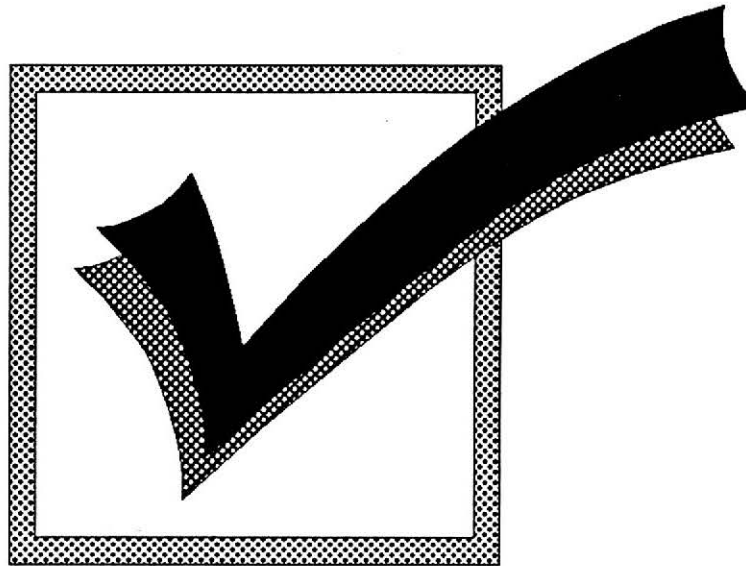




# Design Checklists

Los Angeles County Metropolitan Transportation Authority

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## ENGINEERING MANAGEMENT CONSULTANT

AN ASSOCIATION OF

Ferguson Brinkerhoff Quade & Douglas, Inc.  
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ICF-Kaiser Engineers (California) Corp.  
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**QUALITY ASSURANCE**

**DESIGN CHECKLISTS**





# DESIGN CHECKLISTS

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USE OF  
DESIGN CHECKLISTS



## USE OF DESIGN CHECKLISTS

### 1.0 PURPOSE

- A. Parsons Brinckerhoff/DMJM, Quality Assurance Department has developed comprehensive design checklists to verify inclusion of required items at each submittal milestone. Their purpose is to properly document completion of design elements and to identify design issues requiring additional coordination interface.
- B. These Design Checklists have been compiled jointly by Quality Assurance and the design departments. In an effort to effectively identify deficiencies, items are listed by discipline. Additional blank checklists have been provided to allow for inclusion of other items as appropriate.
- C. Communication among the design discipline groups will minimize discrepancies in verification and coordination. Key indicators of conformance to standards are formatted into checklists that identify areas requiring further coordination. The following is designed to assist in the usage of the Design Checklists.

### 2.0 PROCEDURE

- A. Prior to completion of each milestone submittal, the Design Checklists shall be completed for the required elements of the submittal. The Project Unit Manager shall ensure that a set of Design Checklists is completed for each discipline of work shown on the drawings or described in the specifications. These checklists shall be completed by the discipline lead (Arch/Eng) for each discipline involved in the work. These checklists should accompany the submittal to EMC Quality Assurance for their review and verification of the submittal.
- B. Design Checklists are distributed to the Project Unit Managers and various architects/engineers, and section designers by the Quality Assurance Department. These checklists will assist in defining the level of completeness mandated by the client and the Design Quality Manual.
- C. The checklists distribution will be scheduled approximately twenty (20) working days prior to the submittal date of the contract to the client. These checklist are to be completed and returned to the Quality Assurance Department within seven days of the submittal date. This will assure time for verification and/or revisions of work completed. The design checklists will be used as objective evidence that the document set is completed and checked.
- D. These completed design checklists shall be maintained as part of the project record of conformance to design requirements. Each Project Unit Manager shall retain the original of each completed checklist along with the record copy of the submittal.





### 3.0 INSTRUCTIONS

- A. The Design Checklist forms require the following information. (See sample forms at the end of the instructions.)
1. Reviewer: The individual conducting the review.
  2. Organization: Identifies the reviewers organization as the department, division and/or company.
  3. Discipline: Identifies the reviewer's area of specialty or the area of concentration for this review, i.e., architectural, civil, traction power, communications.
  4. Sheet of : Identifies the page and number of sheets in the Design Checklist.
  5. Project: Name of the line involved in the contract under review, e.g., Metro Red Line.
  6. Contract No.: Identifies the RCC number of the specific contract unit being reviewed, e.g., B241.
  7. Contract Title: Name of the particular contract unit of work under review, e.g., Wilshire/Vermont, Train Control, I 105 to Compton.
  8. Submittal: Identifies the review submittal state: Design Definition (Preliminary), In-Progress, Pre-Final, Final or Camera Ready.
  9. Date: The date the Design Checklist is completed.
  10. Discipline Name: Architectural, Systems Traction Power, Communications, etc.
  11. CK'D Y/N: Indicates whether the reviewer has checked the items listed by marking Y (Yes) or N (No).
  12. OK Y/N: Indicates that the items checked satisfy the requirements of the designated state of the contract work unit being reviewed or that the previous comments have been addressed or revised.
  13. NOTES: This area is reserved for any comments pertaining to a listed item for verification, follow-up or information. Blank design checklist sheets are provided to accommodate additional items.
  14. REQUIRED: Indicates in which submittal stages the particular item is required. DD = Design Definition (Preliminary), IP = In-Progress, PF = Pre-Final, F = Final, CR = Camera Ready.



B. Sample Design Checklists are arranged in the following order by discipline.

1. Sample I: Keyed to the instructions given above.
2. Specifications Items.
3. Cadd Items.
4. Environmental Items.
5. Right-of-Way Items.
6. Geotechnical Items.
7. Trackwork Items.
8. Civil Items.
9. Utility Items.
10. Structural Items.
11. Architectural Items.
12. Mechanical Items.
13. Electrical Items.
14. Elevators and Escalators.
15. Communication Installation & Gas Monitoring/Seismic Detection Procurement
16. Corrosion Control Items
17. Systems Communication - Closed Circuit Television.
18. Systems Communication - Telephone Items.
19. Systems Communication - Radio Items.
20. Systems Communication - Public Address Items.
21. Systems Communication - Fiber Optics.
22. Systems Communication - Cable Transmission Systems. Items.
23. Systems Communication - Train Control System Items.
24. Systems Communication - Transit Automatic Control and SCADA/TRACS
25. Systems Communication - Traction Power Items.



**SAMPLE  
DESIGN CHECKLIST**









**DESIGN CHECKLIST**

**SPECIFICATIONS ITEMS**



## DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 2Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

SPECIFICATIONS ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
1. Grammar						X	X	X	X	X
2. Spelling						X	X	X	X	X
3. Interface Requirements							X	X	X	X
4. Specification Table of Contents Correct							X	X	X	X
5. Accuracy of Codes and Standard References							X	X	X	X
6. General Conditions of the Contract (Supplied by RCC)								X	X	X
7. Special Provisions								X	X	X
8. Instruction for Bidders (Supplied by RCC)								X	X	X
9. Operations and Maintenance Provision								X	X	X
10. Form of Contract (Supplied by RCC)								X	X	X
11. Invitation for Bid (Supplied by RCC)								X	X	X
12. Reliability and Maintainability Requirements								X	X	X
13. Environmental Requirements								X	X	X
14. Schedule of Quantities and Prices								X	X	X
15. Submittals Specified								X	X	X
16. Acceptance Criteria								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 2

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SPECIFICATIONS ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
17. Testing Requirements with Acceptance Values								X	X	X
18. Third Party Requirements Included								X	X	X
19. Safety Requirements								X	X	X
20. Quality Control Requirements								X	X	X
21. Measurement and Payment Included								X	X	X
22. DBE/WBE/MBE Goals (Supplied by RCC)								X	X	X
23. Payment Item Definition									X	X
24. Bid Items Listed									X	X
25. Labor Compliance Requirements (Supplied by RCC)									X	X
26. Resolution of Design Review Comments									X	X
27. Forms for Bidding: including Bid Pricing Schedule (Supplied by RCC)									X	X
28. Final Contract Agreement (Supplied by RCC)									X	X
29. Prevailing Wage Tables (Supplied by RCC)									X	X



# DESIGN CHECKLIST

## CADD ITEMS





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CADD ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
1. Contract Number- size = 5/32" wt = 3						X	X	X	X	X
2. Drawing number- size = 5/32" wt = 3						X	X	X	X	X
3. Accuracy, Consistency, and Adequacy of Dimensions.						X	X	X	X	X
4. North Arrow Direction						X	X	X	X	X
5. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
6. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
7. Match Lines -size = 1/4" wt = 6						X	X	X	X	X
8. Spelling						X	X	X	X	X
9. Grammar						X	X	X	X	X
10. Room Numbers Consistent for Set						X	X	X	X	X
11. Meets Design Criteria						X	X	X	X	X
12. Correct Symbols from Legend						X	X	X	X	X
13. Index Sheets - Titles and Numbers						X	X	X	X	X
14. Scale and Graphics Scale						X	X	X	X	X
15. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CADD ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
16. Contract Number						X	X	X	X	X
17. Consultant Identification						X	X	X	X	X
18. Match Line Location Coordinates						X	X	X	X	X
19. Interface Requirements						X	X	X	X	X
20. Date						X	X	X	X	X
21. Signatures or Initials						X	X	X	X	X
22. Leveling Schemes							X	X	X	X
23. Plotability							X	X	X	X
24. Reference files							X	X	X	X
25. Interface with Other Disciplines							X	X	X	X
26. Format							X	X	X	X
27. Referencing Completed								X	X	X
<b>TEXT</b>										
1. Notes & Descriptions-text height-1/8"						X	X	X	X	X
2. Detail & Section bubbles-diameter 3/4"- 5/8"						X	X	X	X	X
3. Line Weight consistency & accuracy						X	X	X	X	X
4. Text line style-line code-0						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CADD ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
5. Text font ; font -1						X	X	X	X	X
<b>TITLE BLOCK INFORMATION</b>						X	X	X	X	X
1. Plan Drawing Scale- size = 5/32" wt = 1						X	X	X	X	X
2. Scale Call-out- size = 3/16" wt = 3						X	X	X	X	X
3. Sub-Titles- size = 7/32" wt = 3						X	X	X	X	X
4. Main Title and Heading- size = 1/4" wt = 4						X	X	X	X	X





# DESIGN CHECKLIST

## ENVIRONMENTAL ITEMS





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 1

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ENVIRONMENTAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>PHASE I</b>										
1. Environmental Assessment. (Library Search)								X	X	X
<b>PHASE II</b>										
1. Environmental Assessment for potential soil/water contamination.								X	X	X
<b>PHASE III</b>										
1. Environmental Assessment - Remedial Action Plan									X	X



**DESIGN CHECKLIST**

**RIGHT-OF-WAY ITEMS**

**RIGHT-OF-WAY  
ITEMS**



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

RIGHT-OF-WAY ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Interface with Other Disciplines						X	X	X	X	X
13. Meets Design Criteria						X	X	X	X	X
14. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
15. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

RIGHT-OF-WAY ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
	16. Proper Orientation of Plans, Sections, and Elevations							X	X	X
17. Room Numbers Consistent for Set						X	X	X	X	X
18. Scale and Graphics Scale						X	X	X	X	X
19. Spelling						X	X	X	X	X
20. Title Block Format						X	X	X	X	X
21. Coordination with Other Contracts							X	X	X	X
22. Criteria Conformance Checklist							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





## DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

RIGHT-OF-WAY ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>RIGHT-OF-WAY ITEMS</b>										
1. Area Shading or Cross-Hatching of Impacted Parcels						X	X	X	X	X
2. Note: For Information Only (Text)						X	X	X	X	X
3. Grid Tics (At Least Two Per Sheet Annotated)						X	X	X	X	X
4. Assigned Number of Impacted Parcels						X	X	X	X	X
5. Real Estate Data Base						X	X	X	X	X
6. Property Identification Maps					For Preliminary Eng; used to identify properties impacted and to order title reports	X	X	X	X	X
7. Aerial Topography Drawings					Sub-Consultant Product	X	X	X	X	X
8. Property Ownership Table						X	X	X	X	X
9. Tract and Parcel Names and/or Numbers (Including Recording Information and Individual Lot or Parcel Numbers)						X	X	X	X	X
10. Street Names						X	X	X	X	X
11. Street Dimensions							X	X	X	X
12. Existing Conditions (Topographic) Drawings					Sub-Consultant Product		X	X	X	X
13. Title Report of Impacted Parcels							X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

RIGHT-OF-WAY ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
14. Right-of-Way Maps					Base maps completed with ROW acquisition areas plotted		X	X	X	X
15. Survey Control Monumentation Drawings					Sub-Consultant Product		X	X	X	X
16. Right-of-Way Impact on Parcels Annotated							X	X	X	X
17. Right-of-Way Annotated							X	X	X	X
18. Benchmarks							X	X	X	X
19. Lot Closure of Impacted Parcels							X	X	X	X
20. Street Centerlines Annotated							X	X	X	X
21. Parcel Boundaries Annotated							X	X	X	X
22. Survey Control Referenced (Monuments and Centerline Intersections)								X	X	X
23. Right-of-Way Maps					Basic acquisition areas quantified; survey control shown; most title exceptions shown			X	X	X
24. Right-of-Way Maps					Additional ROW needs shown & quantified; Additional title analysis completed				X	X



**DESIGN CHECKLIST**

**GEOTECHNICAL ITEMS**



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

GEOTECHNICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

GEOTECHNICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
	15. Proper Orientation of Plans, Sections, and Elevations							X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Criteria Conformance Checklist							X	X	X	X
21. Interface with Other Disciplines							X	X	X	X
22. Interface Requirements							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

GEOTECHNICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>GEOTECHNICAL ITEMS</b>										
1. Compaction Requirements Noted								X	X	X
2. Geotechnical Plans and Profile								X	X	X
3. Soil and Rock Types Identified								X	X	X
4. Geotechnical Report								X	X	X
5. Boring Log Data (Soil Properties)								X	X	X
6. Geotechnical Design Summary Report									X	X



# DESIGN CHECKLIST

## TRACKWORK ITEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

TRACKWORK ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
13. Meets Design Criteria						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

TRACKWORK ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

TRACKWORK ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>TRACKWORK ITEMS</b>										
1. Proper Units and Decimals on Stationing							X	X	X	X
2. Concrete Classes and Mix Design Noted							X	X	X	X
3. Track Accessories Detailed								X	X	X
4. Testing Requirements and Acceptance Values Noted								X	X	X
5. Survey Information Sufficient to Lay Out Work Required								X	X	X
6. Stirrups and Reinforcing Clear								X	X	X
7. Existing Structures and Conditions								X	X	X
8. Construction or Lay Down Staging Areas Defined or Delineated								X	X	X
9. Rail Lengths Identified								X	X	X
10. Welding Inspection and Testing Identified								X	X	X
11. Rail Testing Identified								X	X	X
12. Fastener Testing Identified								X	X	X
13. Isolation Pads Included								X	X	X
14. Ties Specified								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

TRACKWORK ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Cross References between Procurement Contracts									X	X
16. Alignment Calculations Verified									X	X



# DESIGN CHECKLIST

## CIVIL ITEMS





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CIVIL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CIVIL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CIVIL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>CIVIL ITEMS</b>										
1. Right of Way Plans (for Information)						X	X	X	X	X
2. Proper Font for Lettering						X	X	X	X	X
3. Scales on All Sheets						X	X	X	X	X
4. Alignment of Route Finalized						X	X	X	X	X
5. Proper Line Weight						X	X	X	X	X
6. Vicinity Map with Key to Other Sheets						X	X	X	X	X
7. Column Lines Coordinated with Architectural						X	X	X	X	X
8. Location Map with North Arrow						X	X	X	X	X
9. Coordination with City Services and Utility Companies						X	X	X	X	X
10. USGS Coordinates Referenced							X	X	X	X
11. Concrete Track Ties and Base Detailed							X	X	X	X
12. Proper Units and Decimals on Stationing							X	X	X	X
13. Bottom and Top Elevations of Drilling Pins							X	X	X	X
14. Survey Information Sufficient to Lay Out Work Required							X	X	X	X
15. Concrete Classes and Mix Designs Clear							X	X	X	X
16. Testing Requirements and Acceptance Values								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CIVIL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
17. Worksite Traffic Control Plan Provided by LADOT								X	X	X
18. Track Accessories Detailed								X	X	X
19. Stirrups and Reinforcing Clear								X	X	X
20. Route Stationing on Each Sheet								X	X	X
21. Final Check for Basis of Bearings and Elevations								X	X	X
22. City Designed Traffic Signals.								X	X	X
23. Completed Site Restoration Plans								X	X	X
24. Index of Sheets Pertinent to City Facilities - Signed by City								X	X	X
25. Demolition Plans, Coordinated with ROW Acquisitions								X	X	X
26. Construction or Lay Down Staging Areas Delineated								X	X	X
27. Existing Conditions, Final								X	X	X





**DESIGN CHECKLIST**

**UTILITY ITEMS**

**UTILITY ITEMS**



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

UTILITY ITEMS	Checked		Verified		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

UTILITY ITEMS	Checked		Verified		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

UTILITY ITEMS	Checked		Verified		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>UTILITY ITEMS</b>										
1. Utility Rearrangement Drawings						X	X	X	X	X
2. Electrical Rearrangement Drawings						X	X	X	X	X
3. Telephone Rearrangement Drawings						X	X	X	X	X
4. Water Rearrangement Drawings						X	X	X	X	X
5. Gas Rearrangement Drawings						X	X	X	X	X
6. Telegraph Rearrangement Drawings						X	X	X	X	X
7. Traffic Signal Temporary/Restoration Drawings						X	X	X	X	X
8. Sanitary Sewer Rearrangement						X	X	X	X	X
9. Sanitary Sewer Profile Drawings						X	X	X	X	X
10. Coordination with City Services and Utility Companies						X	X	X	X	X
11. Electrical Profile Drawings							X	X	X	X
12. Telephone Profile Drawings							X	X	X	X
13. Water Profile Drawings							X	X	X	X
14. Gas Profile Drawings							X	X	X	X
15. Telegraph Profile Drawings							X	X	X	X
16. Storm Drain Profile Drawings							X	X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

UTILITY ITEMS	Checked		Verified		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
17. Electrical Manholes Located							X	X	X	X
18. Telephone/Electrical Facilities, General Layout							X	X	X	X
19. Water Supply System, General Layout							X	X	X	X
20. Gas Supply System, General Layout							X	X	X	X
21. Storm Drain Plan Drawings							X	X	X	X
22. Telephone Detail Drawings								X	X	X
23. Water Detail Drawings								X	X	X
24. DWP Standards and Detail Drawings								X	X	X
25. City Designed Street Lighting Plans or Project Drawings								X	X	X
26. Utilities Standards, Abbreviations and Symbols								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
	15. Proper Orientation of Plans, Sections, and Elevations							X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>TRAIN CONTROL SYSTEM</b>										
1. Size and Location of Train Control Room						X	X	X	X	X
2. Battery Room Conduit Routing							X	X	X	X
3. Comments from Previous Submittal, Action Complete							X	X	X	X
4. Battery Locations Identified							X	X	X	X
5. Conduit Routing and Disconnect Location to Train Control Room							X	X	X	X
6. Systemwide Pull Boxes Identified & Located							X	X	X	X
7. Layout of Train Control Room							X	X	X	X
8. Systemwide Duct Banks Labeled							X	X	X	X
9. Conduit and/or Pull Boxes for Switch Machine Installations								X	X	X
10. Conduit or Duct Routing Within Train Control Room								X	X	X
11. All Problem Areas Resolved									X	X
12. Access Openings Identified										
a. Pull Boxes Located							X	X	X	X
b. Interlocking Indication Signals								X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
c. Wayside Pushbuttons								X	X	X
13. Testing Requirements Specified								X	X	X



# DESIGN CHECKLIST

## STRUCTURAL ITEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

STRUCTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

STRUCTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

STRUCTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>STRUCTURAL ITEMS</b>										
1. General Plans & Cross Sections						X	X	X	X	X
2. Detailed Plans & Cross Sections							X	X	X	X
3. Protective Barriers Around Fire Hydrants							X	X	X	X
4. Welder Qualifications Stated Per AWS (Specs)								X	X	X
5. Column Lines and Background Coordinated with Architectural								X	X	X
6. Alignment Data for AR, AL Tracks								X	X	X
7. Completed Plans & Cross Sections								X	X	X
8. Fastener Sizes, Specified with Connection Details								X	X	X
9. Ladder Safety Devices								X	X	X
10. Concrete Reinforcing Details According to ACI and CRSI Standards								X	X	X
11. Structural Welding Details Per AWS								X	X	X
12. Structural Steel Details Per AISC								X	X	X
13. Grates Over Sumps								X	X	X
14. HDPE Closures and Welding								X	X	X
15. Reinforcement Locations								X	X	X
16. Concrete Strength Shown								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

STRUCTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
17. Dowel Locations								X	X	X
18. Seismic Criteria								X	X	X
19. Local Code Requirements								X	X	X
20. Fire Code Items								X	X	X
21. Concrete Mix Design Specified								X	X	X
22. Concrete Testing Specified								X	X	X
23. Welding Testing Specified								X	X	X



DESIGN CHECKLIST

ARCHITECTURAL ITEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 8

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 8

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 8

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>ARCHITECTURAL ITEMS</b>										
1. Ramp Dimensions and Percentage Slope Shown							X	X	X	X
2. Coordination with Design Criteria							X	X	X	X
3. Driveway Apron and Handicapped Curb Cut Shown							X	X	X	X
4. Location of Station Identifying Pylon Shown							X	X	X	X
5. Layout and Property Lines in Accord with Preliminary Design Submittal							X	X	X	X
6. Hatches and Gratings 4 ft. from Street Curb								X	X	X
7. Emergency Exit Hatch Dimensioned Per Structural Standard								X	X	X
8. Streets and Site Improvements Labeled and Dimensioned								X	X	X
9. Blast Relief Shafts (BRS)								X	X	X
10. Emergency Exit Hatches								X	X	X
11. Exhaust Openings 40 ft. or More from Emergency Exit, Entrances, FAI etc.								X	X	X
12. Traction Power Substation Location Coordinated								X	X	X
13. Under Platform Exhaust (UPE)								X	X	X
14. Fresh Air Intake (FAI)								X	X	X



## DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 8Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>FLOOR PLAN</b>										
1. Floor Drains Shown in All Ancillary Rooms							X	X	X	X
2. Fire Hose Cabinets Shown							X	X	X	X
3. Access Hatches, Louvers, Dampers, Knock-out Panels Detailed							X	X	X	X
4. Columns at Stair Escalators, Mezzanine to Platform: Size and Clearance Checked							X	X	X	X
5. Layout Per General Plans and Standard and Directive Drawings							X	X	X	X
6. Mezzanine and Platform Per Standard and Directive Drawings							X	X	X	X
7. Change of Materials, Depressed Areas and Slopes Detailed							X	X	X	X
8. Access for Removal of Equipment from Mechanical Rooms for Repair							X	X	X	X
9. Dampers in Ancillary Room Walls Coordinated with Mechanical Drawings								X	X	X
10. 3-Hour Fire-Rated Removable Panel Between Incoming Electrical Service Room and TPSS								X	X	X
11. Room Names and Numbers Completely Filled In								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 5 of 8

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
12. Door Numbers Completely Filled In. Fire Ratings of Doors and Walls Shown in Schedules.								X	X	X
13. Column Sizes within Preferred Maximum Size								X	X	X
14. Equipment Bases Shown and Dimensioned								X	X	X
15. Penetrations Through Fire Rated Walls								X	X	X
16. Emergency Exit Stairs from Mezzanine: 3 ft. 8 in. Wide with Single Door								X	X	X
17. Ancillary Rooms Identified								X	X	X
18. Anti-Slide Devices on Edge Strips Adjacent to Entrance and Escalators								X	X	X
19. Sizes and Dimensions of Passage Rooms Noted								X	X	X
<b>LIGHTING AND REFLECTED CEILING PLANS</b>										
1. Platform Height Above Top of Rail Shown							X	X	X	X
2. Lighting Fixtures Shown							X	X	X	X
3. Mounting Details for Light Fixtures								X	X	X
4. Lighting Fixtures Mounted Over Stairs and Escalators								X	X	X
5. Emergency Lighting Detailed								X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 6 of 8

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
6. Furred Walls and Ceilings Only at Mezzanine Finished Areas								X	X	X
<b>STAIRS, ESCALATORS AND ELEVATORS: PLANS, SECTIONS, DETAILS</b>										
1. Elevators Shown at Platforms, Mezzanine and Stair Landings						X	X	X	X	X
2. Layout Dimensions, Horizontal and Vertical Clearances Detailed							X	X	X	X
3. Surface Elevator Housing: Canopy at Entrance							X	X	X	X
4. Handrail Heights at Mezzanine, Landing, Column, Stair, Escalator Shown								X	X	X
5. Number of Riser to Landing, Riser Heights Shown								X	X	X
6. Materials Identified								X	X	X
<b>DETAILS</b>										
1. Finish Ceiling Detail Allows Methane Gas to be Vented							X	X	X	X
2. Platform Edge Strip								X	X	X
3. Finish Ceiling Material Securely Fastened to Structure								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 7 of 8

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DOORS</b>										
1. Louvers in Fire-Rated Doors							X	X	X	X
2. Door Schedule (Types, Sizes, Special Equipment Alarm, Card Key, Gasket)								X	X	X
3. Hardware Schedule								X	X	X
<b>EQUIPMENT MOUNTING DETAILS</b>										
1. Fare Collection								X	X	X
2. Maps								X	X	X
3. Phone Booths								X	X	X
4. Ticket Vendors								X	X	X
5. Ash and Trash Receptacles								X	X	X
6. CCTV								X	X	X
7. Speakers								X	X	X
8. Signs								X	X	X
<b>ACOUSTICS</b>										
1. Accordance with System Design Criteria							X	X	X	X
<b>ACCESSIBILITY FOR THE PHYSICALLY CHALLENGED</b>										
1. Signage Accessible						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 8 of 8

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ARCHITECTURAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
2. Height for Knobs, Switches, Counters, Etc.						X	X	X	X	X
3. Audio and Braille Included						X	X	X	X	X
4. Toilet Room Layout						X	X	X	X	X
5. Ramps, Curb Cuts							X	X	X	X
6. Signage for Elevators, Escalators, Exits							X	X	X	X
7. Wheel Chair Access to Public Facilities							X	X	X	X
8. Door Openings Sized							X	X	X	X
9. Telephones								X	X	X
10. Safe Area of Refuge								X	X	X
<b>GRAPHICS AND SIGNAGE</b>										
1. Procured By and Installed By Noted								X	X	X
2. Lighting Detailed Where Applicable								X	X	X
3. Backing Details Shown for Mounting								X	X	X
4. Supports Shown								X	X	X
<b>LANDSCAPING</b>										
(TBD)						X	X	X	X	X
						X	X	X	X	X



# DESIGN CHECKLIST

## MECHANICAL ITEMS





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 7

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

MECHANICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 7

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

MECHANICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 7

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

MECHANICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED						
	Y	N	Y	N		DD	IP	PF	F	CR		
<b>MECHANICAL ITEMS</b>												
1. Outside Air Intakes						X	X	X	X	X		
2. Space Allocation for Equipment and Fixtures						X	X	X	X	X		
3. Vent Shaft Locations Configurations and Acoustic						X	X	X	X	X		
4. Sewer Line, Routing						X	X	X	X	X		
5. Fan Shaft Locations Configurations and Acoustics						X	X	X	X	X		
6. Dampers to Electrical Rooms							X	X	X	X		
7. Fire Protection Systems, General Arrangement							X	X	X	X		
8. Location of Sewage Ejector							X	X	X	X		
9. Location & Details of Sump Pumps							X	X	X	X		
10. Piping Arrangements Shown							X	X	X	X		
11. HVAC Code Search							X	X	X	X		
12. Comments from Preliminary Review Incorporated							X	X	X	X		
13. Insulation of Pipes							X	X	X	X		
14. Coordination with Other Disciplines							X	X	X	X		
15. Sprinkler System Coverage							X	X	X	X		
16. Compliance with Drafting Standards and Design Criteria							X	X	X	X		



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 7

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

MECHANICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
17. Thermostats for Fans in Elevator Machine Rooms							X	X	X	X
18. Space Heaters							X	X	X	X
19. Locations of Lift Stations (Drainage)							X	X	X	X
20. Spacing of Drains							X	X	X	X
21. General Routing of Pipes							X	X	X	X
22. General Routing of Ducts							X	X	X	X
23. Fire Alarms Shown							X	X	X	X
a. Smoke							X	X	X	X
b. Heat Detector System							X	X	X	X
c. Fixture Locations							X	X	X	X
24. Comments from Previous Review Incorporated							X	X	X	X
25. Sprinkler System Details								X	X	X
26. Critical Invert Elevation and Slopes Shown								X	X	X
27. Mechanical Room Layout Access Hatches and/or Doors								X	X	X
28. Locations of Diffuser - Grilles								X	X	X
29. Fire Hose Locations								X	X	X
30. Plumbing and Drainage Schedules of Equipment, Fixtures & Fittings								X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 5 of 7

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

MECHANICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
31. Pipe Thrust Blocks								X	X	X
32. Thermostat Locations								X	X	X
33. Firestat Locations in Ducts								X	X	X
34. Fire and Smoke Damper Schedules								X	X	X
35. Design Report and Calculations, Complete and Checked								X	X	X
36. Corrosion Controls Details								X	X	X
37. Spacing for Proper Maintenance and Parts Replacement								X	X	X
38. Ticket Vending Machine Stainless Steel Closure Panels								X	X	X
39. Battery Room Exhaust System								X	X	X
40. Install Insulating Flanges on All Metallic Pipes Immediately Inside Structures								X	X	X
41. Corrosion Control Test Boxes Detailed								X	X	X
42. Blockouts and Pipe Chases								X	X	X
43. Line Air Purging Valve Locations and Vacuum Breakers Shown								X	X	X
44. Access to the Equipment Clear from Details								X	X	X
45. Sewer Line, Cleanouts, Venting Noted								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 6 of 7

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

MECHANICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
46. Diffuser - Grille Sizes and Air CFM Noted on Schedules								X	X	X
47. Duct Sizes Noted								X	X	X
48. Schedules of Selected Equipment, Fixtures and Fittings								X	X	X
49. Pipe Supports and Anchors								X	X	X
50. Pipe Sizes Detailed								X	X	X
51. Calculations for Air Conditioning and Ventilation Equipment								X	X	X
52. Line Drain Valve Locations								X	X	X
53. Fire Cabinet Locations								X	X	X
54. Access Panels								X	X	X
55. Air Conditioning Control								X	X	X
a. Fire Protection							X	X	X	X
b. Air Flow schematic Diagram								X	X	X
56. Drawings, All Systems, Detailed and Complete									X	X
57. Specifications Cross Referenced									X	X
58. Coordination, Drawings - Specifications, Complete									X	X
59. A/C and Ventilation Systems Dimensioned									X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 7 of 7

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

MECHANICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>60. Referencing Completed</b>									X	X
a. Control Schematic									X	X
b. Operation Sequence									X	X
<b>61. List of Bid Items</b>									X	X



# DESIGN CHECKLIST

## ELECTRICAL ITEMS





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface Requirements							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>LIGHTING, POWER GROUNDING &amp; CONTROLS DWGS</b>										
<b>1. Lighting</b>						X	X	X	X	X
a. Interior Location and Circuit						X	X	X	X	X
b. Interior Schematic & Fixture Schedules							X	X	X	X
c. Exterior Location and Schematic						X	X	X	X	X
d. Exterior Schematic & Fixture Schedule							X	X	X	X
<b>2. One-Line Diagram</b>						X	X	X	X	X
a. Essential and Non-Essential Load Identified						X	X	X	X	X
b. Distribution Plan						X	X	X	X	X
c. Control and Transfer Features								X	X	X
d. Power Requirements for A-G & A Line and Subway Sections							X	X	X	X
e. Completeness									X	X
<b>3. Lighting Protection and Obstruction for Towers, Stacks</b>						X	X	X	X	X
<b>4. Grade and Aerial Line Section Duct Banks:</b>						X	X	X	X	X
<b>5. General Notes</b>						X	X	X	X	X
<b>6. Compliance with Drafting Standards, Legends, Symbols</b>						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
7. Outline Specifications						X	X	X	X	X
8. Exit Sign Locations, Verified ADA requirement						X	X	X	X	X
9. Subway Section Duct Banks						X	X	X	X	X
a. Location						X	X	X	X	X
b. Detailed								X	X	X
10. Switchgear and Panel Boards Spares and Spaces							X	X	X	X
11. Emergency Lighting Fixtures:							X	X	X	X
a. Location							X	X	X	X
b. Circuitry							X	X	X	X
12. Ground System:							X	X	X	X
a. Plan & Details of Rods, cable, Connectors								X	X	X
b. Grounding Plates and Buses for Electrical Rooms								X	X	X
c. Grounding for Train Control Room.							X	X	X	X
13. Grounding Provision for Receptacles and Lighting Fixtures							X	X	X	X
14. Elementary Wiring and Block Diagrams							X	X	X	X
a. HVAC							X	X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 5 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
b. Pump Station							X	X	X	X
c. Station Entrance Control								X	X	X
15. Panel Schedules							X	X	X	X
16. Conduit and Station Raceway Schedules							X	X	X	X
17. Motor Control Center, Switchboard Schedules Information							X	X	X	X
18. Receptacle Layout and Circuitry							X	X	X	X
19. Battery Disconnect Switches							X	X	X	X
20. Panels Between Fan Room and Shafts							X	X	X	X
21. Conduit Continuity, Drawing to Drawing							X	X	X	X
22. Standard Drawings Properly Referenced							X	X	X	X
23. Comments from Previous Review Incorporated							X	X	X	X
24. Control Block Diagrams Coordinated with Conduit Schedules							X	X	X	X
25. Incoming Telephone Service in Accordance with Utility							X	X	X	X
26. Pay Telephone Requirements/Locations							X	X	X	X
27. Cable Sizing, Short-Circuit, Voltage Drops, Load Flow Analysis:							X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 6 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
a. Calculations							X	X	X	X
b. Equipment Adequately Sized and Braced								X	X	X
28. Incoming Power Service in Accordance with Utility							X	X	X	X
29. Cathodic Protection System; Bonding							X	X	X	X
30. Conduit Run Shown Clearly on Cable Schedule							X	X	X	X
31. Conduit Size Verified on the Raceway Schedule							X	X	X	X
32. Conduit Bends Shown in Accordance with NFPA-70, or as Specified on Contract Drawing/Specification							X	X	X	X
33. Standard Conduit Bends Shown in Accordance with NEC Table 346-10, or as Specified on Contract Drawing/Specification							X	X	X	X
34. Exposed Portion of Conduits Shown Galvanized Rigid Steel (GRS) and Embedded Portion of Conduits shown PVC, unless otherwise specified by Contract Drawing/Specification							X	X	X	X
35. Grounding Size Shown on the Drawing Match with the Grounding Riser Diagram							X	X	X	X
36. For Location and Installation of Public Address (PA) Speakers, Architectural and Electrical Drawing Coordinated.							X	X	X	X



## DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 7 of 9Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
37. Pull box sized in accordance with NEC Article 370-28 or as Indicated on Drawings/Specification							X	X	X	X
38. Pull box Mounting Details Checked							X	X	X	X
39. Fixture Mounting Details provided on the drawing to avoid Obstruction with HVAC duct and other Electrical Installation								X	X	X
40. UPS System Adequately Sized and Proper Clearance Maintained for Air Circulation								X	X	X
41. Cathodic Protection System; Anodes & Circuit								X	X	X
42. Conduits Clear of Reinforcing Steel, Ect.								X	X	X
43. Conduits Clearance, Size Checked and Spares Included								X	X	X
44. Escalator Interface Details								X	X	X
45. Interface Between Disciplines, Compliance								X	X	X
46. Referencing Completed								X	X	X
47. Lights in Stairwells								X	X	X
48. Design Report and Calculations Complete and Checked								X	X	X
49. List of Bid Items								X	X	X
50. Specifications Completed (Technical)								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 8 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
51. Feeder Sizes with Respect to Load and Voltage Drop								X	X	X
52. Transformer Sizes and Spare Capacity								X	X	X
53. Elevator Interface Details								X	X	X
54. Electrical Room Size (Dimensions)								X	X	X
55. Clearances (Working Space, Overhead, Drawout)								X	X	X
56. Removal Access for Electrical Equipment:								X	X	X
a. Primary Swtichgear and Transformer								X	X	X
b. Secondary Switchboard and MCC's								X	X	X
c. Emergency System Equipment								X	X	X
57. Entrance and Area Lightings, Lighted Graphics								X	X	X
58. Lighting Calculation (Title 24)								X	X	X
59. Remote Controls of Exterior, Public Area Lighting								X	X	X
60. All Checking Completed; Drawings Signed and Sealed									X	X
61. Drawings, All Systems Detailed and Completed									X	X
62. Coordination Between Drawings and Specs, Complete									X	X
63. Relay Setting and Coordination Verified									X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 9 of 9

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

ELECTRICAL ITEMS	CH'D?		OK?		NOTES	REQUIRED					
	Y	N	Y	N		DD	IP	PF	F	CR	
64. Proper Grounding System Provided										X	X



**DESIGN CHECKLIST**

**ELEVATORS & ESCALATORS**



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELEVATORS AND ESCALATORS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELEVATORS AND ESCALATORS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

ELEVATORS AND ESCALATORS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>ELEVATORS AND ESCALATORS ITEMS</b>										
1. Elevator Platform Plan						X	X	X	X	X
2. Escalator Configuration						X	X	X	X	X
3. Elevator Tabulation						X	X	X	X	X
4. Elevator Electrical Interface							X	X	X	X
5. Escalator Tabulation							X	X	X	X
6. Escalator Electrical Interface							X	X	X	X
7. Elevator Hoistway Doors								X	X	X
8. Escalator Cladding								X	X	X



# DESIGN CHECKLIST

## COMMUNICATION INSTALLATION AND GAS MONITORING/SEISMIC DETECTION PROCUREMENT



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 6

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

COMMUNICATIONS INSTALLATION AND GAS MONITORING/SEISMIC DETECTION PROCUREMENT	CH'D?		OK?		NOTES	REQUIRED						
	Y	N	Y	N		DD	IP	PF	F	CR		
<b>DRAWINGS - GENERAL ITEMS</b>												
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X		
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X		
3. Compliance with Applicable Codes and Standards						X	X	X	X	X		
4. Consultant Identification						X	X	X	X	X		
5. Contract Number						X	X	X	X	X		
6. Correct Symbols from Legend						X	X	X	X	X		
7. Cross Reference and Layout Index						X	X	X	X	X		
8. Date						X	X	X	X	X		
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X		
10. Grammar						X	X	X	X	X		
11. Index Sheets - Titles and Numbers						X	X	X	X	X		
12. Meets Design Criteria						X	X	X	X	X		
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X		
14. North Arrow Direction						X	X	X	X	X		



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 6

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

COMMUNICATIONS INSTALLATION AND GAS MONITORING/SEISMIC DETECTION PROCUREMENT	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
	15. Proper Orientation of Plans, Sections, and Elevations							X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 6

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

COMMUNICATIONS INSTALLATION AND GAS MONITORING/SEISMIC DETECTION PROCUREMENT	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>GENERAL SYSTEM WIDE COMMUNICATIONS</b>										
1. Gas Monitoring System Procurement and Installation						X	X	X	X	X
a. Wiring								X	X	X
b. Location of Detectors								X	X	X
2. Seismic Detection (at selected stations) Procurement and Installation						X	X	X	X	X
a. Wiring								X	X	X
b. Location of Seismic Switches								X	X	X
3. Tunnel and Line Section Construction						X	X	X	X	X
a. Cable Routing							X	X	X	X
b. Blockouts							X	X	X	X
c. Cross Passage Communications Interface Cabinet							X	X	X	X
4. Station Construction						X	X	X	X	X
a. Cable trays and embedded conduits							X	X	X	X
b. Uninterruptable Power Supply Distribution							X	X	X	X
c. Communication Interface Cabinets							X	X	X	X
d. Blockouts							X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 6

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

COMMUNICATIONS INSTALLATION AND GAS MONITORING/SEISMIC DETECTION PROCUREMENT	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>5. Integration with Existing Operating Segment</b>						X	X	X	X	X
<b>a. Main Distribution Frames</b>							X	X	X	X
<b>b. Uninterruptable Power Supply Distribution</b>							X	X	X	X
<b>6. System Installation Block Diagrams</b>							X	X	X	X
<b>7. Raceway/Trench Duct/Cable Trays/Conduits Locations</b>							X	X	X	X
<b>RADIO SYSTEM</b>						X	X	X	X	X
<b>1. Seismic Bracing</b>							X	X	X	X
<b>2. Uninterruptable Power Supply Distribution</b>								X	X	X
<b>3. Main Distribution Frame Cross Connections</b>								X	X	X
<b>PUBLIC ADDRESS SYSTEM</b>						X	X	X	X	X
<b>1. Seismic Bracing</b>							X	X	X	X
<b>2. Uninterruptable Power Supply Distribution</b>								X	X	X
<b>3. Equipment Installation</b>								X	X	X
<b>4. Speaker Cabling</b>								X	X	X
<b>CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM</b>						X	X	X	X	X
<b>1. Seismic Bracing</b>							X	X	X	X
<b>2. Uninterruptable Power Supply Distribution</b>								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 5 of 6

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

COMMUNICATIONS INSTALLATION AND GAS MONITORING/SEISMIC DETECTION PROCUREMENT	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
3. Equipment Installation								X	X	X
4. Camera Cabling								X	X	X
<b>FIBER OPTIC &amp; CABLE TRANSMISSION (FO&amp;CT) SYSTEM</b>						X	X	X	X	X
1. Seismic Bracing							X	X	X	X
2. Main Distribution Frame Cross Connections								X	X	X
3. Equipment Installation								X	X	X
<b>TRANSIT AUTOMATIC CONTROLS &amp; SCADA (TRACS) SYSTEM</b>						X	X	X	X	X
1. Seismic Bracing							X	X	X	X
2. Main Distribution Frame Cross Connections								X	X	X
3. Uninterruptable Power Supply Distribution								X	X	X
<b>FIRE AND EMERGENCY MANAGEMENT (F&amp;EM) SYSTEM</b>						X	X	X	X	X
1. Seismic Bracing							X	X	X	X
2. Equipment Installation								X	X	X
3. Field Device Cabling								X	X	X
4. Uninterruptable Power Supply Distribution								X	X	X
<b>AUTOMATIC TRAIN CONTROL (ATC) SYSTEM</b>						X	X	X	X	X
1. Out of Plant Cabling							X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 6 of 6

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

COMMUNICATIONS INSTALLATION AND GAS MONITORING/SEISMIC DETECTION PROCUREMENT	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
	<b>2. Main Distribution Frame Cross Connections</b>									X
<b>TRACTION POWER SYSTEM</b>						X	X	X	X	X
<b>1. Transfer Trip Cabling</b>								X	X	X
<b>2. Main Distribution Frames</b>								X	X	X
<b>VARIABLE MESSAGE SIGN (VMS) SYSTEM</b>						X	X	X	X	X
<b>1. Seismic Bracing</b>							X	X	X	X
<b>2. Uninterruptable Power Supply Distribution</b>								X	X	X
<b>3. Equipment Installation</b>								X	X	X
<b>4. Sign Cabling</b>								X	X	X
<b>ESCALATORS AND ELEVATORS SYSTEM</b>						X	X	X	X	X
<b>1. Communications Interface Cabling</b>								X	X	X
<b>2. Main Distribution Frame Cross Connections</b>								X	X	X
<b>TELEPHONE SYSTEM</b>						X	X	X	X	X
<b>1. Seismic Bracing</b>							X	X	X	X
<b>2. Device Cabling</b>								X	X	X
<b>FARE COLLECTION SYSTEM</b>						X	X	X	X	X
<b>1. Communications Interface Cabling</b>								X	X	X
<b>2. Main Distribution Frames</b>								X	X	X





# DESIGN CHECKLIST

## CORROSION CONTROL ITEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CORROSION CONTROL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CORROSION CONTROL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CORROSION CONTROL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>CORROSION CONTROL ITEMS</b>										
<b>1. Piping</b>										
a. Coatings								X	X	X
b. Structure Penetrations								X	X	X
c. Isolation								X	X	X
d. Cathodic Protection								X	X	X
<b>2. Elevators</b>										
a. Pit Configuration								X	X	X
b. Equipment Room								X	X	X
<b>3. Collector Grid</b>										
a. Rebar Configuration-Tunnels								X	X	X
b. Rebar Configuration-Specials (i.e. Stations, Crossovers, Pocket, etc.)								X	X	X
<b>4. Trackwork</b>										
a. Direct Fixation Fasteners (all types)								X	X	X
b. Tie & Ballast								X	X	X
c. Special Track Configuration								X	X	X
d. Signals & Traction Power								X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date \_\_\_ / \_\_\_ / \_\_\_

CORROSION CONTROL ITEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>5. Bridges/Aerials</b>										
<b>a. Rebar Configuration</b>								X	X	X
<b>b. Expansion Joints</b>								X	X	X
<b>c. Pre/Post Tension Cables</b>								X	X	X
<b>d. Bents &amp; Columns</b>								X	X	X
<b>6. Cross Passages</b>										
<b>a. Testing Facilities</b>								X	X	X



# DESIGN CHECKLIST

SYSTEMS COMMUNICATION

CLOSED CIRCUIT TELEVISION



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEM COMMUNICATION CLOSED CIRCUIT TELEVISION	CH'D?		OK?		NOTES	REQUIRED						
	Y	N	Y	N		DD	IP	PF	F	CR		
<b>DRAWINGS - GENERAL ITEMS</b>												
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X		
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X		
3. Compliance with Applicable Codes and Standards						X	X	X	X	X		
4. Consultant Identification						X	X	X	X	X		
5. Contract Number						X	X	X	X	X		
6. Correct Symbols from Legend						X	X	X	X	X		
7. Cross Reference and Layout Index						X	X	X	X	X		
8. Date						X	X	X	X	X		
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X		
10. Grammar						X	X	X	X	X		
11. Index Sheets - Titles and Numbers						X	X	X	X	X		
12. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X		
13. Meets Design Criteria						X	X	X	X	X		
14. North Arrow Direction						X	X	X	X	X		



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

SYSTEM COMMUNICATION CLOSED CIRCUIT TELEVISION	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEM COMMUNICATION CLOSED CIRCUIT TELEVISION	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>GENERAL SYSTEM WIDE FACILITIES</b>										
1. Location of Cameras						X	X	X	X	X
2. Video to TCC Room Conduit							X	X	X	X
3. Comments from Previous Submittal, Action Complete							X	X	X	X
4. Mounting Details								X	X	X



**DESIGN CHECKLIST**

**SYSTEMS COMMUNICATION**

**TELEPHONE ITEMS**



## DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 3Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - TELEPHONE	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - TELEPHONE	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - TELEPHONE	CH'D?		OK?		NOTES	REQUIRED						
	Y	N	Y	N		DD	IP	PF	F	CR		
<b>SYSTEMS COMMUNICATION - TELEPHONE</b>												
1. Location of Train Control and Communications Rooms						X	X	X	X	X		
2. Conduit Routing to Train Control Room							X	X	X	X		
3. Miscellaneous Details								X	X	X		
4. Location of Fire Telephone Jacks								X	X	X		
5. Location of Other Telephone Jacks								X	X	X		
6. ADA Requirements Reflected in Set								X	X	X		
7. All Problem Areas Resolved									X	X		
8. Comments from Previous Submittal, Action Complete												X



**DESIGN CHECKLIST**

**SYSTEMS COMMUNICATION**

**RADIO ITEMS**



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - RADIO	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - RADIO	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - RADIO	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>SYSTEMS COMMUNICATIONS - RADIO</b>										
1. Comments from Previous Submittal, Action Complete							X	X	X	X
2. Provisions for Routing							X	X	X	X
3. General Provisions								X	X	X
4. Arrangement and Insert Wall Sleeve Locations								X	X	X
5. Radio Interference with Lighting, Solid State Trip Breakers								X	X	X
6. Cable Runs Shown								X	X	X
7. Toner Plan, Details								X	X	X
8. Channel Frequencies Designated								X	X	X
9. All Problem Areas Resolved									X	X



# DESIGN CHECKLIST

SYSTEMS COMMUNICATION

PUBLIC ADDRESS ITEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - PUBLIC ADDRESS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - PUBLIC ADDRESS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Resolution of Design Review Comments								X	X	X
28. Third Party Requirements Included								X	X	X
29. Work Space and Access Space								X	X	X
30. Referencing Completed									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 3

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - PUBLIC ADDRESS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>SYSTEMS COMMUNICATIONS - PUBLIC ADDRESS</b>										
1. Speaker Conduit and Loop							X	X	X	X
2. Comments from Previous Submittal, Action Complete							X	X	X	X
3. All Problem Areas Resolved								X	X	X
4. Installation Details								X	X	X
5. Location of Speaker Boxes								X	X	X
6. Tests for Acoustics Specified								X	X	X
7. Amplifier Locations Shown								X	X	X
8. Coordination with Elevator								X	X	X
9. Central Control Panel Locations								X	X	X
10. Plans and Details of Equipment								X	X	X



**DESIGN CHECKLIST**

**SYSTEMS COMMUNICATION**

**FIBER OPTIC ITEMS**



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

FIBER OPTIC AND CABLE TRANSMISSION SYSTEM	CH'D?		OK?		NOTES	REQUIRED					
	Y	N	Y	N		DD	IP	PF	F	CR	
<b>DRAWINGS - GENERAL ITEMS</b>											
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X	
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X	
3. Compliance with Applicable Codes and Standards						X	X	X	X	X	
4. Consultant Identification						X	X	X	X	X	
5. Contract Number						X	X	X	X	X	
6. Correct Symbols from Legend						X	X	X	X	X	
7. Cross Reference and Layout Index						X	X	X	X	X	
8. Date						X	X	X	X	X	
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X	
10. Grammar						X	X	X	X	X	
11. Index Sheets - Titles and Numbers						X	X	X	X	X	
12. Meets Design Criteria						X	X	X	X	X	
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X	
14. North Arrow Direction						X	X	X	X	X	



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

FIBER OPTIC AND CABLE TRANSMISSION SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed								X	X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

FIBER OPTIC AND CABLE TRANSMISSION SYSTEM	CH'D?		OK?		NOTES	REQUIRED						
	Y	N	Y	N		DD	IP	PF	F	CR		
<b>FIBER OPTIC AND CABLE TRANSMISSION SYSTEM</b>												
1. System Block Diagram -CT						X	X	X	X	X		
2. Rack Elevations/Cabinets for CCF							X	X	X	X		
3. Power Requirements Remote Sites							X	X	X	X		
4. Rack Elevations/Cabinets for Sites							X	X	X	X		
5. System Block Diagram - Telephone							X	X	X	X		
6. Channel Assignments - DS-2								X	X	X		
7. Channel Assignments - DS-1								X	X	X		
8. Channel Assignments - DS-0								X	X	X		
9. Power Requirements CCF								X	X	X		
10. Channel Assignments - DS-3								X	X	X		
11. Main Distribution Frame Assignments								X	X	X		
12. Channel Assignments - M560								X	X	X		
13. Equipment Cabling - Remote Sites								X	X	X		
14. Equipment Cabling - CCF								X	X	X		
15. Fiber Optic Panel Stenciling								X	X	X		
16. Main Distribution Frame Block Stenciling								X	X	X		
17. Fiber Optic Panel Assignments								X	X	X		



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

FIBER OPTIC AND CABLE TRANSMISSION SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
	18. System Interface									X



# DESIGN CHECKLIST

## SYSTEMS COMMUNICATION CABLE TRANSMISSIONS SYSTEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CABLE TRANSMISSION SYSTEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
	<b>DRAWINGS - GENERAL ITEMS</b>									
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

CABLE TRANSMISSION SYSTEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CABLE TRANSMISSION SYSTEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>CABLE TRANSMISSION SYSTEMS</b>										
1. System Block Diagram -CT						X	X	X	X	X
2. Power Requirements Remote Sites							X	X	X	X
3. Rack Elevations/Cabinets for Sites							X	X	X	X
4. Rack Elevations/Cabinets for CCF							X	X	X	X
5. System Block Diagram - Telephone								X	X	X
6. Power Requirements CCF								X	X	X
7. System Ductbank Layout								X	X	X
8. Emergency Trip Switch Zones								X	X	X
9. Fiber Cable Distribution								X	X	X
10. Copper Cable Distribution								X	X	X
11. Riser Diagrams								X	X	X
12. Fiber Optic Panel Assignments								X	X	X
13. Channel Assignments - DS-0								X	X	X
14. Channel Assignments - DS-1								X	X	X
15. Channel Assignments - DS-2								X	X	X
16. Channel Assignments - DS-3								X	X	X
17. Fiber Optic Panel Stenciling								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

CABLE TRANSMISSION SYSTEMS	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
18. Channel Assignments - M560								X	X	X
19. Equipment Cabling - Remote Sites									X	X
20. Main Distribution Frame Assignments									X	X
21. Equipment Cabling - CCF									X	X
22. Main Distribution Frame Block Stenciling									X	X



# DESIGN CHECKLIST

## TRAIN CONTROL SYSTEM ITEMS





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>TRAIN CONTROL SYSTEM</b>										
1. Size and Location of Train Control Room						X	X	X	X	X
2. Battery Room Conduit Routing							X	X	X	X
3. Comments from Previous Submittal, Action Complete							X	X	X	X
4. Battery Locations Identified							X	X	X	X
5. Conduit Routing and Disconnect Location to Train Control Room							X	X	X	X
6. Systemwide Pull Boxes Identified & Located							X	X	X	X
7. Layout of Train Control Room							X	X	X	X
8. Systemwide Duct Banks Labeled							X	X	X	X
9. Conduit and/or Pull Boxes for Switch Machine Installations								X	X	X
10. Conduit or Duct Routing Within Train Control Room								X	X	X
11. All Problem Areas Resolved									X	X
12. Access Openings Identified										
a. Pull Boxes Located							X	X	X	X
b. Interlocking Indication Signals								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date / /

TRAIN CONTROL SYSTEM	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
c. Wayside Pushbuttons								X	X	X
13. Testing Requirements Specified								X	X	X





# DESIGN CHECKLIST

SYSTEMS COMMUNICATION

SCADA/TRACS ITEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

TRANSIT AUTOMATIC CONTROL AND SCADA (TRACS)	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

TRANSIT AUTOMATIC CONTROL AND SCADA (TRACS)	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures (Including P.E. Stamps)										X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

TRANSIT AUTOMATIC CONTROL AND SCADA (TRACS)	CH'D?		OK?		NOTES	REQUIRED						
	Y	N	Y	N		DD	IP	PF	F	CR		
<b>TRACS ITEMS</b>												
1. TRACS Applications Functions						X	X	X	X	X		
2. User Interface Functions						X	X	X	X	X		
3. Alarm Processing Requirements						X	X	X	X	X		
4. CCF Hardware Characteristics Requirements						X	X	X	X	X		
5. RTU Characteristics						X	X	X	X	X		
6. Software Requirements						X	X	X	X	X		
7. TRACS System Block Diagram						X	X	X	X	X		
8. TRACS System Database Requirements							X	X	X	X		
9. TRACS System Shipment and Installation							X	X	X	X		
10. TRACS Test Program							X	X	X	X		
11. Station Interfaces and Points Count								X	X	X		
12. Inter-Computer Systems Interfaces								X	X	X		
13. CRT Displays Requirements								X	X	X		
14. General Color Conventions								X	X	X		
15. Report Requirements								X	X	X		
16. System Availability								X	X	X		
17. System Performance								X	X	X		





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date \_\_\_ / \_\_\_ / \_\_\_

TRANSIT AUTOMATIC CONTROL AND SCADA (TRACS)	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
18. Segment 1 - Segment 2 Phaseover Considerations								X	X	X
19. TRACS System Maintenance								X	X	X
20. Documentation Requirements and CDRL List								X	X	X
21. TRACS Interfaces Diagram								X	X	X



# DESIGN CHECKLIST

SYSTEMS COMMUNICATION

TRACTION POWER ITEMS



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 1 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - TRACTION POWER	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>DRAWINGS - GENERAL ITEMS</b>										
1. Accuracy, Consistency, and Adequacy of Dimensions						X	X	X	X	X
2. Column, Reference Points and Match Lines Consistent						X	X	X	X	X
3. Compliance with Applicable Codes and Standards						X	X	X	X	X
4. Consultant Identification						X	X	X	X	X
5. Contract Number						X	X	X	X	X
6. Correct Symbols from Legend						X	X	X	X	X
7. Cross Reference and Layout Index						X	X	X	X	X
8. Date						X	X	X	X	X
9. Drawing Numbers, Sheet Numbers, Revision Numbers - Shown in Order						X	X	X	X	X
10. Grammar						X	X	X	X	X
11. Index Sheets - Titles and Numbers						X	X	X	X	X
12. Meets Design Criteria						X	X	X	X	X
13. Meets Drafting Criteria (Letter Sizes)						X	X	X	X	X
14. North Arrow Direction						X	X	X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 2 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date    /    /   

SYSTEMS COMMUNICATION - TRACTION POWER	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
15. Proper Orientation of Plans, Sections, and Elevations						X	X	X	X	X
16. Room Numbers Consistent for Set						X	X	X	X	X
17. Scale and Graphics Scale						X	X	X	X	X
18. Spelling						X	X	X	X	X
19. Title Block Format						X	X	X	X	X
20. Coordination with Other Contracts							X	X	X	X
21. Criteria Conformance Checklist							X	X	X	X
22. Interface with Other Disciplines							X	X	X	X
23. Match Line Location Coordinates							X	X	X	X
24. Standard Drawings Referenced							X	X	X	X
25. Discipline Drawings Referenced								X	X	X
26. Freedom from Interferences								X	X	X
27. Third Party Requirements Included								X	X	X
28. Work Space and Access Space								X	X	X
29. Referencing Completed									X	X
30. Resolution of Design Review Comments									X	X
31. Signatures ( Including P.E. Stamps)										X





# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 3 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - TRACTION POWER	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
<b>SYSTEMS COMMUNICATION TRACTION POWER ITEMS</b>										
1. Substation Location						X	X	X	X	X
2. Location of Maintenance Walkway						X	X	X	X	X
3. General Location and Arrangement of Contact Rail						X	X	X	X	X
4. Buried and Embedded Conduit Identified							X	X	X	X
5. Comments from Previous Submittal, Action Complete							X	X	X	X
6. OCS Pole Locations, Clearance							X	X	X	X
7. Contact Wire Elevation, Size, Tension							X	X	X	X
8. Gap Breaker Building Locations							X	X	X	X
9. Manholes/Pullboxes, Locations							X	X	X	X
10. Contact Rail Jumper Cable Conduits							X	X	X	X
11. Cross Bonding Provisions							X	X	X	X
12. Grounding Mat							X	X	X	X
13. Substation Building Details								X	X	X
14. Emergency Trip Station Conduit Sub-Ups								X	X	X
15. Gap Breaker Station Details								X	X	X
16. Substation to Track or Gap Breaker Station to Track Details								X	X	X



# DESIGN CHECKLIST

Reviewer: \_\_\_\_\_ Organization: \_\_\_\_\_ Discipline: \_\_\_\_\_ Sheet 4 of 4

Project: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Contract Title: \_\_\_\_\_ Submittal: \_\_\_\_\_ Date  / /

SYSTEMS COMMUNICATION - TRACTION POWER	CH'D?		OK?		NOTES	REQUIRED				
	Y	N	Y	N		DD	IP	PF	F	CR
17. Sleeves, Chases, Blockouts in Structures Where Needed								X	X	X
18. Transformer Testing and Maintenance Requirements								X	X	X
19. All Problem Areas Resolved									X	X

