**HFC Sample Design Questionnaire**

**Customer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / Location:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_**

Is this project a Rebuild, Upgrade or New Build? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is the new bandwidth and channel load target?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Existing System Bandwidth**
   1. Forward: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_MHz
   2. Reverse: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_MHz
   3. Analog Channel Loading: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Other Information: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. **Existing Plant**
   1. Total Cascade Trunk/Feeder \_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Feeder Cascade Only: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. **Existing Cable Types (Manufacture / Model)**
   1. Trunk Cable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Feeder Cable\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Drop Cable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Typical Drop Length \_\_\_\_\_\_\_\_\_\_ft., Long Drop Length \_\_\_\_\_\_\_\_\_\_\_\_ft
4. **Existing Nodes & Amplifiers (Manufacture / Model)**
   1. Nodes\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Trunk Stations \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Line Extenders \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Trunk Station-Operational Gain\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dB
   5. Bridger-Operational Gain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dB
   6. Line Extender-Operational Gain\_\_\_\_\_\_\_\_\_\_\_\_\_ dB
5. **Existing Taps and Passives (Manufacture / Bandwidth)**
   1. Taps / Frequency: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_MHz
   2. Passives / Frequency: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_MHz
   3. Inline Equalizers:\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_MHz
6. **Existing Design Parameters**
   1. Trunk Output Levels: High:\_\_\_\_\_\_\_\_\_\_\_dBmV / Low: \_\_\_\_\_\_\_\_\_\_\_\_dBmV
   2. Feeder Output Levels: High: \_\_\_\_\_\_\_\_\_\_\_dBmV / Low: \_\_\_\_\_\_\_\_\_\_\_\_dBmV
   3. Feeder Output derates (if any):\_\_\_\_\_\_\_\_\_\_\_dBmV/ Low: \_\_\_\_\_\_\_\_\_\_\_dBmV
   4. Minimum Tap Output Levels: High \_\_\_\_\_\_\_\_dBmV / Low \_\_\_\_\_\_\_\_\_\_dBmV
   5. Maximum Allowable Crossover: \_\_\_\_\_\_\_\_\_dB (legacy, mid, high split?)
   6. Cascade Length; (Node + ?? amps) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. **New System Requirements (these questions for NEW equipment in the plant)**

Is TDD service planned? Y/N\_\_\_\_\_\_\_\_\_\_\_(if no, fill out 1,2 below for FDD)

* 1. Target downstream bandwidth: \_\_\_\_\_\_\_\_\_\_\_\_\_MHz (for all services-new and legacy)
     1. Analog channel loading requirements (BW, channel count, location): \_\_\_\_\_
     2. Broadcast digital tier (BW, channel count, location): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     3. Narrowcast digital tier (BW, channel count, location): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     4. EPoC services (BW, channel count/modulation, location): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     5. Other co-existing signals (OOB, pilot, etc.): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  2. Target upstream bandwidth: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_MHz (for all services-new and legacy)
     1. Legacy CM (BW, channel count, location): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     2. Legacy STB channels (BW, channel count, location): \_\_\_\_\_\_\_\_\_\_\_\_\_\_
     3. EPoC services (BW, channel count/modulation, location): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     4. Other co-existing signals (OOB, pilot, etc.): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  3. What new cable will be utilized: \_\_\_\_\_\_\_\_\_\_\_\_\_ % of new cable allowed: \_\_\_\_\_\_\_\_\_\_
  4. New input/output levels at tap port: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
  5. What type of RF Active equipment: \_\_\_\_\_\_\_\_\_\_
  6. What type of Taps: \_\_\_\_\_\_\_\_ / Passives: \_\_\_\_\_\_\_\_\_\_\_\_

1. **New System Requirements for TDD**
   1. Target Combined BW for DS/US services: \_\_\_\_\_\_\_\_\_\_\_
   2. Location in spectrum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Estimated RF levels in each direction \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_