program Outcomes to give the CSM Program seven up from the original five. Their appropriate Department Program Outcomes are mapped back to each course where specific course outcomes are developed. (Appendix S)

- We now have an extensive system in place that assures that appropriate content is taught in each class. First, we map the course content back to the ACCE curriculum matrix. We also map the course content back to the Departmental Program Outcomes to ensure that the appropriate content in the course is being taught. We also seek input from the CAB, students, internship supervisors and employers to modify the course content as needed. As more students graduate, who have went through the new CSM program, it is expected that we will see an improvement in this category.

- We are incorporating more “experimental learning” and problem solving techniques in our classes, which we believe will develop the students’ critical and logical thinking skills.

- Note that students rated the question that asked how satisfied they are with their current job much higher than the university average. This means they were very satisfied with their current positions in the construction industry.
At the end of the internship, the company’s supervisor is asked to complete a final evaluation of the student. This evaluation consists of five sections. The first section requires the supervisor to rate the student on 15 characteristics, along with four (4) open ended questions. The second form asks them to rate the five (5) program learning outcomes. (Note: Will be expanded to seven (7) Department Learning Outcomes during the summer of 2012).

1. The ratings on the 15 characteristics such as “Responsibility and Quality of Work” were all rated much higher than our threshold level of 3.5 (70%). In fact, none fell below 4.0 (80%) on a 5-point scale. We believe these ratings will improve even more as students begin to graduate with the new CSM Degree which was implemented in the Fall of 2010.

2. The “Learning Outcome Assessment – Industrial Supervisor’s Evaluation” (Appendix G1) form is where the supervisor is asked to rate the student on the five (5) Departmental Learning Outcomes. All were rated higher than the threshold of 3.5 (70%), with the lowest being rated a 4.1 or 82%. We believe that with the implementation of the new CSM Degree in the Fall of 2010, these ratings will continue to improve. NOTE: Based on CAB input, we plan to offer the Internship earlier in a student’s program and increase its length to 10 weeks.

TECH 4390, Final Self-Evaluation (Students)
Appendix N and N1

The students are asked to complete a Final Self Evaluation at the end of their Internship. This evaluation consists of two sections. Section one has students respond to specific questions regarding their particular internship, along with questions on how to improve the Internship Program. The second section is very similar to the Internship Supervisor’s form, where the student is asked to rate how well they feel they have mastered the five (5) Department Learning Outcomes. (Note that for the summer of 2012, there will be seven (7) Departmental Program Outcomes).

1. A summary of the student’s “Final Self Evaluation” revealed specific comments from the student about their particular internship, but no noticeable pattern upon which to expect several mentioned extending the internship program beyond the current 23 days and 184 hours.

2. The “Learning Outcome Assessment” had all five Learning Outcomes rated higher than the threshold of 3.5, (70%) with the lowest rated at 4.2 or 84%. We expect to see these ratings improve as more CSM major begin taking the internship.

Faculty/Classroom Evaluations
Appendix J

This electronically scored, university required, 31 question evaluation sheet is administered at the end of each semester. Instructors are allowed to review the results after final grades have been submitted.

1. A review of the numerical results which compare the instructor’s average and standard to the departmental average and standard deviation showed no systemic problems.

Currently, we have limited information on one instructor, who was rehired after an absence from the department and one new tenure track faculty (Spring 2012). We will review their evaluation sheets at the end of the Spring 2012 semester along with all construction faculty and suggested improvements for the next semester as deemed appropriate.
Student Reaction to Instructor and Course  
Appendix J1

This six (6) question survey form requires students to answer these open ended questions. This survey is required to be completed in all courses taught by tenure track faculty and optional for others. These survey forms are used along with other sources of teaching information to evaluate tenure track faculty during their annual reviews. Since this information is instructor specific, no general program conclusions are usually drawn. However, a detailed write up on an instructors teaching is written by the “Personnel Committee” (Senior Faculty) and Chair, which is submitted to both the instructor being evaluated and to the Dean. These reviews are shared with the faculty member and appropriate changes to their teaching are recommended. Since these evaluations are highly sensitive, they will be made available to the ACCE visiting team upon their request.

Academic Program Student Learning Outcome Assessment (Required for SACS)  
Appendix L

Each year the department is required to complete its annual SACS, “Academic Program Student Learning Outcome Assessment” of its undergraduate program. As indicated in the SACS report found in Appendix L, the assessment over the last four years has not been consistent. However, beginning with the 2010/2011 report, an attempt has been made to standardize this process with more reliable results expected in the 2011/2012 report. This modified template was necessary because of the changes made to the seven “Departmental Program Outcomes” specific to the construction program. These outcome changes were necessary in part, because of the changes made to the construction program as it made the change from the former Bachelor of Science in Technology with a major in Industrial Technology – Construction Technology Degree to the current Bachelor of Science in Construction Science and Management Degree with a Business Minor. This new degree took effect during the Fall 2010 semester.

Therefore, the first meaningful results from this new reporting system will not be available until the Fall of 2012.

2008 – 2012 Strategic Plan Summary and Comments  
Appendix S

Please refer to Appendix S for a summary of accomplishments based on the 2008/2012 Strategic Plan and for a copy of the new 2012/2017 Strategic Plan.
QUALITY PLAN

Input and Output Chart

Graph 1: Quality Plan – Input and Output Chart