

PROJECT XYZ

SAMPLE CONSTRUCTABILITY REVIEW

1-Jan-00

Section V, Bid Scope Comments/Suggestions

Note: The items in this section can be provided in the form of leveling sheets as suggested scope divisions if requested

<u>Item No.</u>	<u>Dwg.</u>	<u>Clarification</u>	<u>Notes</u>
1	X/A-YY	Be sure the aluminum wall anchors are picked up. (note, we have requested make/model for these anchors from the architect in the above section.)	
2	C-XXX	Be sure the low height metal gates/railings @ northwest corner of site are picked up by the misc metals sub.	
3	A-XX	Be sure framer picks up steel posts at type "P" and "Q" low height walls where they do not end @ a full height partition. The posts are not indicated on the drawings, but will likely be required.	
4	C-XX	Be sure painter picks up CMU retaining wall on west side of building. This wall is indicated only on structurals and civils.	
5	L-XX	Several (if not all) of the trees on Main Street will likely need to be removed and replaced for Construction access. These are noted to remain as existing trees to be protected in the contract documents. Be sure Demo and Landscape Subs pick up removal/replacement. Also, be sure city grants approval to remove these trees, if the city does not grant approval protecting them and the hampered construction access will be quite costly. Should resolve this issue prior to execution of Prime Agreement b/w GC and Owner.	
6	C-XX	Drawings do not indicate if the shoring tie-backs in this city must be de-tensioned. If they do need to be de-tensioned be sure this is included in shoring Subs scope. Also need to be sure concrete sub has blockouts around tie-backs and comeback work to fill the blockouts. Also waterproofing sub needs to know what type of penetration they will need to seal.	

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7	C-XX	Be sure excavation Sub has a) removal of spoils from tie-backs, b) removal of spoils from drilling for shoring piles, c) removal of spoils from de-watering wells, d) moving and/or coordinating the ramp with the shoring sub and e) will likely ask them to dig for dewatering piping underground across ramp.	
8	C-XX	Suggest adding a rat slab at the base of the excavation. Be sure excavation and concrete subs have their respective scopes of work in their base bid if this option is taken. ALSO - be sure waterproofing manufacturer is on board with how the rat slab will impact their system, some membrane manufacturers have concerns about using rat slabs.	
9	L-XX	On the south side of the building there is a short curb shown running along the building face next to the loading dock on sheet A-XX, be sure this is picked up, it's not shown on the Landscaping drawings.	
11	L-XX	Be sure site concrete sub picks up exterior bollard installation (including concrete fill). Be sure Misc Metals and Landscape Subs are clear on who furnishes steel pipe bollards versus the Architectural manufactured bollards.	
12	A-XX	Be sure to cover installation of interior pipe bollards, misc metals guy will likely try to furnish FOB only, also need the concrete fill covered.	
13	1/L-XX	This is a chain link product with a custom frame. Suggest having misc metal Sub pick up this entire assembly and exclude from chain link Sub scope.	
15	02000	There is a great deal of irrigation piping through the building to patio planters. Be sure the irrigation lines are properly scoped between the plumber and landscaper.	
16	02900	Maintenance in spec's is unusually long at 4 months, landscape bidders may try to qualify only 30 or 60 days.	
17	A-ZZ	Be sure all concrete pads are picked up by rebar and concrete subs, including the pads necessary but not shown on MEP drawings.	
18	S-XX	Be sure all blockouts through concrete walls are properly covered by subs, including the blockouts necessary but not indicated on the MEP drawings.	
19	11/S-YY	Be sure misc metals sub picks up all support steel for duct penetrations throughout. This will be a significant amount of steel.	

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20	A-XX	Be sure tower crane capacity is properly transmitted to bidders and assure they have all necessary hoisting beyond the limits of the tower crane. Also, may want to plan on the tower crane beginning work at least an hour early and staying at least an hour late daily for misc picks. This is the safest time to pick and also gives other trades the opportunity to make misc. picks during activities like steel erection where the crane will be tied up with a single trade.	
21	1/S-YY	Be sure welding of rebar is picked up.	
22	S-XX	Be sure rebar caps are picked up, rebar subs are all excluding this these days due to their insurance requirements.	
23	1/A-YY	Be sure mesh at stair pans is picked up	
24	A-XX	The exterior skin consists of a collage of metal panels, GFRC, plaster, flashings, painting, misc. metals, etc... It will be difficult to identify one primary sub to pick up the scaffolding, suggest having the GC pick up the scaffolding for all trades.	
25	C-XX	Be sure off-loading/staging plan is properly conveyed to subs prior to bidding, including additional lane closure work/equipment/permits, flagmen, and all other labor responsibilities. The access to the site is very tight and will likely become extremely congested throughout construction.	
27	A-XX	Be sure concrete sub has all embeds, whether shown on the drawings or not.	
28	C-XX	Be sure concrete sub is offhauling their own spoils. Suggest having them make final grade to edge of asphalt to assure they are responsible for the backfill and clean-up work associated with their scope.	
30	1/A-XX	Be sure concrete sub has filling stair pans.	
31	03300	Be sure concrete sealer is picked up, but not double covered. Sometimes the GC and Sub will both plan on doing this work.	
32	03400	Be sure grouting HM door frames at CMU walls is picked up by mason	
33	08000	Be sure setting door frames in all scenarios (concrete, CMU, Framing, etc...) are covered, but not double covered.	
34	02000	Confirm compatibility of lagging with waterproofing system and what level of prep work will be required, if any.	

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35	03000	Be sure concrete sub picks up installation of AB's (possibly embeds too) for Owner furnished equipment. Also, confirm the Owner will be furnishing the embeds/bolts for their equipment. The Owner may not even have a supplier on board by the time AB's are needed.	
36	16000	Be sure light pole bases are properly scoped between electrician, concrete and rebar subs.	
37	03300	Be sure rebar templates are picked up.	
38	03300	Be sure all misc. concrete curbs, pads, etc... Shown on architectural are picked up, concrete sub's often qualify their bids per struc doc's only. Details 1/A-XX1, 2/A-XX2, 3/A-XX3 and 4/A-XX4 in particular.	
39	03300	Confirm roof/equipment curbs are properly scoped between pre-fab curbs provided by MEP subs, concrete curbs/pads and wood curbs/sleepers. For small fans, pumps and other misc. equipment the drawings indicate only that curbs/pads are necessary, they do not specify type to construct for misc small equipment.	
40	03300	Suggest (if shotcrete is allowed on project) using dead space below bottom level parking ramp as place to dump rebound. This will also eliminate the need to form this depression. (If shotcrete is not allowed/used need to be sure concrete sub plans for fire treated lost formwork to assure sprinklers are not needed in dead space.	
41	05000	Be sure both furnishing and installation of stair nosings are properly picked up.	
42	03000	Be sure grouting is picked up by appropriate trades. Struc Steel and Precast Subs typically exclude this.	
43	05000	Be sure Struc and Misc Metals touch up painting is properly picked up.	
44	10/A-YY	Be sure flashing at base of GFRC is picked up, GFRC Sub will likely exclude	
45	07900	Be sure caulking is properly covered. Suggest putting together a caulking matrix to assure all sealants are accounted for.	
46	01000	Be sure permit fee's are properly covered. Subs will often exclude. Be sure procuring permits is also properly covered, as this is a very timely process.	

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47	1&2/A-YY	Properly and completely scope misc metals for GFRC. Be sure Sub has 100% of misc steel beyond what is indicated on the drawings. See details 1&2/A-YY, these section cuts indicate a significant amount of steel that the Misc Metals and GFRC Subs may both think the "other guy" is doing.	
48	1/A-XX	Be sure Fire Caulking/Safing at heads of CMU walls are covered, CMU Subs often exclude	
49	1/A-XX	Be sure clips @ heads of CMU walls are picked up. Also, need to properly scope bolts for these clips and whether the Misc. Metals sub will drill or the concrete sub will place the AB's. (suggest drilling)	
50	1/A-XX	Be sure caulking @ drywall, brick, etc...control joints is properly covered. Locations for these are not indicated on the drawings.	
51	1/A-YY	Need to be sure corner guard installation @ CMU and concrete walls is picked up.	
52	M-XX, S-XX, P-XX, E-XX	Appears beam penetrations will be required at several areas, suggest quantifying and having the struc steel bidders assume "X" quantity in their proposals. This will assure is least a good portion of the penetrations are priced using "bid rates". In particular see SD lines @ grids 1/A and 2/B and SS lines at grids 3/C and 4/D. Either beam penetrations or lowering the ceilings will be required along these runs.	
53	1/S-YY, 2/S-YY, 3/S-YY, 4/S-YY, 5/S-YY	Be sure these embeds are picked up. The struc steel sub will likely exclude as they are not part of the primary structure, but the misc. metals sub will likely exclude all structural drawings	
54	6 thru 10/S-YY	Be sure decking ledger angles are picked up by either struc steel, misc metals or metal decking subs, be sure also they are not double covered.	
55	1/A-YY	Be sure misc metals sub picks up misc steel for toilet partition supports	
56	A-YY	Ceilings of rooms 1234, 2345, 3456 and 4567 call for painted exposed ceilings. Need to be sure decking and ductwork is easily paintable (paint-lock).	
57	1/S-YY and 1/A-YY	Be sure decking perimeter closure angles (1/S-YY) and ledger angles (1/A-YY) are properly scoped.	
58	1/A-YY	Be sure counter supports are picked up by either misc metals or casework sub, and not double covered.	

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59	11/A-YY	Be sure elevator sump pit frames/grates are picked up by misc metals. Also, be sure the elevator ladder is picked up and not double covered (note: some elevator subs are starting to pick up the misc metals items in the elevator pits on their own)	
60	11/A-YY	Be sure misc metals picks up embedded angle for coiling doors, but not guide rails.	
61	21/A-YY	Detail indicates edge angles for elevators, but elevator subs have recently eased their requirements for these embedded angles. Confirm with Elevator bidders if these angles can be eliminated, otherwise be sure they're picked up.	
62	11/A-YY	Be sure the gauge metal infill panels at the stairs are picked up. The misc metals sub may exclude gauge metal, thus leaving these panels orphaned.	
63	1/E-YY	Be sure light posts per 1/E-YY are picked up. These are a misc. steel post with the light fixture mounted to the top. Conduit will need to run through misc steel assembly and the electrical sub won't likely be picking up these posts or footings.	
64	11/A-YY	Be sure expansion joint sub picks up fire barrier and aluminum coverplates	
65	09300.1.2.3	Be sure sealer @ ceramic tile is picked up	
66	09600.1.2.3	Be sure floor waxing is picked up	
67	08800	Be sure all glass is picked up. interior glass, door lites and non-framed mirrors are often missed.	
68	P-XX	Be sure all controls conduit is picked up. HVAC sub may pick up their own controls conduit, but the conduit necessary for the Plumbing Sub is often missed, the 3 sump pumps (Pumps-11, 12 & 13) will need controls conduit. Coiling doors, DI system, motorized shades, card readers, H/C door operators, etc...	
69	E-XX, P-XX	May want to include allowance for pans below plumbing/sprinkler lines in electrical rooms. Note rooms 1234 and 2345 will likely have sprinkler mains running over electrical equipment. The SS line may likely run over the equipment in room 2345. These conflicts might be eliminated during the MEPF Coordination.	
70	11/A-XX	Be sure plugging the nail holes in the field painted casework and trim is properly scoped between the casework/millwork sub and the painter.	

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71	11/A-YY	Confirm glass in millwork doors is properly scoped between casework and glass subs.	
72	21/A-YY	Confirm insulation below pavers is properly scoped between waterproofer, insulation sub and paver sub. Waterproofing sub will likely pick up the insulation.	
73	07900	Be sure caulking @ HM door frames is covered.	
74	07000	Be sure all MEPP, steel and other subs provide lead roof jacks, galv jacks are not compatible with built up roof.	
75	07600	Be sure metal panels above storefront w/louvers are properly scoped. Suggest having glass sub pick up the metal panels and louvers so they can be painted with the storefront and assure a proper match.	
76	1/M-XX	Be sure security bars at AHU supply and return ducts are picked up. The way this is detailed it appears to be a misc metals item, but is on Mech drawings.	
78	A-XX1-A-XX10	Suggest qualifying with framing sub that their scaffold be erected immediately behind the structural steel so that it can be used for fall protection. Hold them contractually responsible for this to avoid the additional cost of guardrails at every floor. This will also help push the schedule.	
79	09650	Determine responsibility and risk for floor sealing due to high moisture content between Contractor and Owner. This is a variable cost, suggest addressing as an allowance with the expectation of competitively bidding any/all work once moisture readings are attained. This is a suggestion to fairly account for this variable cost.	
80	10000	Be sure scope for trash chute is properly made. Trash Chute suppliers typically furnish the electric interlocks, Smoke & Heat detectors and sanitizing & sprinkler heads for intallation by others. Be sure Electrician, Plumber and Sprinkler subs have scope.	
81	10000	Be sure closure panels from top of walk in coolers/freezers are picked up (stainless steel) These aren't graphically shown in the documents, but are referenced in the spec's. Also, be sure all health dept. required caulking and sealants are picked up, again these sealants aren't graphically indicated on the drawings, but are referenced in the spec's.	

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82	11000	With regard to the kitchen equipment: Be sure lighting, condensate drains, heat trace on freezer condensate lines, pads for condensing units @ roof, raceways for refrigerant piping, raceways for controls conduit, trench drains, final MEPF connections and kitchen sink drains to floor sinks are properly picked up.	
83	14000	Discuss construction use of elevators with Owner and cost of extended warranty such that upon turnover of the building to the Owner the full warranty per the specifications will be provided.	
85	14000	Be sure final terminations for FA, Phone are picked up @ elevator machine room. Also, confirm where elevator sub begins responsibility for line voltage power, suggest having elevator sub pick up all work beyond the disconnect.	
86	14000	Be sure elevator sub has emergency phone, 14000.1.2.3.4 calls for this, but they often exclude.	
87	14000	Spec's call for elevator to have non-proprietary controls, the Owner will strictly enforce this requirement to assure they are not locked in to a specific elevator company for repairs during the entire life of the building.	
88	15000	Be sure sprinklers within large AHU's are picked up.	
89	06000	Be sure plywood backboards at data and security rooms are picked up.	
90	15000	Be sure subs are clear on requirements for the plenum ceilings, particularly Electrical and Data subs.	
91	21/A-YY	Be sure steel angle is picked up	
92	A-ZZ	Provide loose roof jacks to the steel sub so they can slip them over the pipe kickers (in a different line item we've asked the structural engineer to change the angle kickers to pipe for waterproofing reasons) prior to welding the connections, thus elimi	
93	A-XX	Should have subs with painted fabrications pick up their own flashings (glass, louvers, metal panels) so the flashing can be painted with their respective products and assure a quality match.	
94	C-XX and P-YY	SS invert elevations on East side POC b/w Plumbing and Civils is called out at -3'-6", but this cuts through the center of the footing. Will need to step the footing down at this location to allow pipes to pass over the top of the footing.	