A Condensed Checklist for Engineering Changes

These are 6 steps which can be followed to ensure each piece of engineering work is developed with clarity. In every step it is essential to pause and reflect for a moment before moving on: Is there anything I could improve upon thus far?

1 Explain the pros/cons of different approaches.
2 Describe the changes you will make in your preferred approach.
3 Make the changes, i.e. modify source code.
4 Explain how others can repeat your checks and what they should expect.
5 Describe the limitations of your changes.
6 Provide a history of how the work progressed.

Materials from the middle steps are increasingly formal, with source code being completely formal. The formallity is related to how much effort you should demonstrate, i.e. "make the changes" is only a small item in the middle. From your colleagues' perspective, the most important thing is the visibility of the care and effort that you have put into understanding the problem and producing a well-considered solution.

You can, and should, reach out to your colleagues for assistance at any point that you don't understand something. It is important to keep notes which you can refer back to, both when you're doing your own work, and when receiving guidance/assistance from others.