RTD BUS INFRASTRUCTURE STANDARD DRAWINGS

Published 2016

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
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The content of this document reflects the current practices for building bus facilities used by the Regional Transportation District. This document was developed and assembled by the Engineering Division of the Capital Programs Department for the purpose of providing typical standard drawings for designing and constructing RTD bus facilities. This document shall be used in conjunction with the RTD Bus Infrastructure Design Guidelines and Criteria.

These typical drawings shall be used in the development of design, which shall comply with applicable law, RTD and Local Agency requirements and standards, and good industry practices. These standard drawings are typical scenarios applicable to normal designs of RTD bus facilities and are available on an "as is" basis. The standards drawings shall be adjusted for site specific requirements. All warranties and representations of any kind with regard to said documents are disclaimed, including the implied warranties of merchantability and fitness for a particular use. Under no circumstance will RTD, or its officers or employees be liable for any consequential, incidental, special or exemplary damages even if apprised of the likelihood of such damages occurring. The RTD does not warrant the documents against deficiencies of any kind.

The use of any of these documents for work which is under contract with RTD, does not relieve the designer or contractor from any obligations assumed by the contract with RTD, or from complete and proper fulfillment of the terms of the contract, nor does it entitle the designer or contractor to compensation for damages or loss which could be attributed to such use. The project designers shall seal and sign drawings according to applicable State Law.

Proprietary items or products referred to in these standards are items or products currently used by RTD. The use of equivalent items or products with similar desired characteristics can be proposed, and will be subject to the review and approval of the Engineering Division.

These standard drawings contained within this document can only be changed by the process initiated by the Senior Manager/Chief Engineer of the Engineering Division.

Jyotsna Vishwakarma 06/13/2016

Approved: Jyotsna Vishwakarma, P.E.
Senior Manager/Acting Chief Engineer

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
HOW TO USE THESE DRAWINGS

SHEET REFERENCE NUMBER:
SD-G103
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DESIGN PHASE				CONSTRUCTION PHASE		
SHEET NUMBER	SHEET NAME		DRAWING TITLE	REVISION NO.	SHEETS ADDED OR DELETED	AUTHORIZING DOCUMENT
1	GN	101	PROJECT COVER SHEET			
2	GN	102	SHEET INDEX, LEGEND AND ABBREVIATIONS			
3	GN	103	GENERAL DRAWING LIST (CDOT OR OTHER AGENCY)			
4	GN	104	PROJECT NOTES			
5	GN	105	PROJECT SCOPE / EXTENT			
6	GN	106	EFFECT ON OPERATIONS & DESIRED PHASING			
7	GN	107	DETOUR / TEMPORARY ACCESS PLAN			
8	GN	108	APPROXIMATE QUANTITIES & BID ALTERNATES			
9	V	101	ALTA SURVEY			
10	V	102	ROW PLANS			
11	V	103	HORIZONTAL AND VERTICAL CONTROL			
12	V	104	EXISTING CONDITIONS			
13	CR	101	OFF-SITE ROADWAY IMPROVEMENTS			
14	CR	102	TRAFFIC SIGNAL PLAN			
15	CR	103	FOUNDATION/STRUCTURAL			
16	CR	104	TRAFFIC SIGNAL CONTROLS			
17	CR	105	DETAILS			
18	CK	101	DEMOLITION PLAN			
19	CK	201	OVERALL SITE PLAN			
20	CK	202	PLAZAS, AND ACCESSIBLE AREAS			
21	CK	203	HORIZONTAL LAYOUT			
22	CK	204	PAVEMENT MARKINGS			
23	CK	205	SIGNAGE PLAN			
24	CK	206	SIGN MONUMENT			
25	CK	207	PAVING PLANS WITH CONDUITS			
26	CK	208	EXISTING DRAINAGE PLAN			
27	CK	209	PROPOSED DRAINAGE PLAN			
28	CK	210	OVERALLGRADIN PLANS			
29	CK	211	DETAILED GRADING PLANS			
30	CK	212	STORM DRAINS			
31	CK	213	PLAN & PROFILES			
32	CK	214	DETAILS			
33	CK	215	WATER QUALITY & DETENTION POND			
34	CK	216	LAYOUT			
35	CK	217	CALCULATIONS			
36	CK	218	DETAILS			
37	CK	219	WALL PLANS			
38	CK	220	LAYOUT			
39	CK	221	ELEVATIONS			
40	CK	222	DETAILS			
41	CK	223	FENCING			
42	CK	224	EROSION AND SEDIMENT CONTROL PLANS			
43	CK	225	STORMWATER MANAGEMENT PERMITS			
44	CK	226	DETAILS			
45	LS	101	LANDSCAPE			
46	LS	102	PLANTING PLANS			
47	LS	103	DETAILS			
48	LS	104	IRRIGATION			
49	LS	105	MOTOR BIKE AND BIKE PARKING			
50	LS	106	SHELTERS			
51	LS	107	BENCHES & TRASH CANS			
52	LS	108	TRASH CANS			

DESIGN PHASE				CONSTRUCTION PHASE		
SHEET NUMBER	SHEET NAME		DRAWING TITLE	REVISION NO.	SHEETS ADDED OR DELETED	AUTHORIZING DOCUMENT
53	U	101	OVERALL UTILITY PLANS			
54	U	102	METERING AND EMERGENCY SHUT-OFFS			
55	U	103	SANITARY SEWER			
56	U	104	WATER			
57	A	101	SHELTERS			
58	A	102	CANOPIES			
59	A	103	DRIVER RELIEF STATION			
60	MEP	104	MECHANICAL, ELECTRIC, PLUMBING			
61	S	105	STRUCTURAL			
62	E	101	LEGEND & SCHEDULES			
63	E	102	PHOTOMETRIC PLANS			
64	E	103	DETAILS			
65	E	104	ELECTRIC SITE PLAN			
66	E	105	TRANSFORMER LOCATIONS			
67	E	106	ONE-LINE DIAGRAM			
68	E	107	DIVISION OF RESPONSIBILITY BETWEEN UTILITY/CONTRACTOR/RTD			
69	J	101	SECURITY AND COMMUNICATION SYSTEMS			
70	J	102	CAMERA LOCATIONS AND CONDUITS			
71	J	103	CONTROL SYSTEMS			
71	**TOTAL NUMBER OF SHEETS**				**71 ±**	

A SET OF PROJECT DRAWINGS WILL TYPICALLY CONTAIN THE ELEMENTS LISTED BELOW. DEPENDING UPON THE SCOPE OF THE PROJECT, SOME OF THESE ELEMENTS MAY BE ELIMINATED. SMALLER PROJECTS MAY NOT NEED ALL THESE ELEMENTS, OR THE ELEMENTS CAN BE DEPICTED ON FEWER SHEETS. CONVERSELY, LARGE OR COMPLEX PROJECTS MAY REQUIRE SEVERAL SHEETS PER ELEMENT.

DESIGN PHASE

1. COVER SHEET SHALL INCLUDE THE SIGNATURES OF APPROPRIATE STAFF AND RTD MANAGEMENT, AS DEFINED IN CAPITAL PROGRAM'S OFFICIAL DRAWING CONFIGURATION MANAGEMENT AND CONTROL PROCEDURES.
2. AN ORIGINAL SET OF DRAWINGS SHALL BE SIGNED AND SEALED BY THE LICENSED/REGISTERED DESIGNER AS SET FORTH BY STATE LAW.
3. THE PROJECT MAY INVOLVE GETTING STAMPS OR SIGNATURES FROM A LOCAL JURISDICTION TO INDICATE ACCEPTANCE FROM BUILDING DEPARTMENT, PUBLIC WORKS, ENGINEERING, ETC.

CONSTRUCTION PHASE

1. THE OVERALL DRAWING SHEET INDEX SHALL BE REVISED EACH TIME THE DRAWINGS ARE REVISED DURING CONSTRUCTION, AND ISSUED WITH THE REVISION.
2. DOCUMENTATION SHALL BE MAINTAINED SHOWING APPROVAL BY THE DESIGN PROJECT MANAGER AND CONSTRUCTION PROJECT MANAGER TO EACH CHANGE TO THE ORIGINALLY ISSUED DRAWINGS.
3. ANY SHEETS THAT WERE MODIFIED OR ADDED SHALL BE INSERTED INTO THE PLAN SET WITH THE ORIGINAL SHEETS REMOVED AND REPLACED OR SUPERCEDED.
4. IF A SHEET HAS BEEN ELIMINATED FROM THE PLAN SET, THE NAME OF THE PLAN SHEET SHALL BE STRICKEN THROUGH IN THE SHEET INDEX AND THE PHRASE INTENTIONALLY OMITTED ADDED IN A BOLD FONT AND THE SHEET REMOVED WITHOUT RENUMBERING THE SUBSEQUENT SHEETS IN THE SET.
5. REVISIONS SHALL BE NOTED AND DATED CONSECUTIVELY IN THE REVISIONS BLOCK.
6. SHEET ADDITIONS SHALL HAVE A SUBSCRIPT ATTACHED TO THE SHEET NUMBER (IE. 5A) AND SHALL BE NOTED AND DATED IN THE REVISION BLOCK.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
SAMPLE OVERALL SHEET INDEX

SHEET REFERENCE NUMBER:
SD-G104
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1. PROJECT FUNDING

☐ FEDERAL ☐ STATE ☐ LOCAL

2. LIST OF LOCAL AUTHORITIES AND THEIR CONTACT INFORMATION.

3. ZONING REQUIREMENTS ANALYSIS:

A. SETBACKS REQUIRED
B. LOT OVERAGE ALLOWED
C. MAXIMUM HEIGHT OF STRUCTURES
D. SPECIAL REQUIREMENTS

4. CODE ANALYSIS

5. SITE STATISTICS

A. SITE AREA DISTURBED
B. SITE AREA PAVED

6. LIST TECHNICAL REPORTS & STUDIES FOR PROJECT

A. PLANNING STUDIES
B. PREVIOUS COMMITMENTS
C. ENVIRONMENTAL STUDIES AND MITIGATIONS REQUIRED
   i. TRAFFIC IMPACT STUDIES
   ii. HISTORIC INVESTIGATION
   iii. AIR QUALITY
   iv. NOISE
   v. VIBRATION
   vi. HAZARDOUS MATERIALS
   vii. TREE SURVEYS
   viii. WETLANDS
   ix. MIGRATORY BIRDS
   x. ENDANGERED SPECIES
   xi. OTHER
D. GEOTECH REPORT
E. PAVEMENT DESIGNS
F. DRAINAGE REPORT
G. STRUCTURE SELECTION REPORT (IF APPLICABLE)
H. HAZARD ANALYSIS NEEDED
   ☐ YES ☐ NO ☐ COMPLETED

7. INTERGOVERNMENTAL AGREEMENTS NEEDED

☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

8. UTILITY RELOCATION AGREEMENTS NEEDED

☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

9. DESIGN VARIANCES

☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

8. SOURCE OF INFORMATION SHOWN ON PROJECT DRAWINGS

☐ RECORD CAD FILES
☐ TOPOGRAPHIC \ AS-BUILT SURVEY
☐ GIS
☐ GOOGLE EARTH
☐ MrSID IMAGERY

9. SERVICE IMPACT:

☐ COMMUTER RAIL
☐ LIGHT RAIL
☐ BUS SERVICE
☐ PARKING
☐ NONE

10. ALTERNATE SERVICE PLAN COORDINATED

☐ YES
☐ TO BE DONE

11. PROPERTY IMPACT:

☐ NO ROW OR EASEMENT REQUIRED
☐ ROW OR EASEMENT REQUIRED
☐ TEMPORARY CONSTRUCTION EASEMENT REQUIRED

12. PROJECT DURATION IS EXPECTED TO BE: _____

13. WINDOWS FOR CONSTRUCTION ARE:

☐ WEEK DAYS ☐ NIGHT WORK ☐ WEEKENDS ☐ OTHER

14. STATUS OF OF EXTERNAL REVIEWS:

A. ZONING
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

B. SUBDIVISION
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

C. SITE PLAN REVIEW
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

D. ACCESS
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

E. FOR HISTORIC PROPERTIES, APPROVAL BY STATE HISTORIC PRESERVATION OFFICE AND LANDMARK COMMISSION
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

F. APPROVAL OF DRAINAGE PLANS
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

G. APPROVAL OF UTILITY PLANS
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

H. BUILDING PERMITS
   ☐ PENDING ☐ OBTAINED ☐ NOT NEEDED

15. LIST OF UTILITY PROVIDERS AND THEIR CONTACT INFORMATION.

16. MAINTENANCE SHALL BE BY:

☐ RTD
☐ OTHERS

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
PROJECT INFORMATION

SHEET REFERENCE NUMBER:
SD-G105
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I. GENERAL

1. THE OBJECTIVE OF THIS PROJECT IS TO _____ AS SHOWN OR DESCRIBED IN THESE DRAWINGS.
2. FOR PROJECTS LOCATED WITHIN PUBLIC RIGHT-OF-WAY, ALL CIVIL WORK NOT COVERED BY LOCAL AGENCY REQUIREMENTS AND SPECIFICATIONS SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE CDOT "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION", "M & S STANDARDS".
3. BUILDING DESIGNS SHALL COMPLY WITH LATEST VERSION OF THE INTERNATIONAL BUILDING CODE.
4. ALL PROJECTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
5. CONTRACTOR TO APPLY FOR, OBTAIN, AND PAY FOR ALL CONSTRUCTION PERMITS AND BONDS REQUIRED FOR THE PROJECT. ISSUING OF PERMITS SHALL BE INCIDENTAL TO WORK.
6. CONTRACTOR TO APPLY FOR, OBTAIN, AND PAY FOR STORM WATER MANAGEMENT PERMITS, IF REQUIRED FOR THE PROJECT. ISSUING OF PERMITS SHALL BE INCIDENTAL TO WORK.
7. IF THE CONTRACTOR THINKS THAT ANY ELEMENT OF THE DESIGN NEEDS ADJUSTMENT, THE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF RTD'S CONSTRUCTION PROJECT MANAGER.
8. CONTRACTOR WILL MINIMIZE THE IMPACT OF CONSTRUCTION TO ADJACENT LANDOWNERS AND BUSINESSES, AND TO THE PUBLIC.
9. CONTRACTOR SHALL PROPOSE QUALITY CONTROL PLAN FOR THE PROJECT. RTD WILL CONDUCT OWNER VERIFICATION TESTING.
10. CONTRACTOR SHALL HAVE A WRITTEN SAFETY PLAN.
11. CONTRACTOR (OR SUBCONTRACTORS) SHALL NOTIFY THE RTD'S CONSTRUCTION PROJECT MANAGER PROMPTLY IF UNKNOWN CONDITIONS ARE DISCOVERED.
12. CONTRACTOR SHALL NOTIFY RTD STAFF A MINIMUM OF 24 HOURS IN ADVANCE OF ITEMS REQUIRING THEIR INSPECTION AND/OR APPROVAL.
13. CONTRACTOR SHALL NOTIFY A MINIMUM OF 48 HOURS IN ADVANCE ALL RESPECTIVE MUNICIPALITIES/ENTITIES PRIOR TO INSTALLATION OF ITEMS REQUIRING THEIR INSPECTION AND/OR APPROVAL.
14. RTD SHALL SPECIFY WHAT DOCUMENT CONTROL SYSTEM TO USE WHEN TRANSMITTING FORMAL PROJECT CORRESPONDENCE.
15. THE CONTRACTOR SHALL FOLLOW RTD'S PUBLIC INFORMATION TEAM PROTOCOL FOR CONVEYING PROJECT INFORMATION TO THE PUBLIC.
16. THE CONTRACTOR SHALL PROTECT EXISTING INFRASTRUCTURE, BUILDINGS, TREES, AND LANDSCAPING THAT ARE DESIGNATED TO REMAIN. ANY OF THESE ELEMENTS DAMAGED OR INJURED DURING CONSTRUCTION WILL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
17. THE CONTRACTOR SHALL KEEP EXISTING DRAINAGE STRUCTURES AND PATHWAYS FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.
18. THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM WATER AT ALL TIMES. AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED AT NO COST TO THE OWNER.
19. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS ORDERED AND WILL NOT BE PAID FOR SEPARATELY.
20. DO NOT SCALE DRAWINGS. WORK TO BE FIELD MEASURED AND CALCULATED DIMENSIONS ONLY.
21. VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO ORDERING MATERIALS AND FABRICATING AND CONSTRUCTING THE WORK.
22. RTD CONSTRUCTION PERMITS REQUIRED:
    A. CONSTRUCTION IMPACTING RTD RAIL AND/OR WITHIN 25 FEET OF RTD TRACKS:
        a. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MAINTENANCE OF WAY (MOW) LIGHT RAIL RIGHT OF WAY ACCESS PERMIT TO PERFORM WORK. THE RTD LIGHT RAIL RIGHT OF WAY ACCESS REQUEST PERMIT CAN BE FOUND AT: www.rtd-denver.com/Documents/RailOperationsAccessPermit.doc
        b. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING A WRITTEN SAFETY PROGRAM CONFORMING TO THE REQUIREMENTS OF THE RTD CONSTRUCTION SAFETY MANUAL. RTD'S ON-TRACK SAFETY TRAINING IS REQUIRED FOR ALL PERSONNEL PERFORMING WORK IN THE VICINITY OF LIGHT RAIL, COMMUTER RAIL AND FREIGHT RAIL SYSTEMS. CONTACT LRT SAFETY COMPLIANCE OFFICER, AT 303-299-_____TO SCHEDULE.
        c. CONTRACTOR MUST ATTEND MANDATORY MAINTENANCE OF WAY (MOW) THURSDAY MEETING. CONTACT _____ AT 303 299-_____.
    B. CONSTRUCTION IMPACTING RTD BUILDING, PARK-N-RIDE, OR OTHER RTD PROPERTY, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMITS AND LICENSES TO PERFORM WORK WITHIN RTD ROW. THE BUILDING AND GROUNDS ACCESS PERMIT (BGAP) CAN BE FOUND AT: www.rtd-denver.com/PDF_Files/rtd-building-grounds-permit-form.pdf. CONTACT FACILITIES MAINTENANCE FACILITIES AT 303-299-2977 FOR PERMIT (BGAP) INFORMATION.
    C. FOR PROJECTS THAT ARE MAINTAINED BY DENVER TRANSIT OPERATORS (DTO), CONTACT _____ FOR PERMITS.

II. SURVEY NOTES:

1. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL SURVEY MONUMENTS, BENCH MARKS, RANGE TIES, PROPERTY MARKERS, REFERENCE POINTS, AND STAKES. IN CASE OF DESTRUCTION OF THESE, THE CONTRACTOR WILL BE CHARGED WITH THE EXPENSE OF REPLACEMENT AND SHALL BE RESPONSIBLE FOR ANY MISTAKE OR LOSS OF TIME THAT MAY BE CAUSED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL LAND SURVEY MONUMENTS DISRUPTED BY CONSTRUCTION ACTIVITIES OR BY NEGLIGENCE ON THE PART OF THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO FOLLOW COLORADO STATE LAW REGARDING SURVEY MONUMENTS. THE CONTRACTOR SHALL RETAIN A COLORADO LICENSED PROFESSIONAL LAND SURVEYOR TO RESET ANY AFFECTED SURVEY MONUMENTS.

III. UTILITIES

1. EXISTING UTILITIES AS SHOWN ON THE DRAWINGS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES THAT IMPACT THIS PROJECT.
2. POTHOLES OF UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE SUBSIDIARY TO THE WORK UNDER THIS CONTRACT
3. NOT ALL SERVICE LINES ARE SHOWN ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RECONNECT ALL EXISTING SERVICES THAT MAY BE IMPACTED.
4. THE CONTRACTOR SHALL COMPLY WITH ARTICLE 1.5 OF TITLE 9, CRS ("EXCAVATION REQUIREMENTS") WHEN EXCAVATING OR GRADING IS PLANNED IN THE AREA OF UNDERGROUND UTILITY FACILITIES. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITIES AT LEAST TWO (2) BUSINESS DAYS, NOT INCLUDING THE ACTUAL DAY OF NOTICE, PRIOR TO COMMENCING SUCH OPERATIONS. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987 OR 811 TO HAVE LOCATIONS OF UNCC REGISTERED LINES MARKED BY MEMBER COMPANIES. ALL OTHER UNDERGROUND FACILITIES SHALL BE LOCATED BY CONTACTING THE RESPECTIVE OWNER. UTILITY SERVICE LATERALS SHALL ALSO BE LOCATED PRIOR TO BEGINNING EXCAVATION OR GRADING.
5. THE CONTRACTOR SHALL COOPERATE AND COORDINATE ALL UTILITY WORK WITH THE CONCERNED UTILITY COMPANY OR AGENCY, AS WELL AS RTD.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADJUST AND/OR REPLACE ALL WATER VALVE BOXES AND MANHOLES TO MEET FINAL GRADES IN THIS CONSTRUCTION AREA.
7. THE CONTRACTOR IS REQUIRED TO RESET, ADJUST, OR REPLACE ANY UTILITIES THAT ARE IMPACTED BY CONSTRUCTION AND DESIGNATED TO REMAIN.
8. UNLESS SPECIFICALLY NOTED ON THE PLANS, THE CONTRACTOR WILL NOT BE COMPENSATED FOR WORK OUTSIDE THE LIMITS OF CONSTRUCTION
9. WHERE TREES ARE REMOVED, ASSOCIATED IRRIGATION LINES SHALL BE CAPPED ONLY FOR THE REMOVED TREES. IRRIGATION LINES SHALL BE MODIFIED AS NECESSARY TO MAINTAIN FUNCTIONALITY TO ADJACENT TREE.
10. STRUCTURAL EXCAVATION, INCLUDING DISPOSAL OF SPOILS, AND BACKFILL FOR INLETS, PIPES, MANHOLES & HEADWALLS SHALL BE INCLUDED IN COST OF EACH ITEM.
11. ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III (MINIMUM).

IV. TRAFFIC CONTROL & CONSTRUCTION PHASING

1. TRAFFIC CONTROL DEVICES AND BARRICADES MUST BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
2. CONTRACTOR SHALL BE RESPONSIBLE FOR JURISDICTIONAL APPROVAL OF ALL TRAFFIC MANAGEMENT PLANS.
3. TRAFFIC CONTROL DEVICES AND BARRICADES MUST BE KEPT IN GOOD WORKING ORDER AT ALL TIMES. NO PAYMENT WILL BE MADE FOR BARRICADES THAT ARE DAMAGED, INOPERABLE, OR HAVE NON-FUNCTIONAL LIGHTS (IF REQUIRED), ETC. IF THE CONTRACTOR EXCEEDS THE WORKING TIME LIMIT FOR THE PROJECT, ALL TRAFFIC CONTROL AND BARRICADING COSTS INCURRED AFTER THE WORKING TIME LIMIT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND WILL NOT BE REIMBURSED BY RTD. IF THE WORKING TIME LIMIT IS EXCEEDED BY THE CONTRACTOR, THE PROJECT MUST STILL BE SIGNED AND BARRICADED PROPERLY AND SAFELY AT ALL TIMES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL DESIGNATE A TRAFFIC CONTROL SUPERVISOR TO BE RESPONSIBLE FOR TRAFFIC CONTROL AND BARRICADING FOR THE PROJECT. IT WILL BE THAT PERSON'S RESPONSIBILITY TO MAKE SURE ALL BARRICADES ARE PROPERLY PLACED ON THE PROJECT AT ALL TIMES, AND THAT TRAFFIC IS BEING MAINTAINED AS APPROVED. THE CONTRACTOR MUST CHECK THE BARRICADES EVERY DAY, INCLUDING WEEKENDS AND HOLIDAYS, TO MAKE SURE ALL BARRICADES ARE CORRECTLY PLACED AND FUNCTIONAL. THE COST FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND WILL NOT BE PAID FOR SEPARATELY.

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RTD ENGINEERING DIVISION
REGIONAL TRANSPORTATION DISTRICT
1600 BLAKE STREET
DENVER, COLORADO 80202
(303) 628-9000

BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
STANDARD NOTES - 1 OF 2

SHEET REFERENCE NUMBER: SD-G106A

V. SURFACE IMPROVEMENTS

1. DIMENSIONS SHOWN TO RIGHT-OF-WAY LINES AND EXISTING PHYSICAL STRUCTURES ARE TYPICAL AND MAY VARY.

2. FOR STREETS WITH CURBS, DIMENSIONS ARE TO FLOWLINE, UNLESS OTHERWISE INDICATED.

3. REMOVAL OF EXISTING ASPHALT MATERIAL, CONCRETE PAVEMENT, CURB AND GUTTER, OR SIDEWALK REQUIRED SHALL BE SAW CUT TO A VERTICAL EDGE. COST TO BE INCLUDED IN WORK. LIMITS OF REMOVAL SHALL BE VERIFIED BY RTD'S CONSTRUCTION PROJECT MANAGER PRIOR TO THEIR REMOVAL.

4. EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

5. THE TYPE OF COMPACTION FOR EARTHWORK SHALL BE AASHTO T99 UNLESS OTHERWISE NOTED.

6. ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED. FOR PLAN QUANTITIES OF BITUMINOUS MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

   a. DILUTED EMULSIFIED ASPHALT (SLOW SETTING) AT 0.10 GALLONS/SQ. YD. (DILUTED)

   b. BITUMINOUS PAVEMENT AT 110 LBS./SQ. YD. PER ONE-INCH THICKNESS

7. WHEN ORDERED BY THE CONSTRUCTION PROJECT MANAGER, A TACK COAT OF EMULSIFIED ASPHALT (SLOW-SETTING) IS TO BE APPLIED BETWEEN PAVEMENT COURSES TO IMPROVE THE BOND. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF ONE PART EMULSIFIED ASPHALT AND ONE PART WATER.

8. RATES OF APPLICATION SHALL BE AS DETERMINED BY THE CONSTRUCTION PROJECT MANAGER AT THE TIME OF APPLICATION.

9. CONCRETE SHALL BE DEPTH(S) AS SHOWN ON THE DRAWINGS AND OF MIX DESIGN CLASS "P" (4200 PSI AT 28 DAYS), W/NOVOMESH e3 FIBER REINFORCEMENT. APPLICATION RATE FOR THE FIBER MESH SHALL BE 5 LBS PER CUBIC YARD.

10. DEPTH OF MOISTURE - DENSITY CONTROL - SHALL BE AS FOLLOWS:
    a. FULL DEPTH OF ALL EMBANKMENTS
    b. BASES OF CUTS AND FILLS 1.0 FOOT

11. SUBGRADE MATERIALS DEEMED UNSUITABLE BY THE CONSTRUCTION PROJECT MANAGER WILL BE EXCAVATED, DISPOSED OF, AND REPLACED WITH APPROVED MATERIAL. REMOVAL OF MATERIAL BELOW PROPOSED TOP OF SUBGRADE AND SUBSEQUENT CONDITIONING WILL BE PAID FOR AS UNCLASSIFIED EXCAVATION AND STRUCTURAL BACKFILL.

12. PRIOR TO PLACING NEW EMBANKMENTS ON EXISTING GROUND AND AFTER SPECIFIED COMPACTION HAS BEEN OBTAINED, THE EXISTING SURFACES SHALL BE PROOF-ROLLED AND MONITORED FOR SETTLEMENT. SOFT SPOTS SHALL BE STABILIZED AT THE DIRECTION OF THE ENGINEER.

V. LANDSCAPING

LANDSCAPING ON THE PROJECT SHALL BE MAINTAINED THROUGH_____.

VI. CONTRACTOR REVISION DRAWINGS

1. STARTING WITH THE APPROVED ISSUED OR RELEASED FOR CONSTRUCTION (IFC\RFC) DRAWINGS, CONTRACTOR SHALL KEEP A RECORD OF ALL CHANGES TO THE PROJECT, AND SUBMIT UPDATED DRAWINGS EVERY MONTH. THE FINAL SET SHALL BE SUBMITTED PRIOR TO PUNCH LIST WALK THROUGH. SUBMITTALS SHALL BE MADE USING ELECTRONIC PDF FILES.

2. CONTRACTOR SHALL CLOSE OUT CONSTRUCTION PERMITS WITH AGENCIES HAVING JURISDICTION, AND SUBMIT FINAL COPIES BEFORE PROJECT ACCEPTANCE.

3. THE RTD CONSTRUCTION MANAGER SHALL PROVIDE A LIST OF ALL DOCUMENTS THAT NEED TO BE SUBMITTED PRIOR TO CLOSE OUT OF THE PROJECT.

VII. TRACER WIRE

1. GENERAL

   a. INSTALL ELECTRICALLY CONTINUOUS TRACER WIRE WITH ACCESS POINTS AS DESCRIBED HEREIN TO BE USED FOR LOCATING UNDERGROUND UTILITIES WITH AN ELECTRONIC PIPE LOCATOR AFTER INSTALLATION.

   b. TRACER WIRE SHALL BE INSTALLED WITH THE FOLLOWING UTILITIES: CHILLED WATER, NATURAL GAS, COMPRESSED AIR, STEAM, NON-POTABLE WATER, WATER, ELECTRICAL, COMMUNICATIONS, OR OTHER INSTALLATIONS AS INDICATED ON THE CONSTRUCTION DOCUMENTS.

2 PRODUCTS

   a. TRACER WIRE MATERIAL

      i. TRACER WIRE SHALL BE CONSTRUCTED WITH A # 12 AWG COPPER CONDUCTOR AND WITH A 45 MIL HDPE INSULATED JACKET RECOMMENDED FOR DIRECT BURIAL. JACKET COLOR SHALL BE SUITABLE FOR THE UTILITY BEING TRACED PER THE AMERICAN PUBLIC WORK ASSOCIATION UNIFORM COLOR CODE, PER ANSI STANDARD Z535.1. COLORS UTILIZED BY RTD ARE: RED FOR ELECTRIC; YELLOW FOR NATURAL GAS, COMPRESSED AIR AND STEAM; GREEN FOR STORM SEWER; BROWN FOR SANITARY SEWER; ORANGE FOR COMMUNICATIONS; BLUE FOR POTABLE WATER; PURPLE FOR NON-POTABLE WATER AND CHILLED WATER.

      ii. WIRE CONNECTORS TO BE 3M DBR, OR APPROVED EQUAL, AND SHALL BE WATERTIGHT TO PROVIDE ELECTRICAL CONTINUITY.

      iii. COPPER CONDUCTORS: COPPER CONDUCTORS SHALL BE ANNEALED COPPER (SOFT DRAWN). CONDUCTORS SHALL MEET OR EXCEED ALL APPLICABLE ASTM SPECIFICATIONS, AND REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, INCLUDING: ASTM B-3, STANDARD SPECIFICATION FOR SOFT OR ANNEALED COOPER WIRE; AND ASTM B-170, STANDARD SPECIFICATION FOR SOFT ON ANNEALED COPPER WIRE.

      iv. HDPE JACKET: CONDUCTORS SHALL BE INSULATED WITH HIGH DENSITY, HIGH MOLECULAR WEIGHT, POLYETHYLENE (HDPE) INSULATION. JACKET SHALL MEET OR EXCEED ALL APPLICABLE ASTM SPECIFICATIONS, AND REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, INCLUDING: ASTM D1248, STANDARD SPECIFICATION OF POLYETHYLENE PLASTICS EXTRUSION MATERIALS FOR WIRE AND CABLE; AND ASTM D1238 STANDARD TEST METHODS FOR MELT FLOW RATES OF THERMOPLASTICS BY EXTRUSION PLASTOMETER.

   b. UNDERGROUND TERMINALS

      i. FOR LOCATIONS WHERE VALVE BOXES, VAULTS, OR SIMILAR ACCESS POINTS ARE NOT PRESENT, UNDERGROUND TERMINALS, OR “FINK BOXES”, SHALL BE FLUSH MOUNT TYPE, INSTALLED WITH A CONCRETE COLLAR. TERMINAL BOXES SHALL HAVE AT LEAST FOUR SPARE TERMINALS TO ALLOW FOR FUTURE USE. TERMINAL BOXES SHALL BE INSTALLED FLUSH WITH FINISHED GRADE, AND CENTERED IN A GRADE LEVEL CONCRETE PAD. THE CONCRETE PAD SHALL MEASURE 18 INCHES BY 18 INCHES, AND BE 6 INCHES DEEP.

      II. HOUSING, COVER, AND TERMINAL BOARD SHALL BE MADE OF HIGH STRENGTH POLYCARBONATE ALLOY PLASTIC. THE COMPLETE ASSEMBLY SHALL BE RATED FOR H20 TRAFFIC LOADING AND IMPERVIOUS TO CHEMICALS ROUTINELY USED IN STREET MAINTENANCE AND SNOW REMOVAL.

      III. TERMINAL BOARD SHALL HAVE NICKEL PLATED BRASS TERMINALS. NUMBER OF TERMINALS SHALL BE AS REQUIRED FOR SPECIFIC INSTALLATION WITH A LEAST FOUR SPARE TERMINALS AVAILABLE AT THE DATE OF INSTALLATION.

      IV. MINIMUM DIMENSIONS SHALL BE 5-1/2 INCH DIAMETER, 8 INCHES HIGH, AND BASE SHALL BE SIZED TO FIT A 4 INCH SCHEDULE 40 PIPE.

   c. TESTING REQUIREMENTS

CONTRACTOR SHALL PERFORM A CONTINUITY TEST ON ALL TRACER WIRE IN THE PRESENCE OF RTD OR RTD'S REPRESENTATIVE AT THE TIME THE BACKFILL IS COMPLETED TO FINAL GRADE. LOCATE INSTRUMENTS SHALL BE OPERATED ON THE TRACER WIRE TO VERIFY THE INSTALLATION IS FULLY FUNCTIONING, COMPLETE AND CONTINUOUS. IF THE TRACER WIRE IS FOUND TO BE NOT CONTINUOUS OR FUNCTIONAL AFTER TESTING, CONTRACTOR SHALL REPAIR OR REPLACE THE FAILED SEGMENT OF THE WIRE AT THEIR OWN EXPENSE.

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RTD ENGINEERING DIVISION
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1600 BLAKE STREET
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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
STANDARD NOTES - 2 OF 2

SHEET REFERENCE NUMBER:
SD-G106B
06 OF 68

SUMMARY OF APPROXIMATE QUANTITIES

ITEM	ITEM NO.	DESCRIPTION	QTY.	UNIT	PROJECT TOTALS PLAN	PROJECT TOTALS AS CNST.
PART A - INFRASTRUCTURE						
1A	XXX	XXXXX XXXXX	XXX	XXX		
2A	XXX	XXXXX XXXXX	XXX	XXX		
3A	XXX	XXXXX XXXXX	XXX	XXX		
4A	XXX	XXXXX XXXXX	XXX	XXX		
5A	XXX	XXXXX XXXXX	XXX	XXX		
6A	XXX	XXXXX XXXXX	XXX	XXX		
7A	XXX	XXXXX XXXXX	XXX	XXX		
8A	XXX	XXXXX XXXXX	XXX	XXX		
9A	XXX	XXXXX XXXXX	XXX	XXX		
10A	XXX	XXXXX XXXXX	XXX	XXX		
11A	XXX	XXXXX XXXXX	XXX	XXX		
12A	XXX	XXXXX XXXXX	XXX	XXX		
13A	XXX	XXXXX XXXXX	XXX	XXX		
14A	XXX	XXXXX XXXXX	XXX	XXX		
15A	XXX	XXXXX XXXXX	XXX	XXX		
16A	XXX	XXXXX XXXXX	XXX	XXX		
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18A	XXX	XXXXX XXXXX	XXX	XXX		
19A	XXX	XXXXX XXXXX	XXX	XXX		
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PART B - LANDSCAPE / IRRIGATION						
1B	XXX	XXXXX XXXXX	XXX	XXX		
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3B	XXX	XXXXX XXXXX	XXX	XXX		
4B	XXX	XXXXX XXXXX	XXX	XXX		
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27B	XXX	XXXXX XXXXX	XXX	XXX		
28B	XXX	XXXXX XXXXX	XXX	XXX		
29B	XXX	XXXXX XXXXX	XXX	XXX		
PART C - MAINTENANCE						
1C	XXX	XXXXX XXXXX	XXX	XXX		

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RTD ENGINEERING DIVISION

REGIONAL TRANSPORTATION DISTRICT
1600 BLAKE STREET
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(303) 628-9000

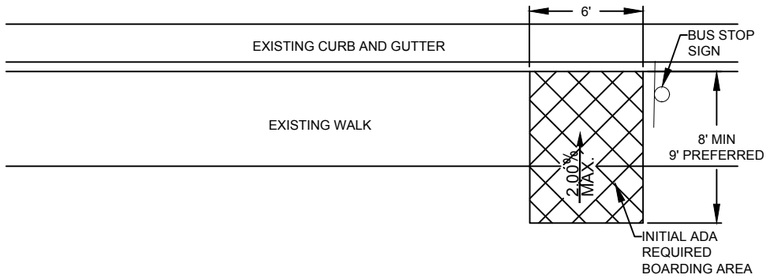
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

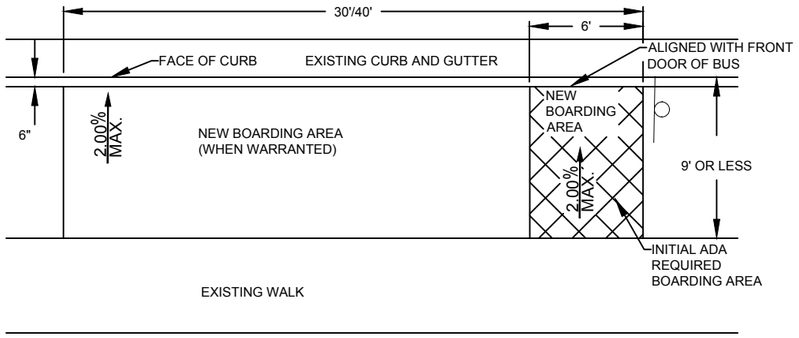
GENERAL
APPROXIMATE QUANTITIES

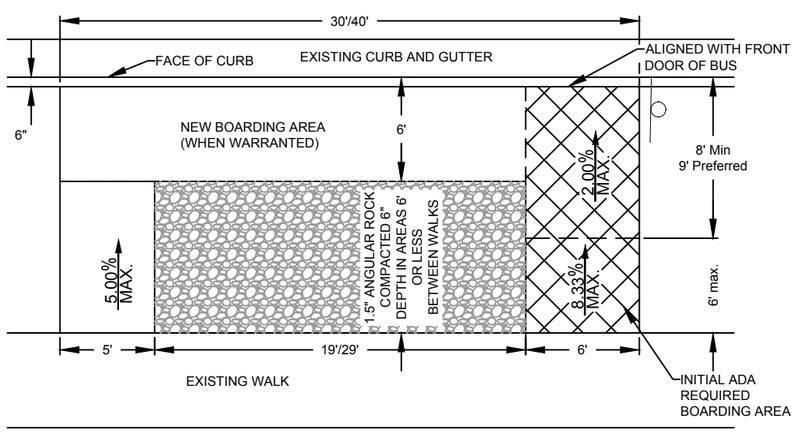
SHEET REFERENCE NUMBER:
SD-G107
07 OF 68

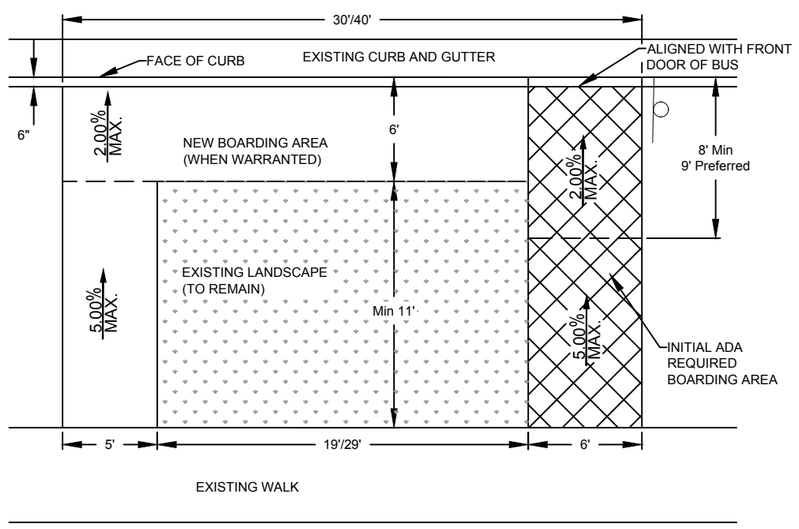
NOTES:

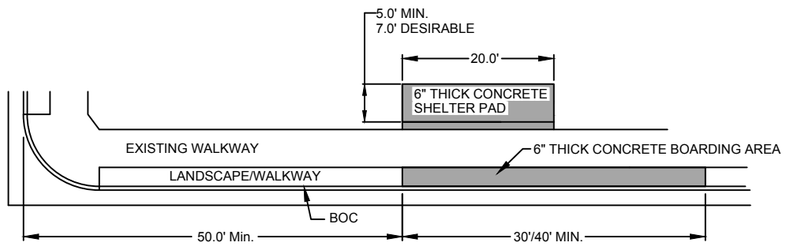
1. FAR SIDE BUS STOPS ARE PREFERRED.
2. BUS STOP LOCATIONS SHALL BE COORDINATED WITH RTD SERVICE PLANNING AND LOCAL AGENCIES.
3. BUS PAD INSTALLATION IS DETERMINED BY PAVING DESIGN, SOIL, AND SUBGRADE CONDITIONS, PREFERENCES OF LOCAL AGENCIES, AND FUNDING AVAILABILITY.
4. WIDTH OF BOARDING AREA CONCRETE BOARDING PAD SHALL BE 9' WHEN EXISTING ROW IS AVAILABLE, OTHERWISE A MINIMUM WIDTH OF 8' IS REQUIRED.
5. CONCRETE SHALL BE A MINIMUM THICKNESS OF 6".
6. A 6" THICK CONCRETE SHELTER PAD SHALL BE PROVIDED 20' IN LENGTH AND 5' MINIMUM (7' DESIRABLE) FOR PLACEMENT OF BUS SHELTER, SET BACK A MINIMUM OF 8' (9' DESIRABLE) TO ALLOW FOR DEPLOYMENT OF LIFTS FROM BUSES FOR THE AID OF DISABLED PASSENGERS.
7. FAR SIDE BUS STOPS SHALL HAVE FRONT OF BOARDING AREA PLACED 90' MINIMUM FROM FACE OF CURB OF THE EXISTING CROSS STREET.
8. NEAR SIDE BUS STOPS SHALL HAVE FRONT OF BOARDING AREA PLACED 50' MINIMUM FROM FACE OF CURB OF THE EXISTING CROSS STREET.
9. CONCRETE BOARDING AREA SHALL BE PROVIDED ENTIRE 30'/40' FROM FACE OF EXISTING WALK TO BACK OF CURB WHEN BUS SHELTER IS INSTALLED.

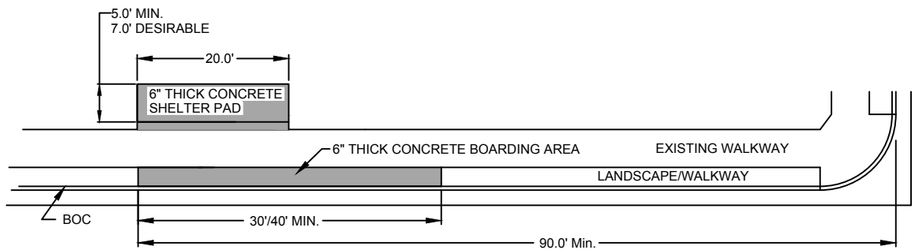












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RTD ENGINEERING DIVISION
REGIONAL TRANSPORTATION DISTRICT
1600 BLAKE STREET
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(303) 628-9000

BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
BUS STOP LAYOUT

SHEET REFERENCE NUMBER:
SD-C101
08 OF 68

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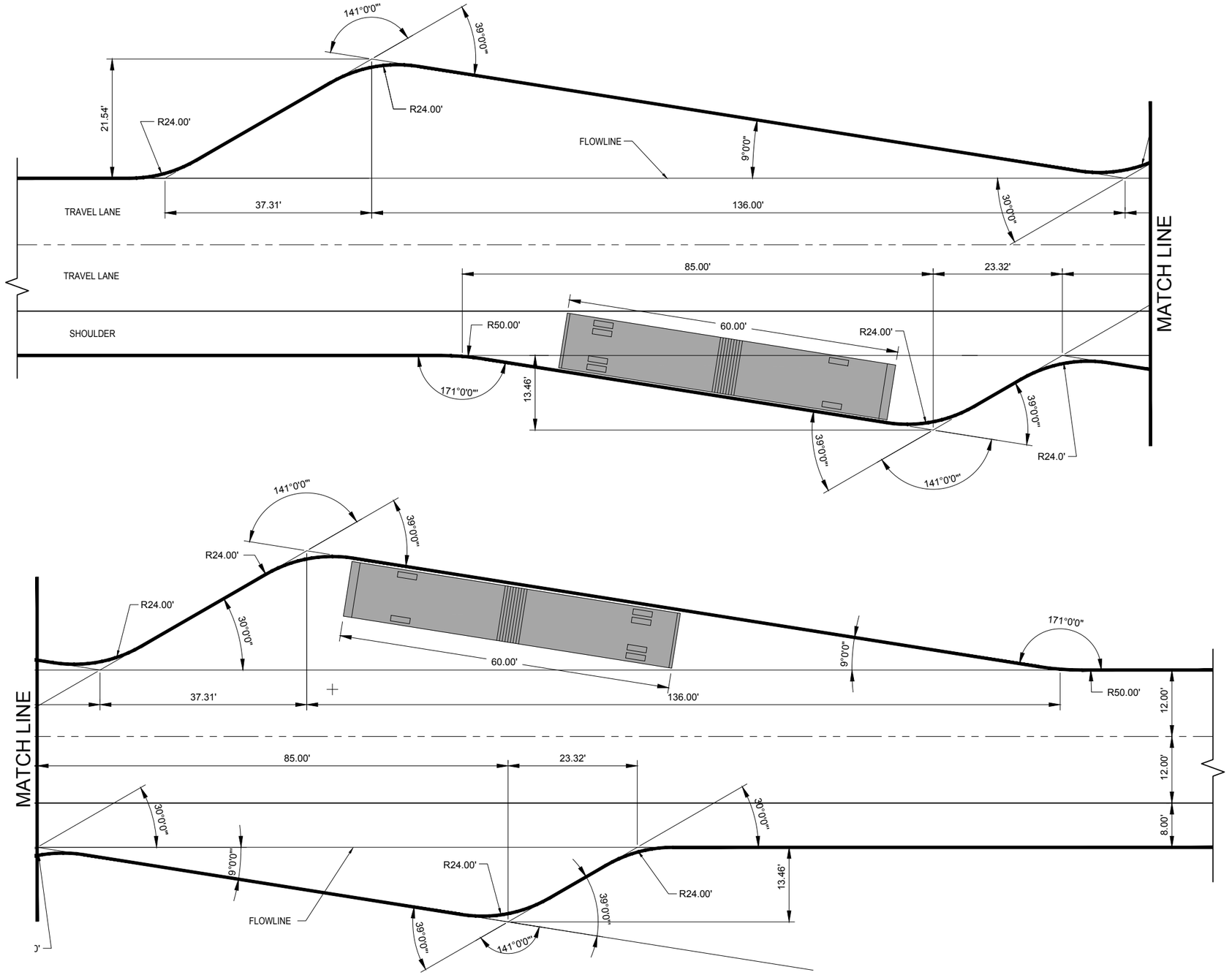

1 SAWTOOTH BUS BAY FOR 60' ARTICULATED BUS
SCALE: 1" = 10'

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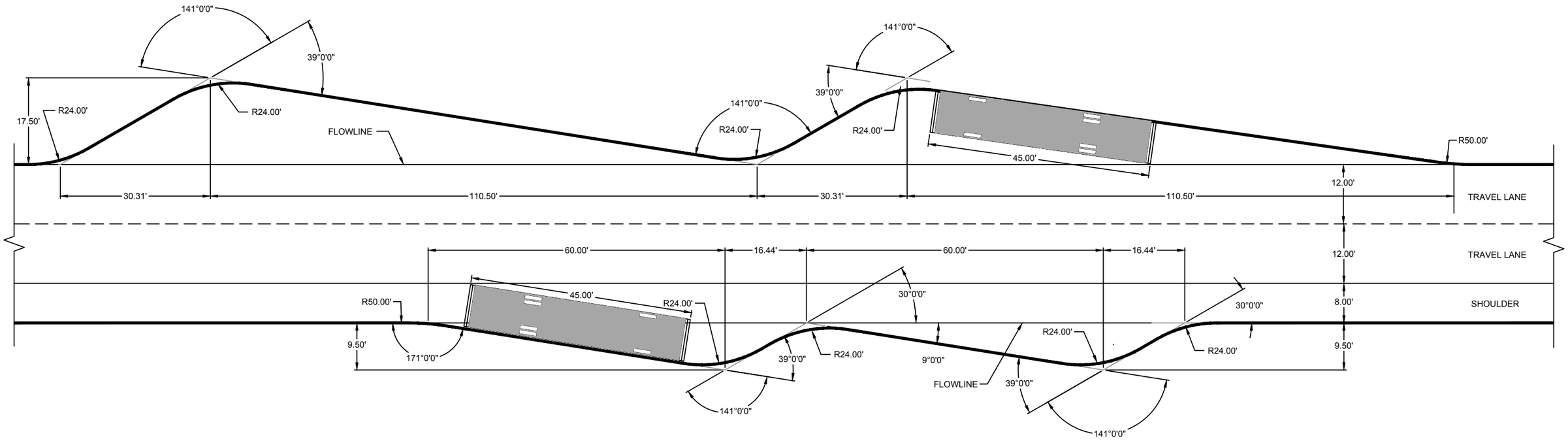
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
SAWTOOTH BUS BAY FOR 60' ARTICULATED BUS

SHEET REFERENCE NUMBER:
SD-C102
09 OF 68



1 SAWTOOTH BUS BAY FOR 45' BUS

SCALE: 1" = 10'

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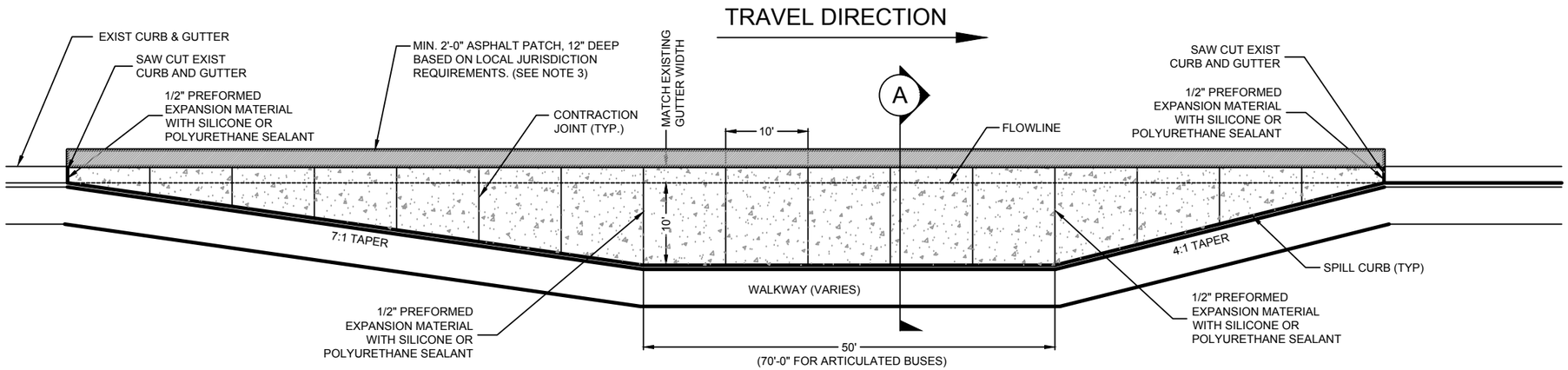
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
SAWTOOTH BUS BAY FOR 45' BUS

SHEET REFERENCE NUMBER:
SD-C103

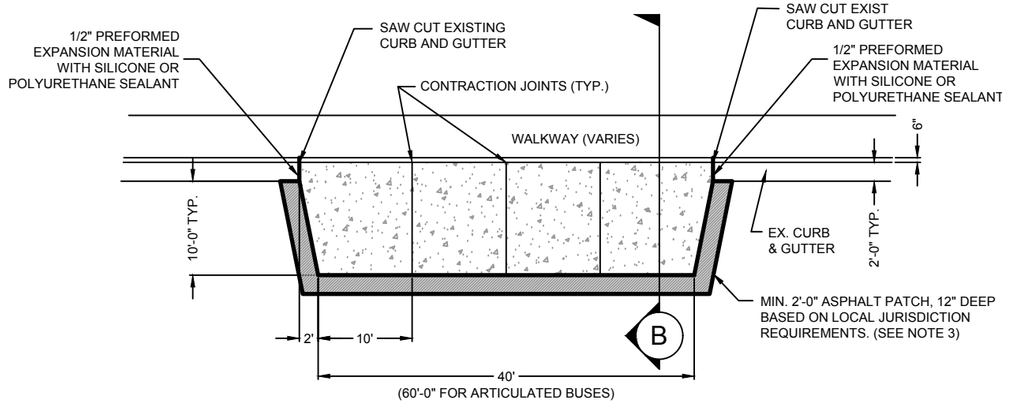


PLAN - TYPICAL BUS PULLOUT FOR A SINGLE 40' BUS

SCALE 1/8" = 1'-0"

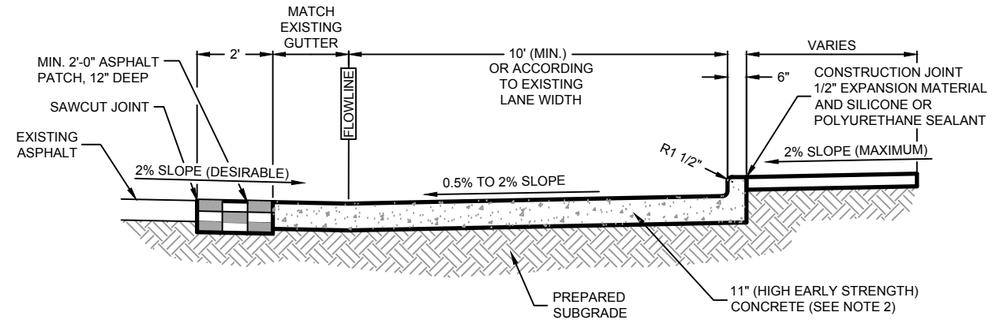
NOTES:

1. SILICONE OR POLYURETHANE SEALANTS SHALL BE NON-SAG, TOOLED AND SHALL BE IN ACCORDANCE WITH CDOT STANDARD SPECIFICATIONS SECTION 705 AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL SEALANTS SHALL BE INCLUDED IN THE CDOT's APPROVED PRODUCTS LIST.
2. NEW CURB AND GUTTER SHALL BE TYPE 2 (INTEGRAL) AND SHALL BE POURED MONOLITHICALLY WITH THE SLAB UNLESS OTHERWISE NOTED.
3. AT THE ENGINEERS DISCRETION AND IF NO LOCAL JURISDICTIONAL REQUIREMENTS, THE MIN. 2'-0" ASPHALT PATCH MAY BE DELETED, IF THE SAW CUTTING OF THE EXISTING ASPHALT PRODUCES A STRAIGHT LINE OF PLUS OR MINUS 1/2" IN 20'.
4. WHERE LANE DIMENSIONS DIFFER FROM SHOWN, BUS PAD SHALL EXTEND TO THE EDGE OF THE LANE LINE. WHEN BUS PAD IS LOCATED WITHIN STREET SIDE PARKING, THE BUS PAD SHOULD MATCH THE EDGE OF THE ADJACENT TRAVEL LANE.
5. THE BUS BAY GEOMETRY SHALL NOT BE CHANGED WITHOUT THE APPROVAL OF RTD ENGINEERING AND SERVICE PLANNING.
6. DESIGNER SHALL VERIFY THE TYPE OF BUSES EXPECTED TO BE USED ON THE ROUTE.
7. THE OPTIMUM CURB HEIGHT FOR BUS WHEELCHAIR LIFTS AND RAMPS IS 6"
8. THE LONGITUDINAL SLOPE OF THE ATTACHED SIDEWALK SHOULD BE THE SAME AS OF THE ROAD, IN ORDER FOR THE SAFETY FEATURES OF LIFTS AND RAMPS ON THE BUSES TO WORK PROPERLY.



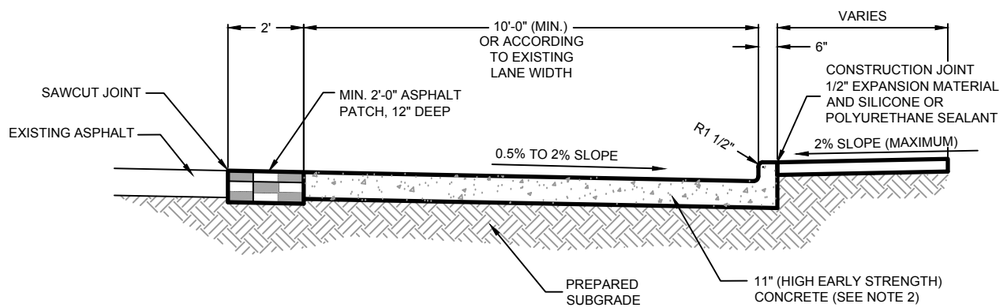
PLAN - CONCRETE BUS PAD

SCALE 1/8" = 1'-0"



A SECTION - BUS PULLOUT

SCALE 1/2" = 1'-0"



B SECTION - CONCRETE BUS PAD

SCALE 1/2" = 1'-0"

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RTD ENGINEERING DIVISION
REGIONAL TRANSPORTATION DISTRICT
1600 BLAKE STREET
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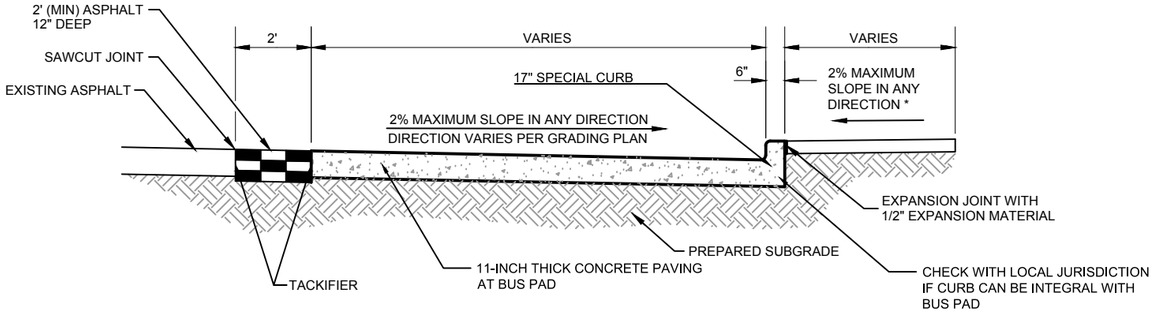
(303) 628-9000

BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
40' BUS PULL OUT & CONCRETE PAD

SHEET REFERENCE NUMBER:
SD-C104
11 OF 68



* THE SIDEWALK SHALL SLOPE TOWARDS BUS PAD FOR THE OPERATION OF ADA RAMPS ON BUSES.

A TYPICAL SECTION - BUS PAD

GENERAL NOTES:

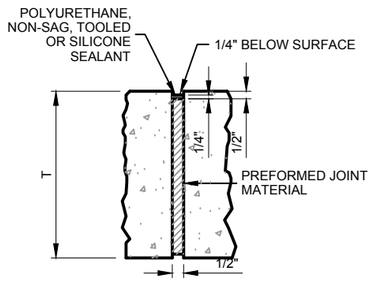
1. CONCRETE CURB AND GUTTER SHALL BE TYPE 2, AS DEFINED BY COLORADO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS. THE USE OF CURB WITHOUT GUTTER SHALL BE DISCOURAGED IN NEW CONSTRUCTION.
2. PAVEMENT JOINTING PLANS SHALL COMPLY WITH COLORADO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS M-412, WITH THE EXCEPTION OF JOINT TYPES, JOINT TYPES ARE LISTED BELOW.
3. LAYOUT FOR THE CONTRACT JOINTING PLANS TO BE APPROVED BY THE ENGINEER.
4. PLACE TRANSVERSE JOINTS PERPENDICULAR TO THE CENTERLINE OF PAVEMENT AND EXTEND THROUGH THE CURB.
5. IMMEDIATELY AFTER SAWING, JOINTS SHALL BE CLEANED OF CEMENT SLURRY WITH A PRESSURED WATER JET OR OTHER ACCEPTABLE METHOD. JOINTS SHALL ALSO BE CLEANED WITH COMPRESSED AIR JUST AHEAD (100' OR LESS) OF PLACING BACKER ROD AND POURED JOINT MATERIAL. THE ENGINEER MAY REQUIRE OTHER METHODS IF NECESSARY TO CLEAN JOINT. ALL SEALANT SHALL BE APPLIED IN ACCORDANCE WITH IT'S MANUFACTURER'S RECOMMENDATIONS.

▰ TIE BARS SHALL BE EPOXY COATED, DEFORMED REINFORCING BARS PER AASHTO M 284: NO. 4 WHEN T<8"
NO. 5 WHEN T=8" TO 10"
NO. 6 WHEN T>10"

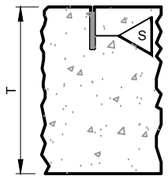
● BACKER ROD OF CLOSED CELL POLYETHYLENE STRAND AS APPROVED.

JOINT SEALANT SHALL BE SIKAFLEX 2C NS OR APPROVED EQUAL. IT SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. EXPANSION JOINT MATERIAL SHALL MEET AASHTO M213. ALL SEALANTS SHALL BE INCLUDED IN THE CDOT's APPROVED PRODUCTS LIST.

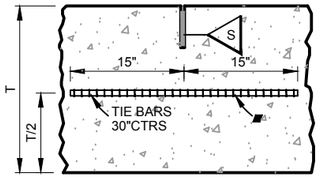
✷ GUTTER CROSS SLOPES SHALL BE 1/2" /FT WHEN DRAINING AWAY FROM CURB AND 1"/FT WHEN DRAINING TOWARD CURB.



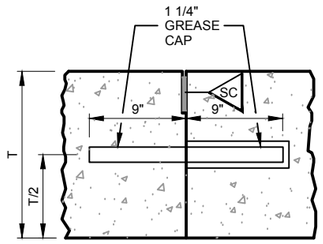
1 EXPANSION JOINT
(MODIFIED)



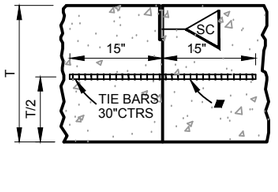
2 TRANSVERSE CONTRACTION JOINT
(TRANSVERSE WEAKENED PLANE JOINT)



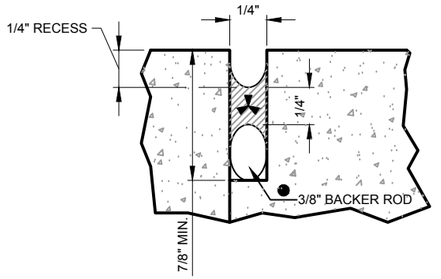
3 LONGITUDINAL CONTRACTION JOINT
(LONGITUDINAL WEAKENED PLANE JOINT)



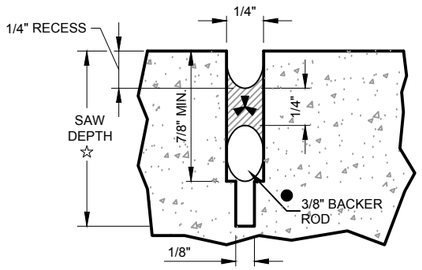
4 TRANSVERSE CONSTRUCTION JOINT
(MODIFIED)



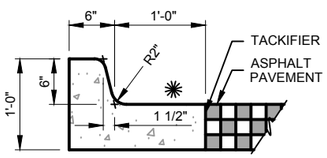
5 LONGITUDINAL CONSTRUCTION JOINT
(MODIFIED)



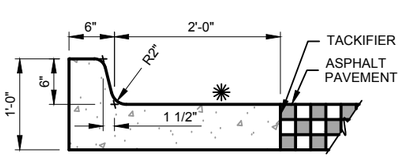
6 SEAL AT CONSTRUCTION JOINT
(MODIFIED)
SC



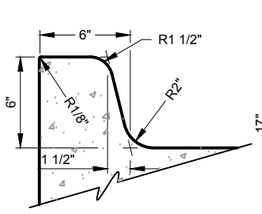
7 SAWED JOINT
S
☆ LONGITUDINAL JOINT = T/3
TRANSVERSE JOINT = T/4
(MODIFIED)



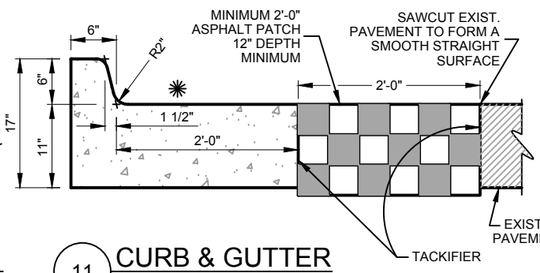
8 CURB & GUTTER TYPE 2-1B



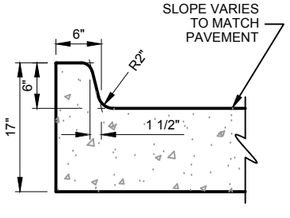
9 CURB & GUTTER TYPE 2-2B



10 CURB HEAD



11 CURB & GUTTER TYPE 2-2B (SPECIAL - 17")
USED ALONG BUS BAYS;
PROVIDE 10' TRANSITION
ON EITHER END



12 CURB & GUTTER TYPE 2 - INTEGRAL
USED ALONG BUS BAYS;
PROVIDE 10' TRANSITION
ON EITHER END

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
JOINT DETAILS & CURB PAVING DETAILS

SHEET REFERENCE NUMBER:
SD-C105
12 OF 68

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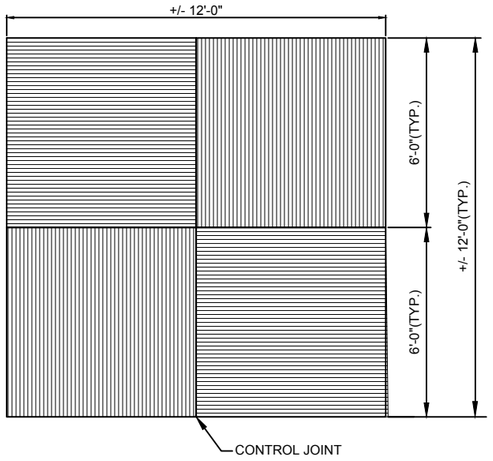
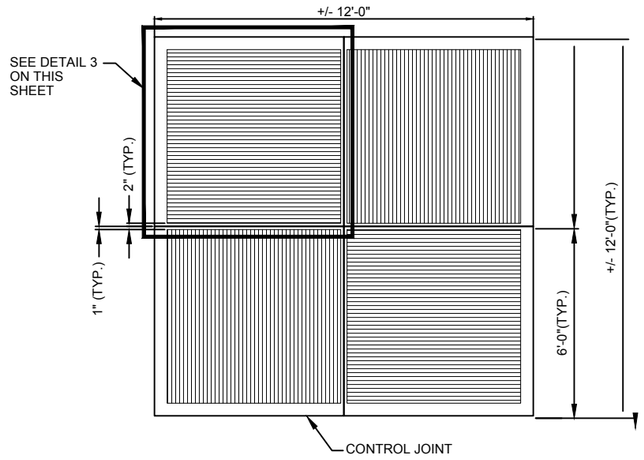


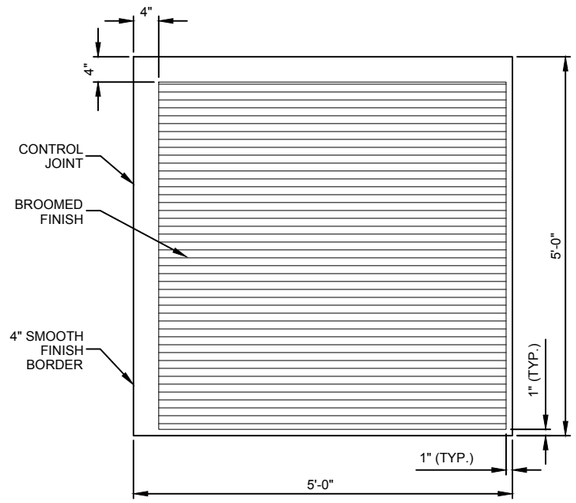
1 PLAZA CONCRETE PLAIN BROOMING PATTERN

SCALE: 1" = 2'



2 PLAZA CONCRETE WINDOW BROOMING PATTERN

SCALE: 1" = 2'



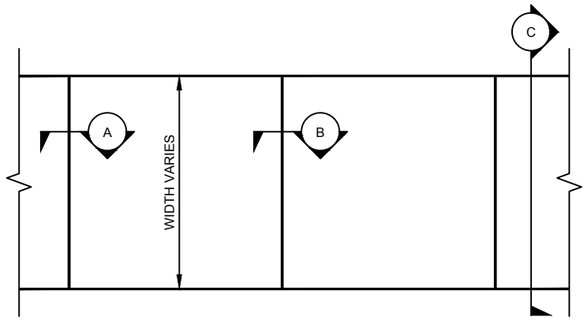
(NO BORDER IS NEEDED IF PLAIN BROOMING PATTERN IS CHOSEN)

3 WINDOW BROOMING PATTERN DETAIL

SCALE: 1" = 1'

NOTES:

1. WALKWAY AND PLAZA CONCRETE THICKNESS SHALL BE A MINIMUM OF SIX INCHES.
2. WALKWAY AND PLAZA SLOPE SHALL NOT EXCEED 2 PERCENT IN ANY DIRECTION. THIS REQUIREMENT SHALL BE CHECKED BY COMBINING THE LONGITUDINAL AND TRANSVERSE SLOPE ALONG PLAZAS AND WALKWAYS.
3. CONCRETE FOR WALKWAYS SHALL HAVE THE FOLLOWING MIX DESIGN: COMPRESSIVE STRENGTH 4200 PSI AT 28 DAYS. AIR CONTENT PERCENT RANGE 5-8; MAXIMUM WATER CEMENT RATIO 0.44; MAXIMUM AGGREGATE SIZE 1/2"; WITH NOVOMESH 950, APPLICATION RATE 5LB./C.Y; FINISH TYPE C - MEDIUM BROOM FINISH.
4. JOINTING PATTERN SHALL BE APPROVED BY THE RTD ENGINEER.
5. JOINT FILLERS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. ALL REINFORCING STEEL, IF REQUIRED, SHALL BE EPOXY COATED GRADE 60.
7. DISTURBED SUBGRADE SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
8. EXPANSION JOINT MATERIAL SHALL MEET AASHTO M213. ALL SEALANTS SHALL BE INCLUDED IN CDOT's APPROVED PRODUCTS LIST.
9. EXPANSION JOINTS SHALL TYPICALLY BE LOCATED:
   a. EVERY 100-FT (MAX)
   b. AT THE INTERFACE OF PLAZA OR WALKWAY WITH A BUILDING, LIGHT POLE, UTILITY MANHOLE, AT BREAK LINES OR OTHER FIXED OBJECT. USE CLOSED CELL FOAM EXPANSION MATERIAL FOR ROUND OBJECTS.
10. CONTROL JOINTS SHALL CREATE A SQUARE PATTERN AS FAR AS PRACTICABLE.
11. CONTROL JOINTS MAY BE TOOLED OR SAW CUT.



3 DETAIL 3 - TYPICAL WALKWAY

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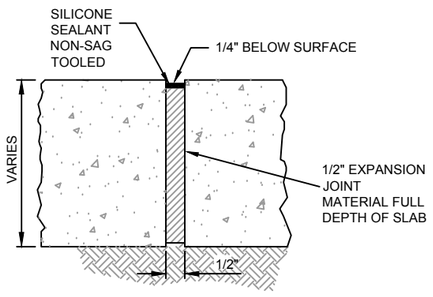
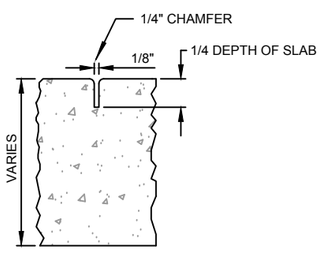


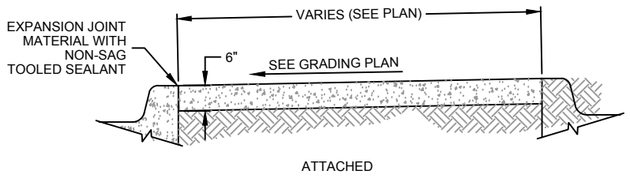
A EXPANSION JOINT

NTS



B TOOLED CONTROL JOINT

NTS



C WALKWAY

NTS

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
WALKWAY & PLAZA DETAILS

SHEET REFERENCE NUMBER:
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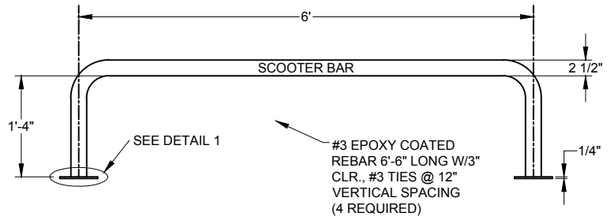
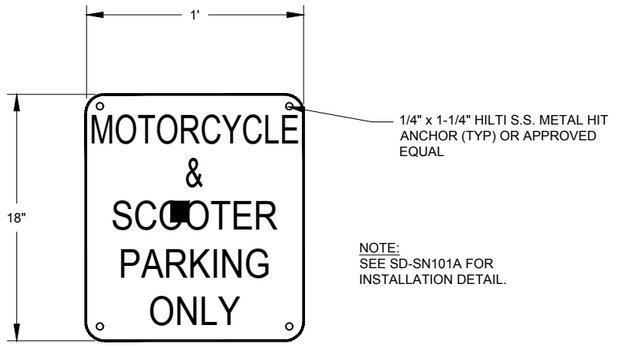


ELEVATION SCOOTER BAR

1" = 1'-0"



NOTE:
SEE SD-SN101A FOR INSTALLATION DETAIL.

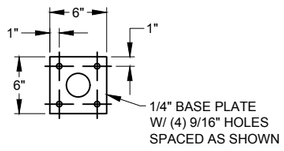
SIGN DETAIL

3" = 1'-0"

NOTE:

1. 2" SCHEDULE 40 STEEL PIPE, HOT DIP GALVANIZED. 1-1/4" BLACK STENCIL ON TOP OF BAR.

2. PROVIDE $\frac{3}{4}$" Ø THREADED ROD EPOXY ANCHORS WITH 4" EMBEDMENT. ALL HARDWARE SHALL BE GALVANIZED PER ASTM A153. DEFORM THREADS AFTER INSTALLATION.



DETAIL 1

1 1/2" = 1'-0"

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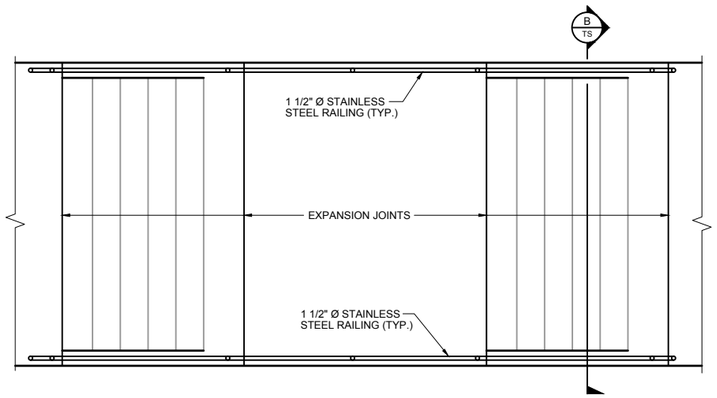
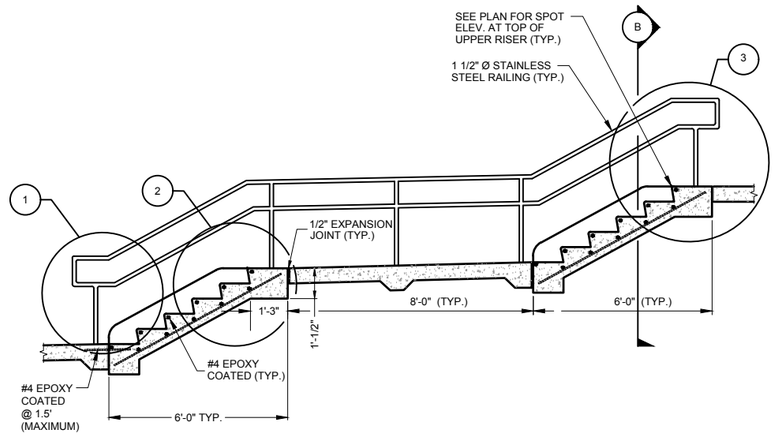
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
MOTOR CYCLE PARKING

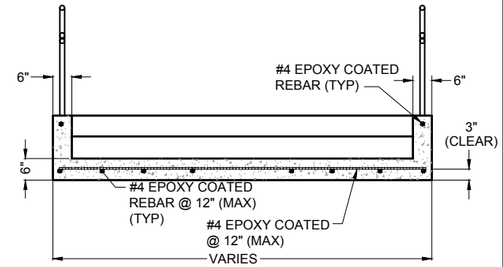
SHEET REFERENCE NUMBER:
SD-C107
14 OF 68



PLAN VIEW - STAIR
NTS



ELEVATION - STAIR
NTS



B SECTION B
NTS

NOTE:

1. STAINLESS STEEL OR GALVANIZED AND POWDER COATED RAILING IS REQUIRED UNLESS OTHERWISE SPECIFIED BY RTD.

2. STAINLESS STEEL FOR RAILINGS SHALL CONFORM TO TYPE 316. MILD STEEL FOR RAILING SHALL CONFORM TO ASTM A500 GR B.

3. WHEN RAILING IS USED AT RAMPS, THE TREAD LENGTH IS ALWAYS 11" (X = 11").

4. VERTICAL RISE FOR A FLIGHT OF STAIRS SHALL BE 12 FEET.

5. DESIGNER TO CHECK COMPLIANCE WITH LOCAL CODES AND GRADING PLAN.

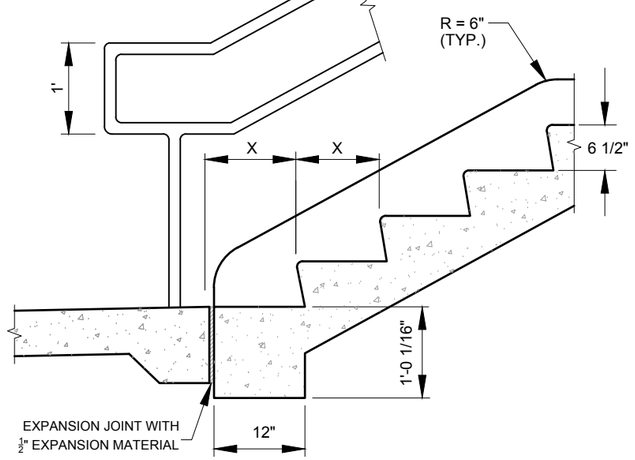
6. CONCRETE SHALL BE CLASS D CONCRETE.

7. ALL HANDRAILS SHALL COMPLY WITH LATEST ADA STANDARDS FOR ACCESSIBLE DESIGN, SECTION 505, AND THE LATEST INTERNATIONAL BUILDING CODE (IBC) REQUIREMENTS.

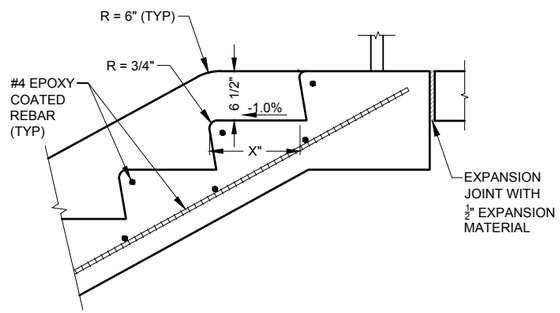
8. ALL HANDRAILS SHALL BE SURFACE MOUNTED.

9. THE WIDTH OF STAIRS AND NUMBER OF RAILINGS SHALL COMPLY WITH IBC.

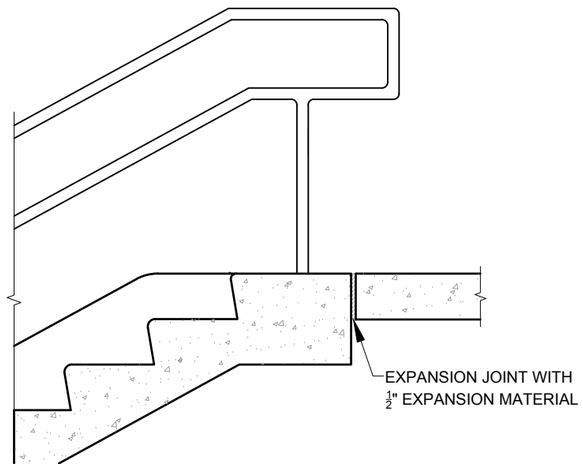
10. USE HEAVY BROOM FINISH FOR CAST-IN-PLACE STAIRS AND ANTI-SLIP COATING FOR TREADS ON PRECAST STAIRS.



1 DETAIL - HANDRAIL @ BOTTOM STAIR
NTS



2 DETAIL - TREAD
NTS



3 DETAIL - HANDRAIL @ TOP STAIR
NTS

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
CONCRETE STAIRS

SHEET REFERENCE NUMBER:
SD-C108
15 OF 68

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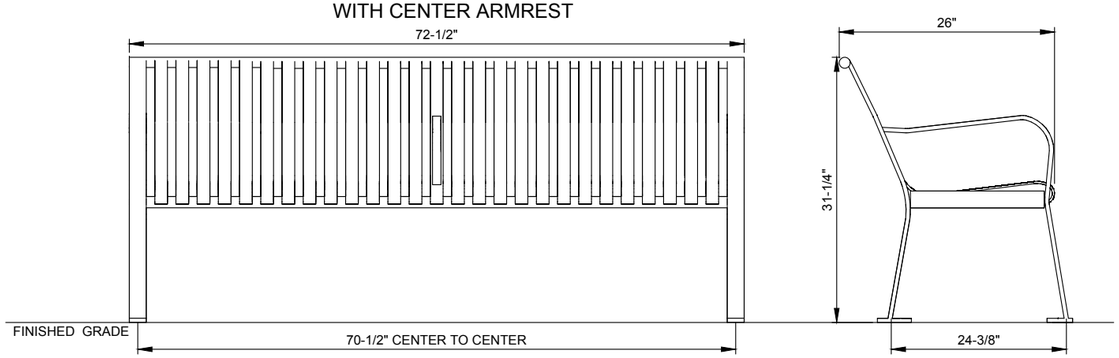
RB-28
STEELSITES™

STANDARD 6 FOOT LENGTH
ALL STEEL CONTOURED BENCH
WITH CENTER ARMREST



FRONT VIEW

SIDE VIEW

NOTES:

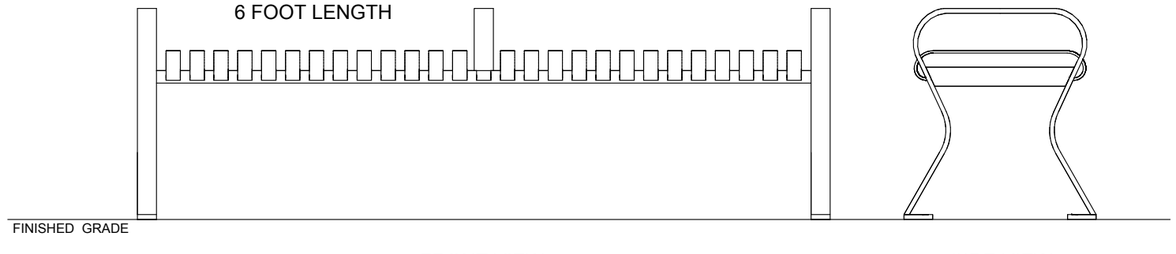
1. BENCH SHALL HAVE THE FOLLWOING FEATURES:
   a. 6-FEET LONG, 17-INCHES HIGH, WITH CENTER ARM REST. L LEGS SHALL BE ± 24-INCHES APART.
   b. 1/2" THICK BY 2" WIDE STEEL END FRAMES.
   c. STEEL STRAPS ARE FORMED FROM SECTIONS OF 1/4" THICK BY 1 1/2" SOLID STEEL BAR.
   d. POLISHED WELDS WHERE THE VERTICAL STEEL STRAPS MEET AT THE TOP OF BENCH SHALL FORM A CONTINUOUS SURFACE FROM THE TOP TUBULAR SECTION TO EACH STRAP.
   e. REVERSE CONTOUR SHAPE OF THE BENCH SEAT AND BACK.
   f. BENCH TO BE FULLY WELDED AT FACTORY. FIELD ASSMEBLY NOT ALLOWED.
   g. ALL FABRICATED STEEL COMPONENTS TO BE SHOT-BLASTED, CHEMICALLY ETCHED AND PHOSPHATED, PREHEATED UP TO 400 DEGREES F AND THEN ELECTROSTATICALLY POWDER COATED.
   h. 8-10 MILS THICK POWDER COATED FINISH.U
   i MECHANICAL POST-POWDER COATING ACRYLIC SEALER TO BE APPLIED OVER EVERY WELD.
   j. MINIMUM WEIGHT 280 LBS.
   k. COLOR TO BE RAL 6009 FIR GREEN.
   l. RECYLCED MATERIAL CONTENT TO BE AT LEAST 50 PERCENT.
   m. BENCH DESIGN SHALL DISCOURAGE SLEEPING.

NOTES CONTINUED:

2. ALL ANCHOR BOLTS, WASHERS, AND LOCK WASHERS ARE TO BE STAINLESS STEEL. ANCHOR BOLTS SHALL BE HILTI 5/8"x3 1/4" SS 304 MC OR EQUIVILENT AND SHALL BE EMBEDDED 2 1/2".
3. IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE.
4. BENCH TO BE INSTALLED ON 6-INCH DEEP CONCRETE SLAB OR APPROVED EQUAL SURFACE.
5. BENCH IS AVAILABLE FROM:
   VICTOR STANLEY INC.
   P.O. DRAWER 330 - DUNKIRK, MD 20754 USA
   TEL (301) 855-8300 - FAX (410) 257-7579
6. ALL STREET FURNITURE SHALL BE BOLTED TO THE WALKWAY OR PLAZA WITH STAINLESS STEEL BOLTS.
7. ALL STREET FURNITURE SHALL BE INSTALLED LEVEL AND PLUMB.
8. STREET FURNITURE MAY NEED TO BE GROUNDED IN THE VICINITY OF LIGHT RAIL AND COMMUTER RAIL TRACKS.
9. 6' OF SPACE SHALL BE PROVIDED BETWEEN FIXED OBJECTS IF FEASIBLE.

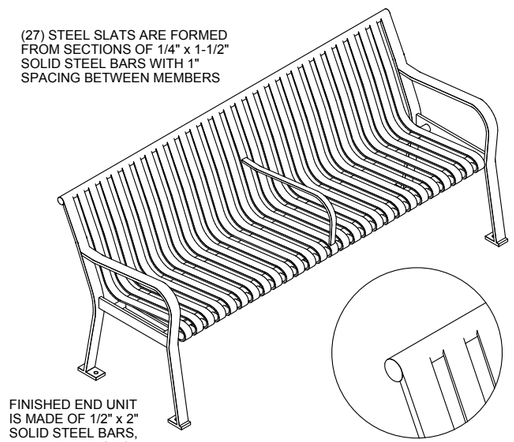
6 FT RB-12
STEELSITES™

ALL STEEL, BACKLESS
FLAT BENCH STANDARD
6 FOOT LENGTH



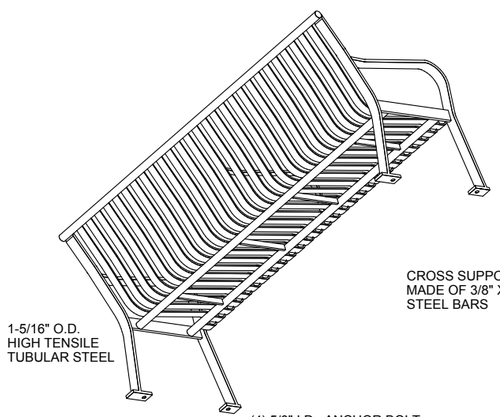
FRONT VIEW

SIDE VIEW

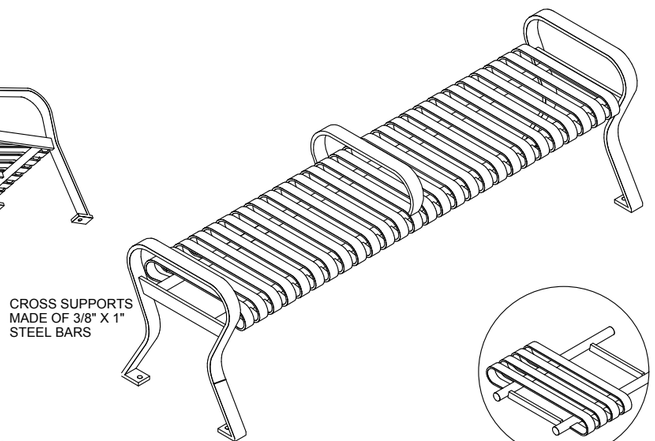


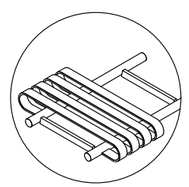
FINISH DETAIL

PERSPECTIVE VIEW



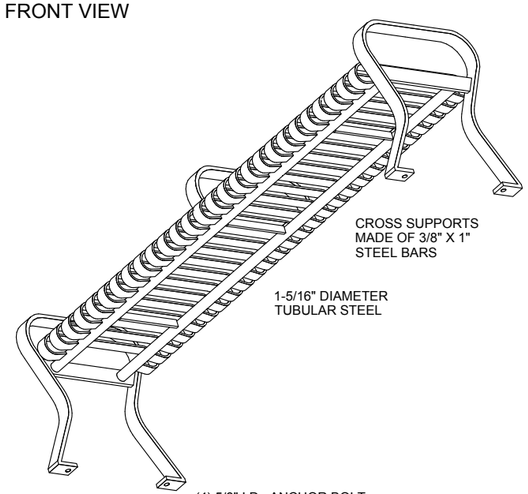
UNDER VIEW





SCROLL DETAIL

PERSPECTIVE VIEW



UNDER VIEW

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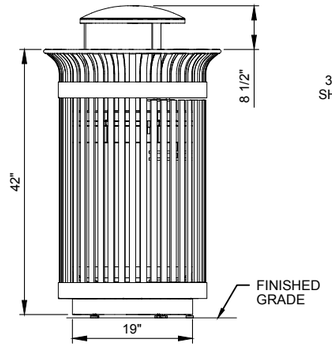
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
STREET FURNITURE - BENCHES

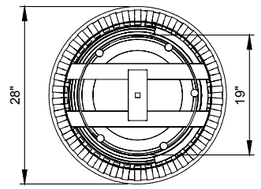
SHEET REFERENCE NUMBER:
SD-C110A
16 OF 68



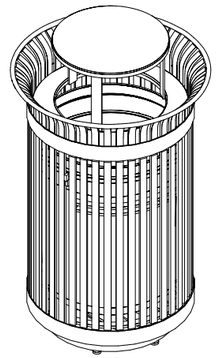
SIDE VIEW

IRONSITES™ SD-42

36 GALLON CAPACITY LITTER RECEPTACLE
SHOWN WITH OPTIONAL S-2 STEEL DOME LID

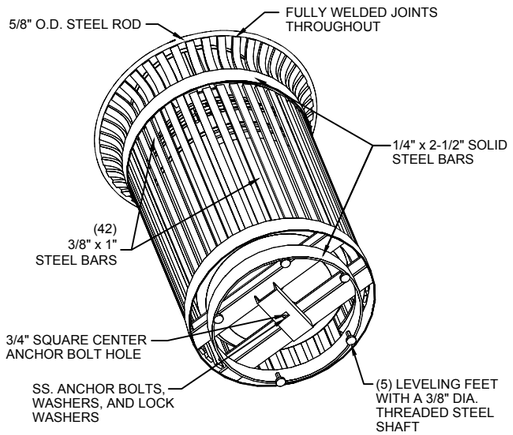


BOTTOM VIEW

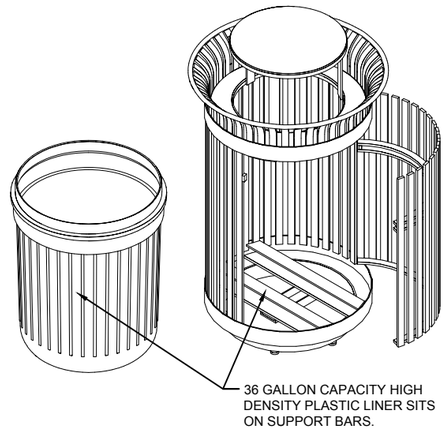


(ANCHOR BOLT PROVIDED BY OTHERS)

PERSPECTIVE (CLOSED)



UNDER VIEW



PERSPECTIVE (OPEN)

MULTIPLE VIEWS - LITTER RECEPTACLE

SCALE: NTS

NOTES:

STREET FURNITURE

1. ALL STREET FURNITURE SHALL BE BOLTED TO THE WALKWAY OR PLAZA WITH STAINLESS STEEL BOLTS.
2. ALL STREET FURNITURE SHALL BE INSTALLED LEVEL AND PLUMB.
3. STREET FURNITURE MAY NEED TO BE GROUNDED IN THE VICINITY OF THE LIGHT RAIL AND COMMUTER RAIL TRACKS.
4. 6' OF SPACE SHALL BE PROVIDED BETWEEN FIXED OBJECTS IF FEASIBLE.

LITTER RECEPTACLE NOTES:

1. REFER TO LATEST VERSION OF RTD SAFETY & SECURITY CRITERIA FOR THIS ITEM.
2. ALL DIMENSIONS ARE IN INCHES.
3. STANDARD COLOR SHALL BE RAL 6009 FIR GREEN RECPETACLE SHALL HAVE SIDE DOOR PROVIDED WITH A LATCH.
4. THE RECEPTACLE LID SHALL BE RIVETED ON TO THE FRAME.
5. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED AND ELECTROSTATICALLY POWDER-COATED WITH TGIC POLYESTER POWDER COATINGS. 8-10 MILS THICK POWDER COATED FINISH.
4. DOOR HINGES TO BE COMPOSED OF EMBEDDED PRECISION STAINLESS-STEEL PIVOT PINS AND OIL IMPREGNATED BRONZE BUSHINGS.
5. MECHANICAL POST-POWDER COATING ACRYLIC SEALER TO BE APPLIED OVER EVERY WELD.
6. WEIGHT: 310 LBS.
7. NO ASSEMBLY REQUIRED.
8. DESIGNER TO DETERMINE TYPE OF RECEPTACLE AT A PARTICULAR LOCATION.
9. AVAILABLE FROM:
   VICTOR STANLEY, INC.
   P.O. DRAWER 330
   DUNKIRK, MARYLAND 20754 USA
   1.800.368.2573 (USA & CANADA)
   TEL: 301.855.8300
   FAX: 410.257.7579
   http://www.victorstanley.com OR http://www.trash-cans.com
10. DOOR TO BE SECURED BY KEYLESS INTERNAL LATCH.

VIEW - SAFETY LITTER RECEPTACLE

SCALE: NTS

SAFETY RECEPTACLE NOTES:

1. REFER TO LATEST VERSION OF RTD SAFETY & SECURITY CRITERIA FOR THIS ITEM
2. SUCURR 35 GALLON GUARDIAN SERIES HS350W-CS LITTER RECEPTACLE FRAME COLOR BLACK OR APPROVED EQUAL.
3. ADA COMPLIANT.
4. HAS SIDE OPENING DOOR AND RIGIND PLASTIC LINER.
5. PANELS ARE AVAILABLE IN MAKROLON CLEAR POLYCARBONATE. TWO THICKNESSES AVAILABLE: .093 AND 0.236.
6. ALL LATCHES, HINGES, AND HARDWARE ARE MADE OFSTAINLESS OR ZINC PLATED STEEL.
7. FRAMES TO BE 14 GAUGE GALVANEALED STEEL.
8. FINISHED INSIDE AND OUTSIDE WITH POWDER COATING.
10. AVAILABLE FROM:
    VICTOR STANLEY, INC.
    P.O. DRAWER 330
    DUNKIRK, MARYLAND 20754 USA
    1.800.368.2573 (USA & CANADA)
    TEL: 301.855.8300
    FAX: 410.257.7579
    http://www.victorstanley.com OR http://www.trash-cans.com
11. DOOR TO BE SECURED BY KEYLESS INTERNAL LATCH.

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REGIONAL TRANSPORTATION DISTRICT

CIVIL
STREET FURNITURE - TRASH RECEPTACLES

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17 OF 68

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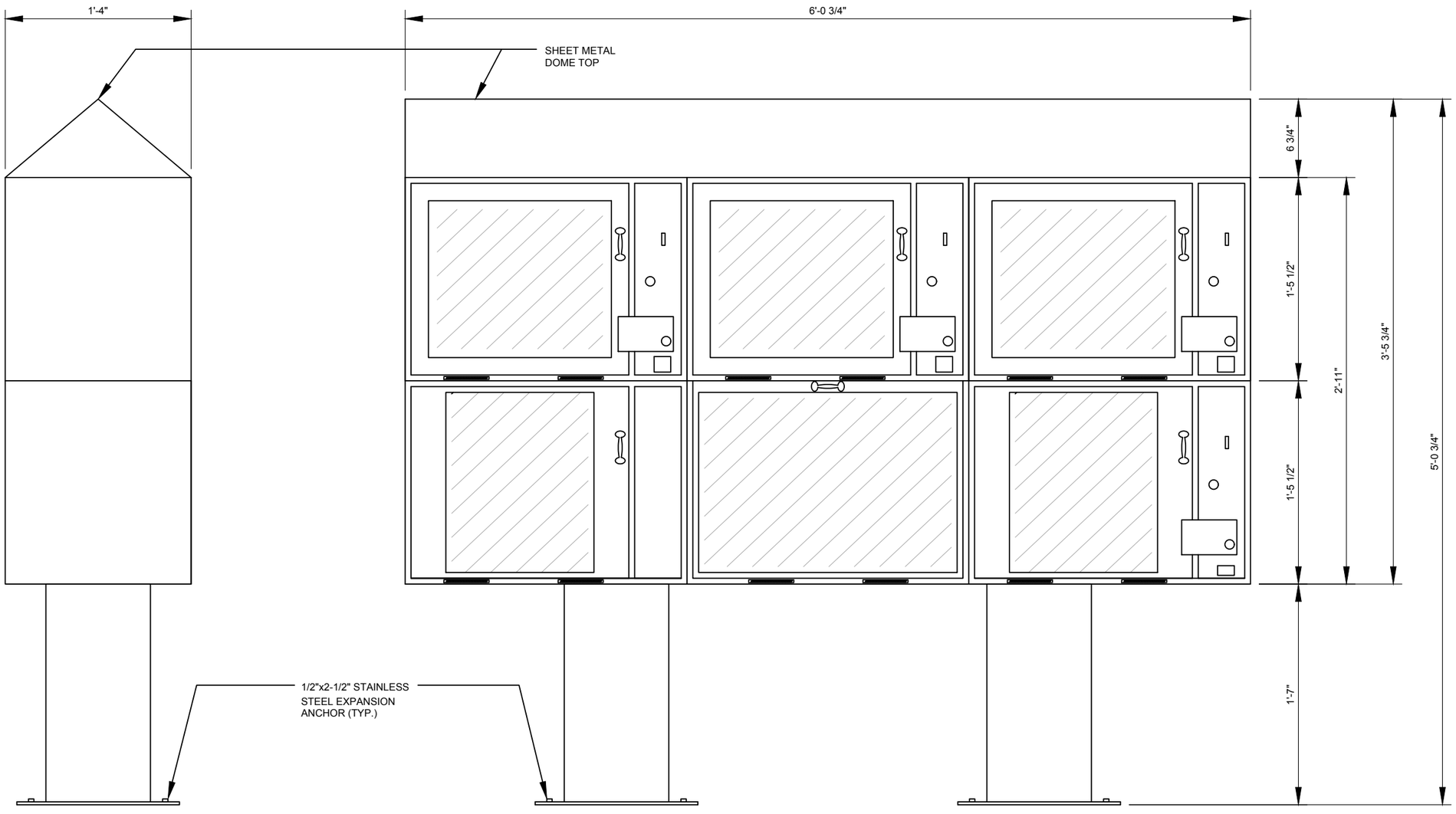

SIDE ELEVATION

FRONT ELEVATION

NOTES:

1. NEWSPAPER AND PERIODICAL STORAGE SHALL BE CONSOLIDATED IN A SINGLE DISPENSING AND STORAGE SYSTEM AT A LOCATION.

2. PERIODICAL STORAGE SYSTEM SHALL HAVE A DESIGN THAT PREVENTS SNOW ACCUMULATION.

3. THE NEWSPAPER STORAGE SYSTEM SHALL BE MODULAR, AND HAVE COMPARTMENTS.

4. COMPARTMENTS HOLDING NEWSPAPERS SHALL HAVE A LOCKING OPTION.

5. COMPARTMENTS HOLDING FREE PERIODICALS SHALL HAVE A LATCHING MECHANISM.

6. RTD FACILITIES MANAGEMENT COORDINATES WITH VENDORS TO DETERMINE HOW MANY COMPARTMENTS ARE NEEDED AT A PARTICULAR LOCATION. CONTACT 303-299-2277.

7. ALL FABRICATED COMPONENTS SHALL BE STEEL SHOT BLASTED, ETCHED PHOSPHATIZED AND ELECTROSTATICALLY POWDER COATED WITH TGIC POLYYESTER POWDER COATING.

8. NEWSPAPER RACK IS AVAILABLE FROM: RAK SYSTEMS, INC. 5500 PLANTATION RD. THEODORE, AL 36582 U.S.A. TOLL FREE: (800) 467-1725 LOCAL: (251) 653-4080 FAX: (251) 653-1014

9. CONCTACT RTD FACILITY MAINTENANCE FOR NUMBER PUBLICATION CONDOS.

10. SOME PUBLICATIONS ARE NOT PRECLUDED FROM USING THEIR OWN CONDOS.

ELEVATION VIEWS - NEWSPAPER "RAK" SYSTEMS

SCALE: NTS

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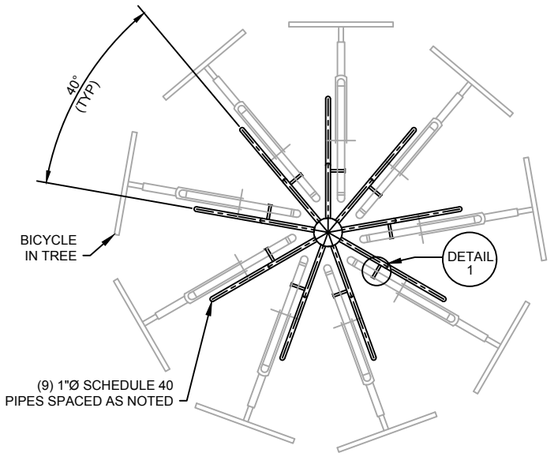
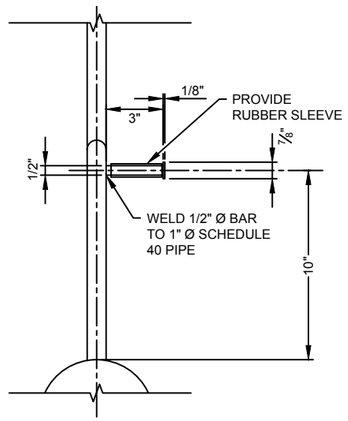
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
STREET FURNITURE - NEWS PAPER RACK

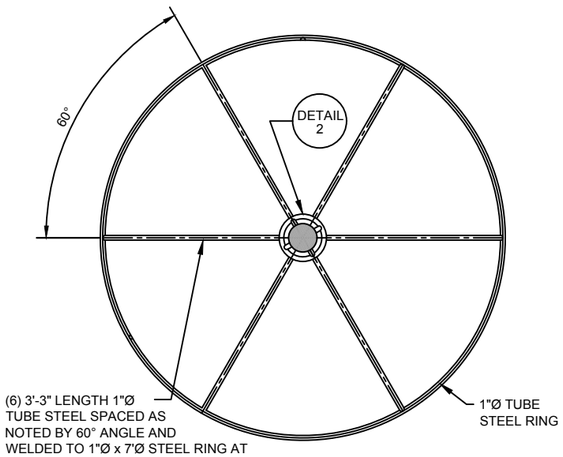
SHEET REFERENCE NUMBER:
SD-C110C
18 OF 68



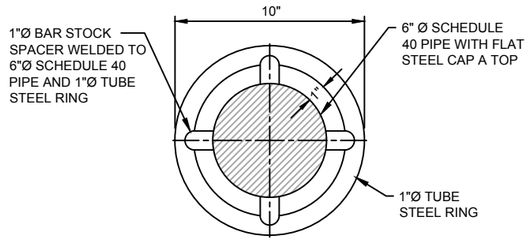
PLAN - BIKE TREE UNDER CANOPY
Scale: 3/4" = 1'-0"



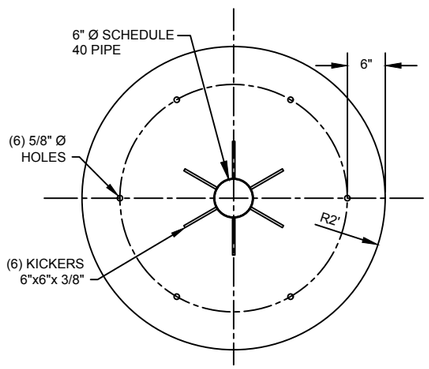
1 DETAIL - BIKE HANGING BAR
Scale: 3" = 1'-0"



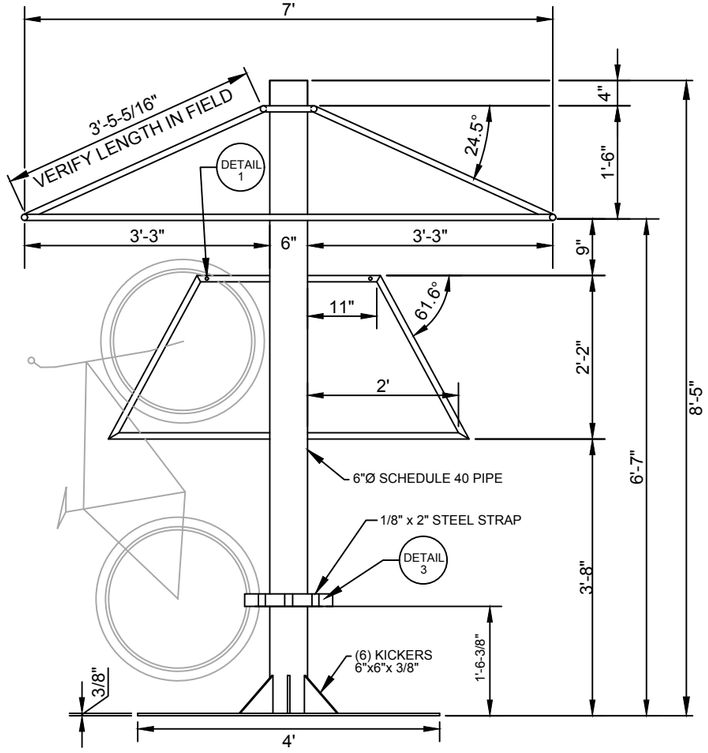
PLAN - CANOPY
Scale: 3/4" = 1'-0"



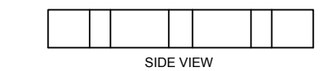
2 DETAIL - CANOPY TOP STEEL RING SUPPORT
Scale: 3" = 1'-0"



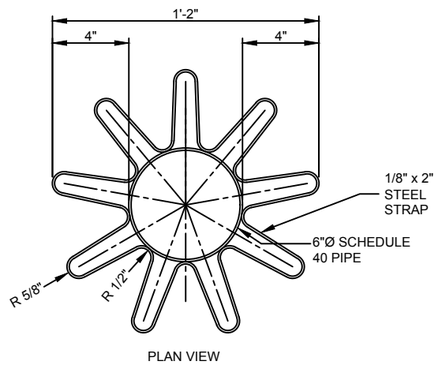
PLAN - BASE PLATE BOLT LAYOUT
Scale: 1" = 1'-0"



ELEVATION - BIKE TREE
Scale: 1" = 1'-0"



SIDE VIEW



PLAN VIEW

3 DETAIL - REAR TIRE STABILIZER
Scale: 3" = 1'-0"

NOTES:

1. PATENT NUMBER TO BE STAMPED INTO BASE PLATE (D621,751).
2. FINISHED WITH POWDER COATING, COLOR MAY VARY.
3. ANCHORS SHALL BE ¾" x 3" STAINLESS STEEL.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
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CIVIL
STREET FURNITURE - BIKE TREE PLAN

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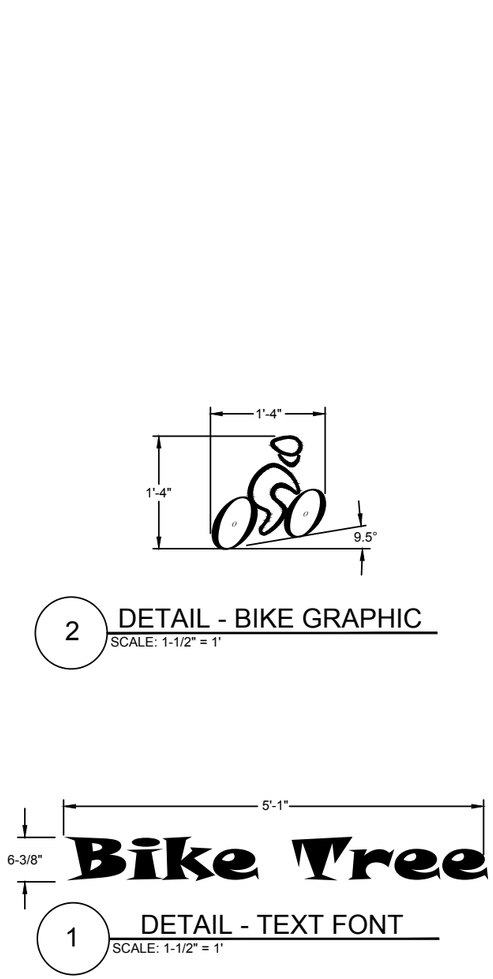
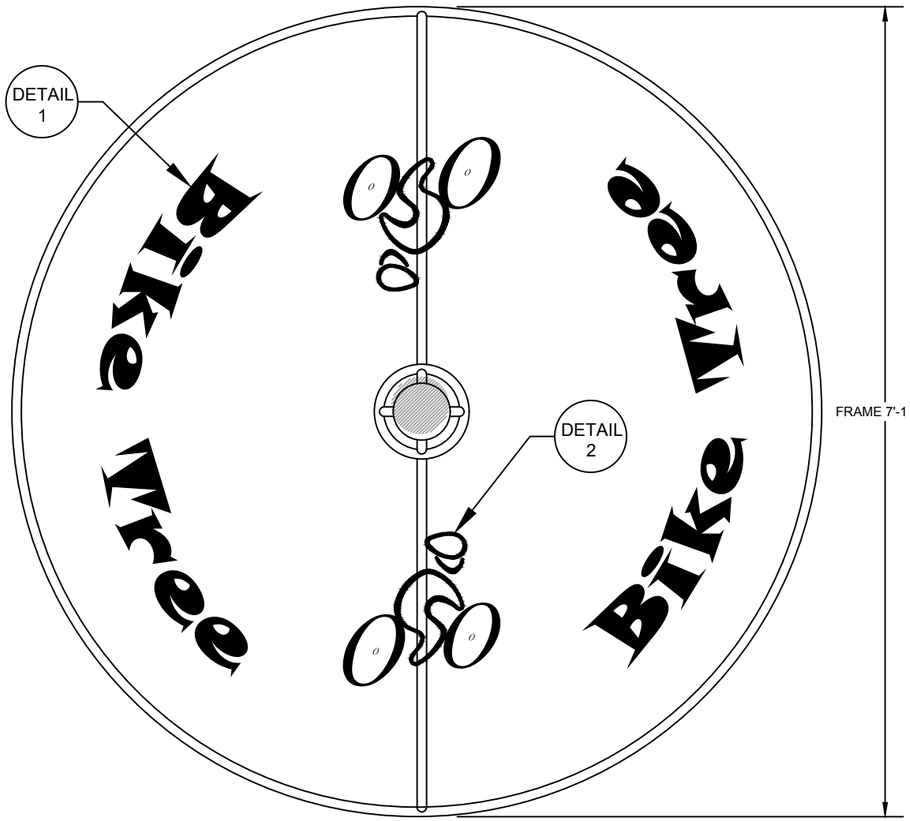
NOTES:
1. FABRIC: SUNBRELLA, BUTTER CUP, 4635
2. FONT: SNAP ITC.
3. LACING: BLACK.
4. LACING SPACING FROM BARS: 1" (TOP & BOTTOM BARS).
5. SEAMS: CLEAR STITCHING.

2 DETAIL - BIKE GRAPHIC
SCALE: 1-1/2" = 1'



1 DETAIL - TEXT FONT
SCALE: 1-1/2" = 1'



PLAN - CANOPY AWNING
SCALE: 1-1/2" = 1' SEE NOTES

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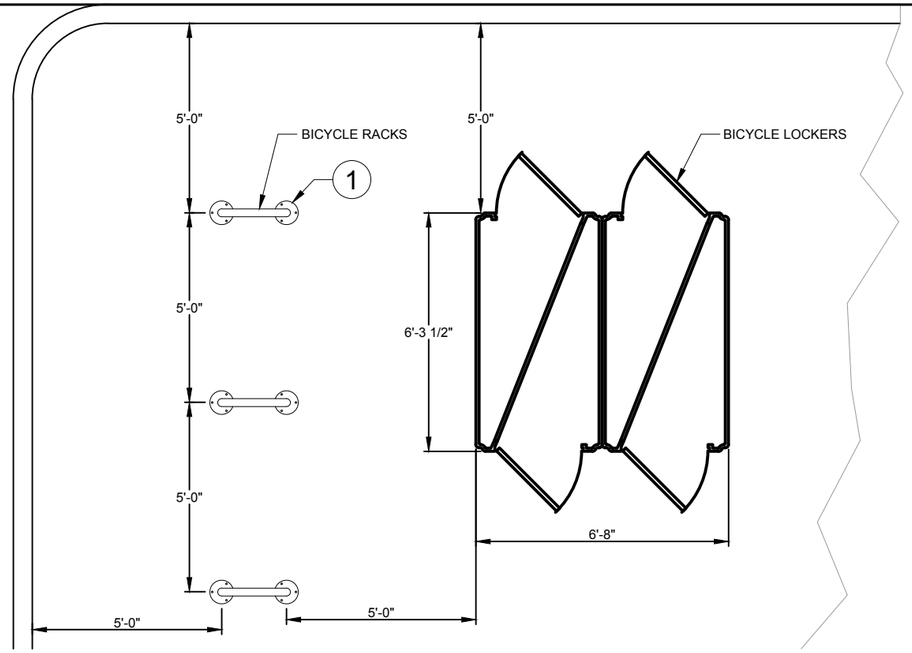
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

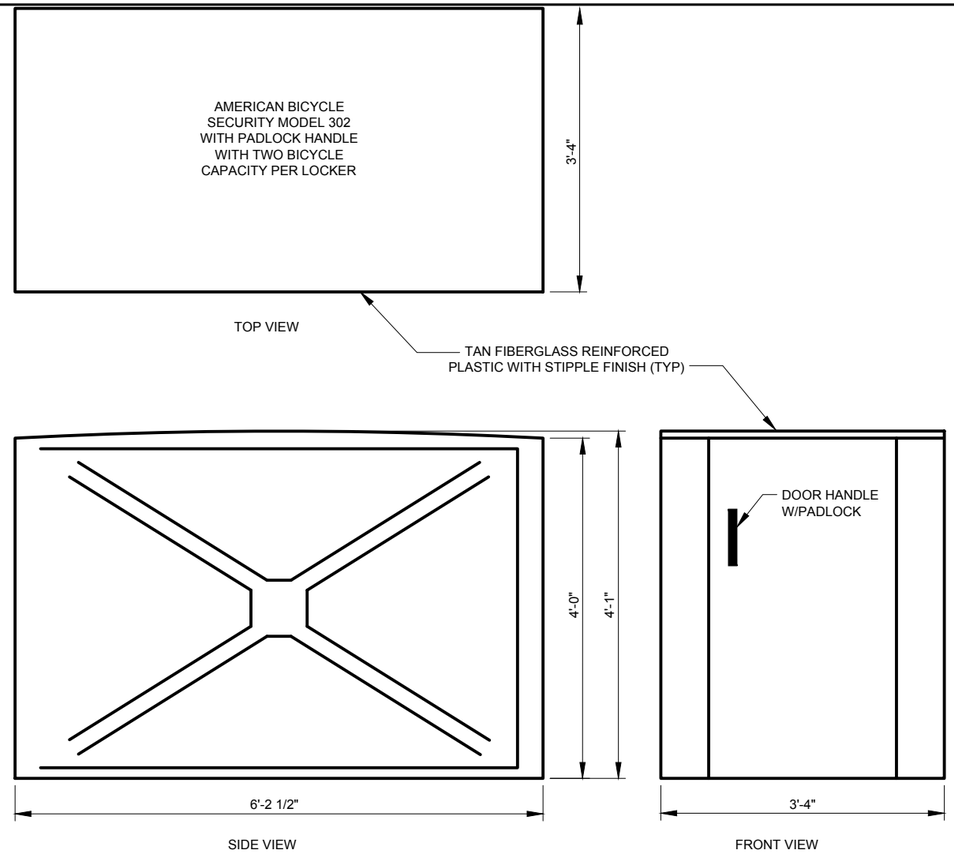
CIVIL
STREET FURNITURE - BIKE TREE CANOPY

SHEET REFERENCE NUMBER:
SD-C110E
20 OF 68



PLAN - BICYCLE PARKING AND STORAGE LOCKERS

1/2" = 1'-0"



ELEVATIONS - BICYCLE STORAGE LOCKERS

1" = 1'-0"

NOTES:

1. BIKE LOCKERS SHALL BE ONE PIECE, NO ASSEMBLY, COMPOSITE BIKE LOCKER WITH A FIBER-REINFORCED POLYMER (FRP) COMPOSITE ENCLOSURE.

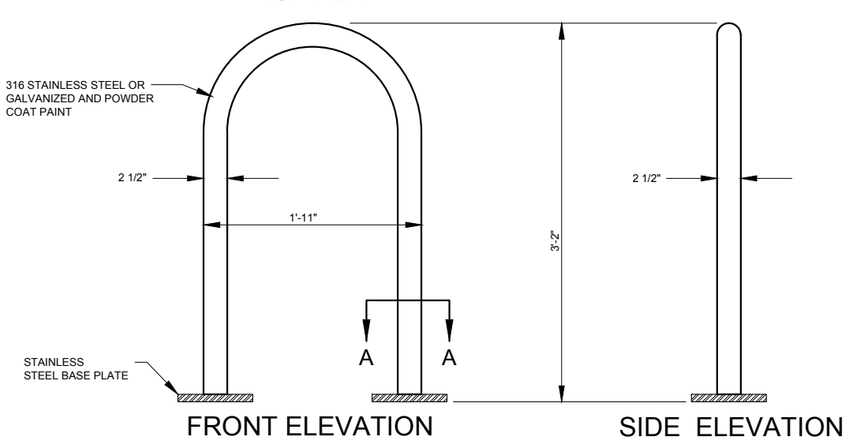
2. BIKE LOCKERS SHALL BE A SINGLE RECTANGULAR UNIT THAT CONTAINS TWO TRIANGULAR BAYS, EACH ACCESSED FROM ONE END OF THE RECTANGULAR BOX.

3. PADLOCK HANDLE WILL ACCOMMODATE HIGH SECURITY PADLOCKS.

4. DOOR HINGES WILL NOT RUST, ALL FASTENERS ON LOCKING SYSTEM SHALL BE ZINC PLATED OR BETTER, LOCKER SHALL ANCHOR IN ALL FOUR CORNERS THROUGH BASE FLANGES USING EXPANSION ANCHORS.

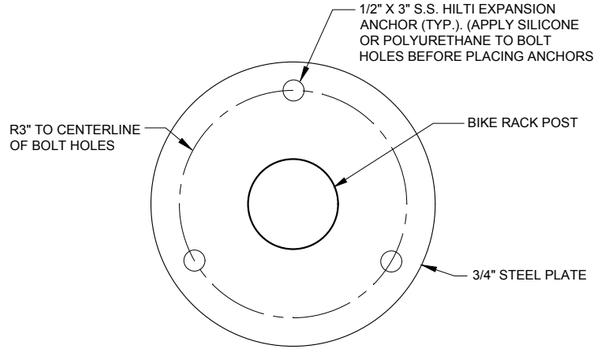
5. BIKE LOCKERS SHALL BE EQUAL TO OR BETTER THAN THE AMERICAN BICYCLES SECURITY COMPANY'S BIKE SHELL MODEL 302-ECO.

6. AVAILABLE FROM LANDSCAPE FORMS: WEST COAST SALES TEAM, LANDSCAPE FORMS INC. OFFICE: 1-800-441-1945 X 1338.



1 DETAIL - BICYCLE RACK ("U RACK")

1-1/2" = 1'-0"



AA SECTION - BICYCLE RACK STEEL BASE PLATE

1/2" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
STREET FURNITURE - BIKE PARKING & STORAGE

SHEET REFERENCE NUMBER:
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21 OF 68

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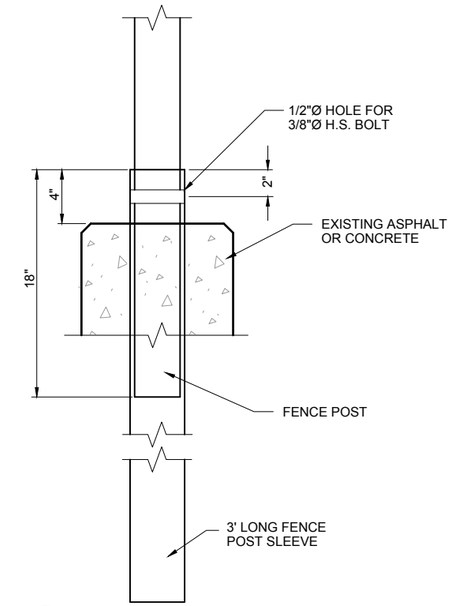


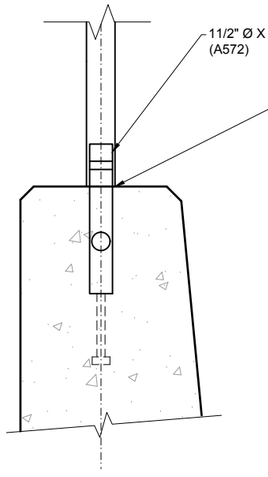
1 FENCE POST SLEEVE
NTS

GENERAL NOTES:

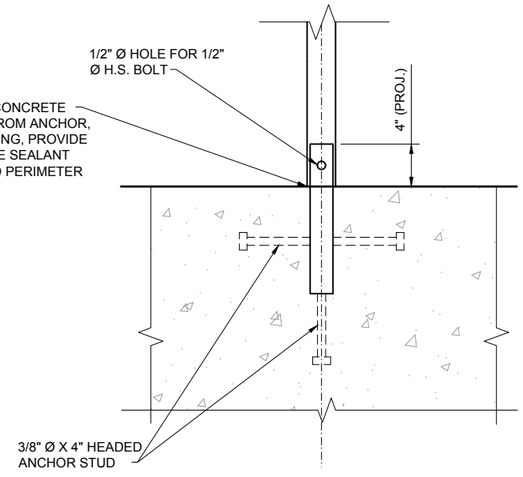
1. "H" (HEIGHT OF FABRIC) SHALL BE 72". CHAIN LINK FABRIC SHALL BE 2" MESH NO. 9 GAGE GALVANIZED WIRE SECURELY FASTENED TO TENSION WIRE, LINE POSTS, RAILS, BRACES AND STRETCHER BARS SPACED AS SHOWN HEREON. WIRE FASTENERS AND TIE CLIPS SHALL BE NO. 11 GAGE (W&M) GALVANIZED STEEL WIRE OR NO. 7 GAGE (B&S) ALUMINUM WIRE, AND HOG RINGS SHALL BE NO. 9 GAGE, ALL IN CONFORMANCE WITH ASTM F626.
2. FENCE SHALL BE CONSTRUCTED WITH ROUND PIPE COMPONENTS.
3. FENCE POSTS INSTALLED THRU CONCRETE OR ASPHALT PAVEMENT SHALL HAVE SLEEVES IN ACCORDANCE WITH DETAIL 1.
4. INSTALLED FENCE POST SLEEVES AND ANCHORS SHALL BE PLUMB AND FREE FROM MOVEMENT.
5. FENCE POST SLEEVES, CORING AND ANCHORS SHALL BE CONSIDERED INCIDENTAL TO CHAIN LINK FENCE AND WILL NOT BE PAID FOR SEPARATELY.

CONSTRUCTION NOTES:

1. LAYOUT OF POST LOCATIONS SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE INTENT OF THE CONTRACT PLAN. ALL SUCH PRIOR TO THE ERECTION OF THE FENCE.
2. SUBMIT LOCATIONS OF GROUND RODS FOR REVIEW AND APPROVAL BY THE ENGINEER. PROVIDE A MINIMUM OF THREE (3) GROUND RODS AT EACH LOCATION.
3. ATTACH FABRIC TO ALL FENCE & GATE STRUCTURES AT 12" INTERVALS VERTICALLY & AT 20" HORIZONTALLY.

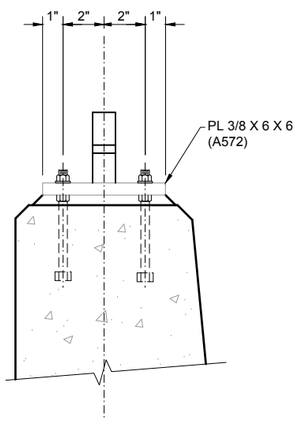


SECTION



ELEVATION

2 ANCHORAGE DETAIL
NTS



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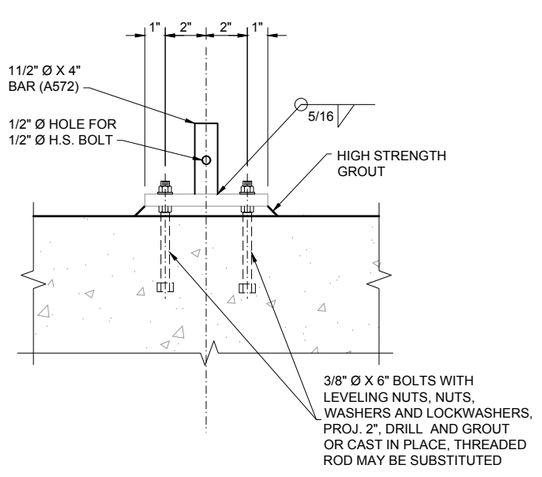

ELEVATION

3 ALTERNATE ANCHORAGE DETAIL
NTS

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
CHAIN LINK FENCE ANCHORAGE DETAILS

SHEET REFERENCE NUMBER:
SD-C111C
22 OF 68

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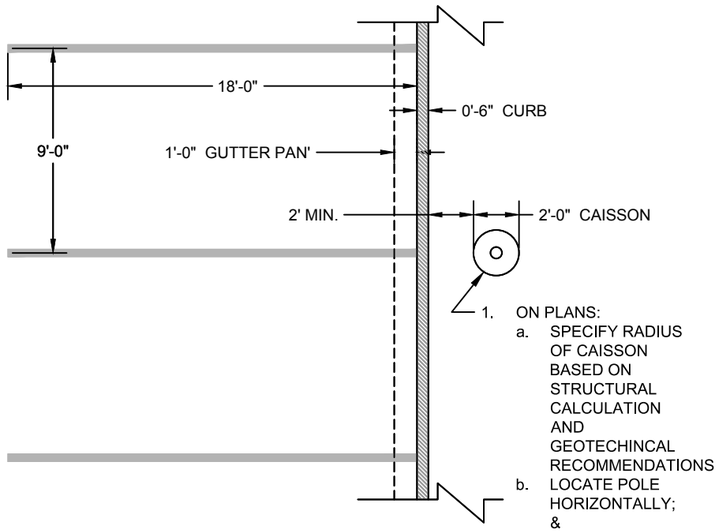
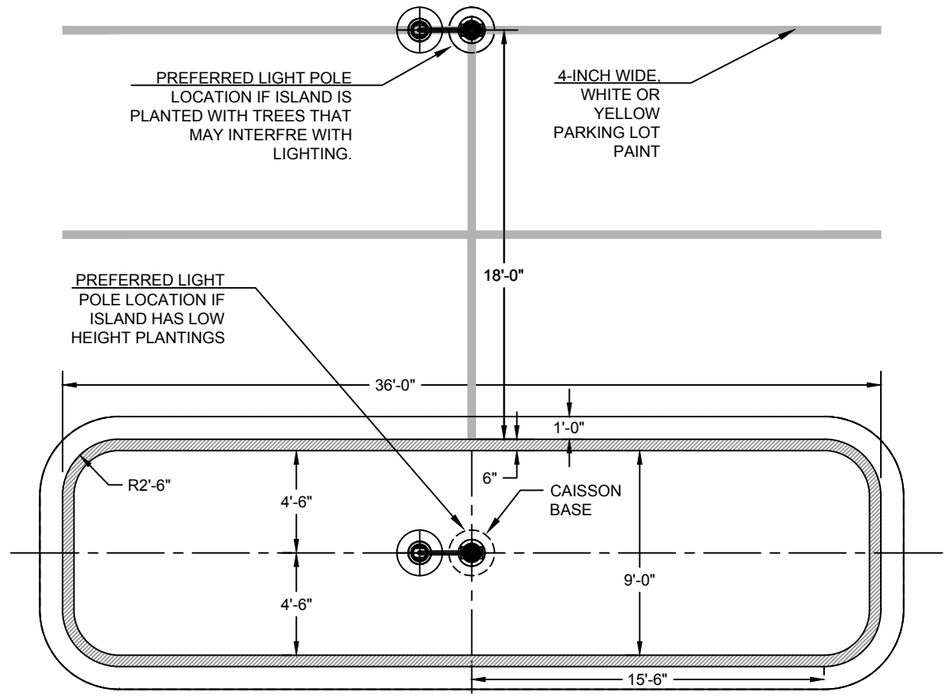


1 TYPICAL POLE PLACEMENT BEHIND CURB
1"=40'



2 TYPICAL POLE PLACEMENT AT ISLANDS
1"=40'

1. LIGHTING PLANS SHALL SHOW THE FOLLOWING INFORMATION:
   A. SITE PLAN ILLUSTRATING PROPERTY LINE, CIVIL BASE ITEMS, STRUCTURES, LANDSCAPE TREES, PROPOSED AND EXISTING LIGHTING FIXTURES, SECURITY CAMERAS, AND EMERGENCY TELEPHONES, POWER SOURCE AND ELECTRICAL CONVEYANCE EQUIPMENT AND WIRING.
   B. SITE PLAN ILLUSTRATING REFERENCE AREAS AS DEFINED BY RTD LIGHTING CRITERIA (STATION PLATFORM/TRANSITION PLAZA/PEDESTRIAN ACCESS/SURFACE PARKING/STRUCTURED PARKING/SPECIALTY AREAS).
   C. LUMINAIRE SCHEDULE INDICATING TYPE AND NUMBER OF EACH LUMINAIRE LISTING MANUFACTURER/MODEL NUMBER/LAMP SOURCE/LUMEN OUTPUT AND WATTAGE.
   D. PRODUCT CUT SHEETS WITH COLOR RENDERING INDEX AND CORRELATED COLOR TEMPERATURE.
   E. ILLUSTRATION OF PROPOSED FIXTURES.
   F. PHOTOMETRIC IN FC VALUES ILLUSTRATED AT AN APPROPRIATE GRID SPACING (10'X10' FOR EXTERIOR?). INCLUDE LIGHTING VALUES AT THE PROPERTY LINE AND LIGHT CONTRIBUTIONS FROM ALL SOURCES (STREET LIGHTS, BUILDINGS, WALL MOUNTED, SIGN ILLUMINATION,…).
   G. PHOTOMETRIC INFORMATION TO SHOW COMPLIANCE TO RTD UNIFORMITY RATIO STANDARDS INCLUDING AVERAGE, AVG/MIN, AND MAX/MIN.
   H. LIGHTING HOURS.
   I. POLE AND FOUNDATION DETAILS/ELEVATIONS (SCALED AND DIMENSIONED).
   J. JURISDICTIONAL REQUIREMENTS AND PROPOSED COMPLIANCE CHART/STATEMENT.

3 LIGHTING PLAN REQUIREMENTS
NOT TO SCALE

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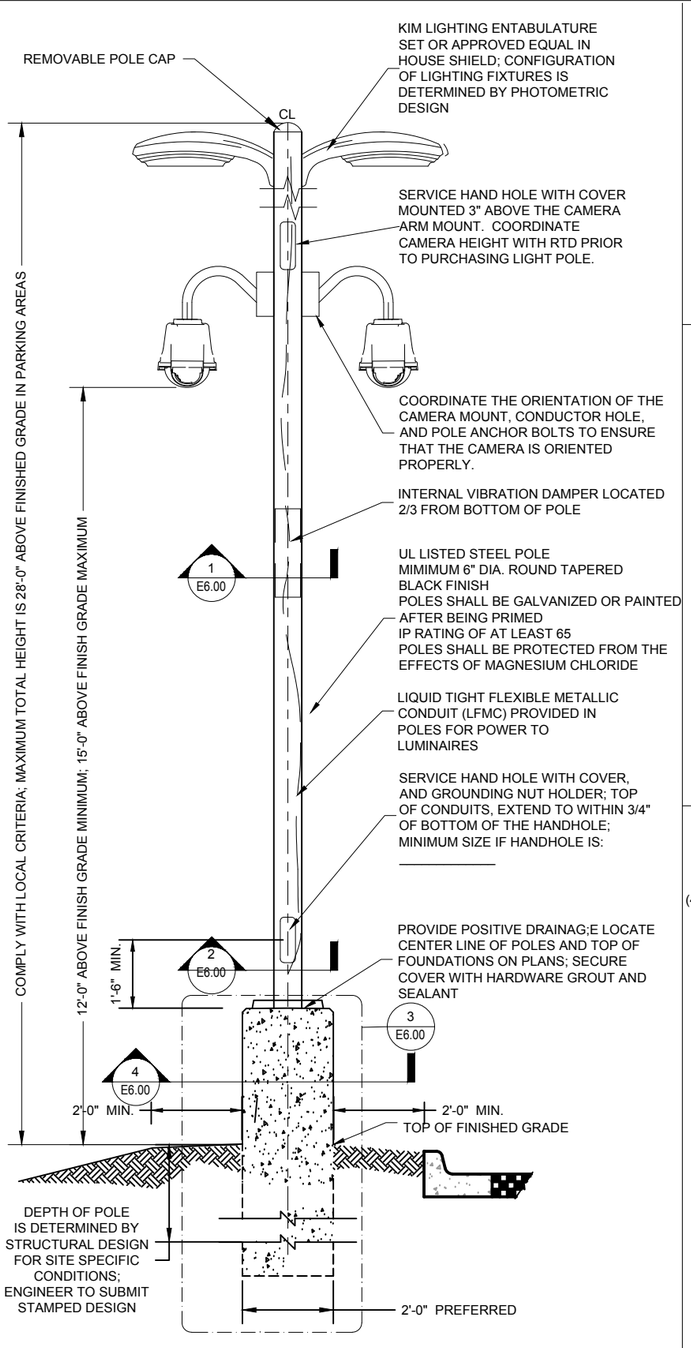
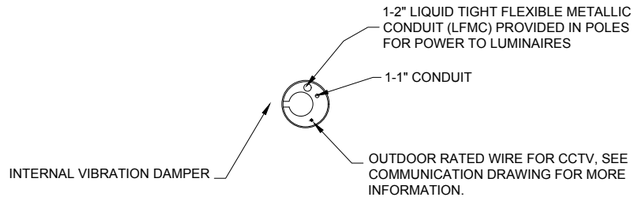
REGIONAL TRANSPORTATION DISTRICT

CIVIL
LIGHT POLE PLACEMENT AND PLAN REQUIREMENTS

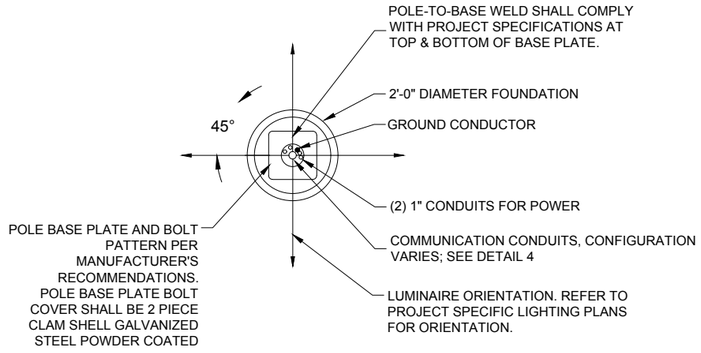
SHEET REFERENCE NUMBER:
SD-C112A
23 OF 68



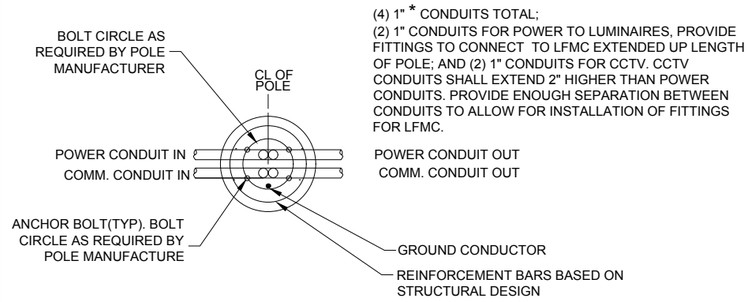
LIGHT POLE IN PARKING AREA
SCALE: 1"=1'-0"



1 POLE SECTION AT INTERNAL VIBRATION DAMPER
SCALE: 1"=2'-0"

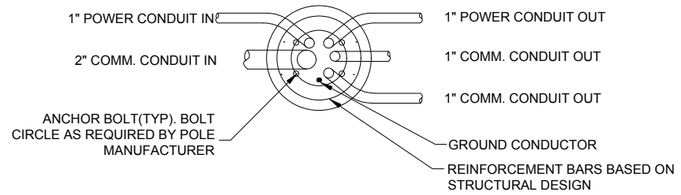


2 POLE SECTION DETAIL
NTS



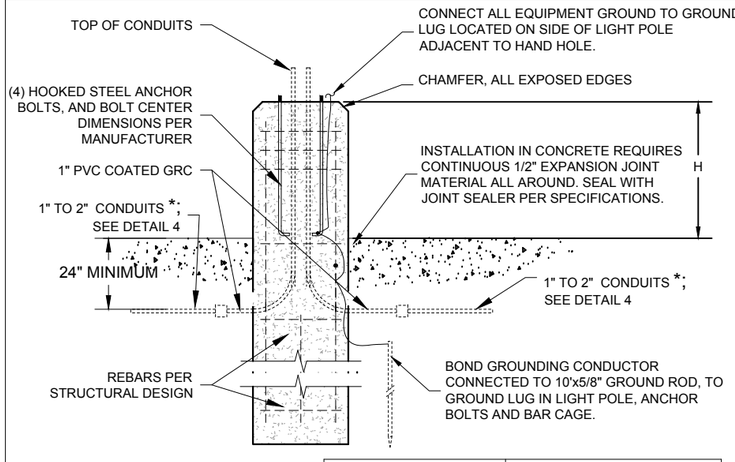
* ALL COMMUNICATION CONDUITS SHALL BE DAISY CHAINED.
IF THE DISTANCE OF THE FURTHEST POLE WITH CCTV IS GREATER THAN 300-FEET, A TWO-INCH CONDUIT SHALL BE USED BETWEEN THE POLES.

TYPICAL SECTION WITH 2-ONE-INCH INCOMING COMMUNICATION CONDUITS



SECTION WITH ONE 2-INCH INCOMING COMMUNICATION CONDUIT

4 POLE BASE SECTION DETAIL
NTS



SITE CONDITION	H IN FEET
PARKING LOT	6" MINIMUM; 3'-0" MAXIMUM
WITHIN 4-FEET OF CURB	6" MINIMUM; 3'-0" MAXIMUM
PAVED PLAZAS	6"
LANDSCAPED AREAS	6"

3 POLE BASE INSTALLATION
NTS

1. LIGHT POLES MAY HAVE SECURITY CAMERAS INSTALLED ON THE SAME POLE, OR HAVE WIRING INSTALLED TO ENABLE THE FUTURE INSTALLATION OF CAMERAS. CHECK WITH RTD SAFETY AND SECURITY DEPARTMENT FOR SECURITY CAMERA COVERAGE, AND COORDINATE WITH LIGHTING DESIGN..
2. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 80 PVC.
3. IDENTIFY PATHS OF UNDERGROUND ELECTRICAL LINES WITH 6" WIDE BY 4 MILS THICK BRIGHT COLORED VINYL TAPE. TAPE SHALL HAVE EMBEDDED CONTINUOUS METALLIC STRIP OR CORE AND HAVE PRINTED LEGEND INDICATING TYPE OF UNDERGROUND LINE. INSTALL TAPE 6" - 12" BELOW FINISHED GRADE.
4. PROVIDE PULL WIRES IN ALL EMPTY CONDUITS. USE #14 AWG ZINC COATED STEEL OR MONO-FILAMENT PLASTIC LINE HAVING NOT LESS THAN 200-LB TENSILE STRENGTH. LEAVE NOT LESS THAN 12" OF SLACK AT EACH END OF PULL WIRE.
5. INSTALL LUMINAIRES AND OTHER ELECTRICAL EQUIPMENT INCLUDING CONTROLS AND COMMUNICATION SYSTEMS PER MANUFACTURER'S INSTRUCTIONS.
6. ALL STRUCTURAL FASTENERS SHALL BE GALVANIZED HIGH STRENGTH CARBON STEEL. ALL NON-STRUCTURAL FASTENERS SHALL BE GALVANIZED OR ZINC PLATED CARBON STEEL OR STAINLESS STEEL
7. ANCHOR BOLTS SHALL BE GALVANIZED A MINIMUM OF 12-INCHES AT THE EXPOSED END. ANCHOR BOLTS SHALL BE CUT TO SHOW 2-3 THREADS ABOVE NUT.

5 NOTES
NTS

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BUS INFRASTRUCTURE STANDARD DRAWINGS
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CIVIL
LIGHT POLE DETAILS AND CONDUITS

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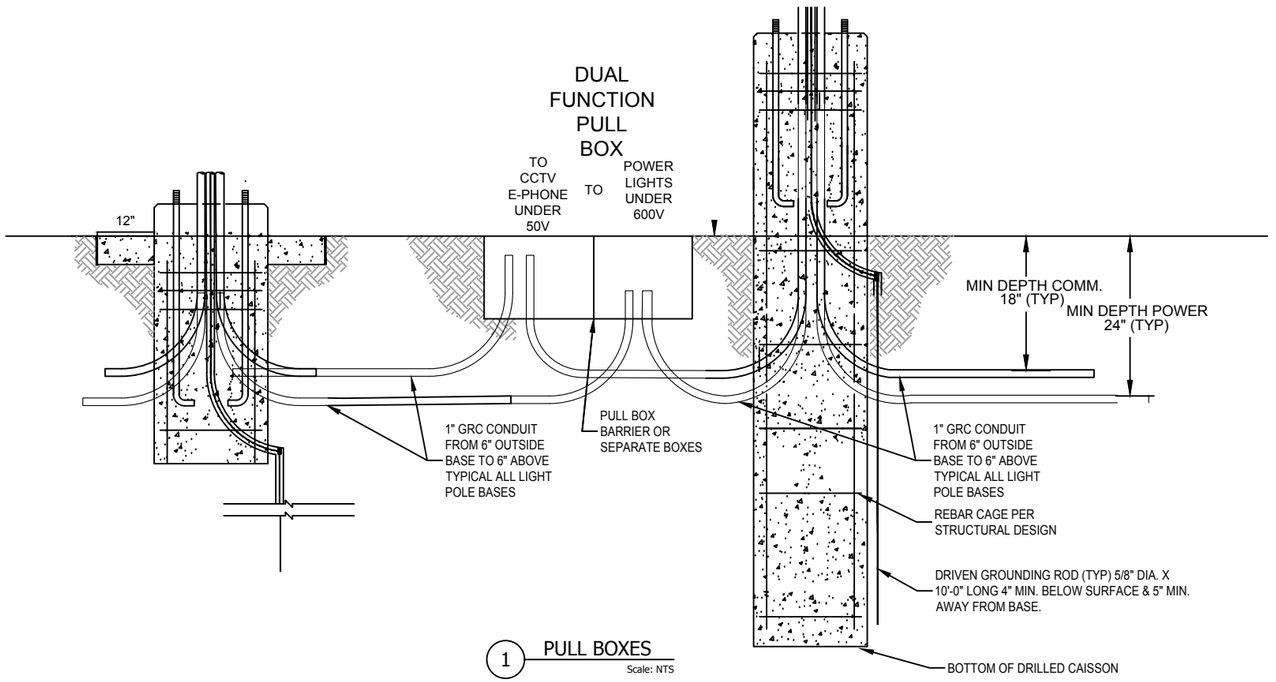
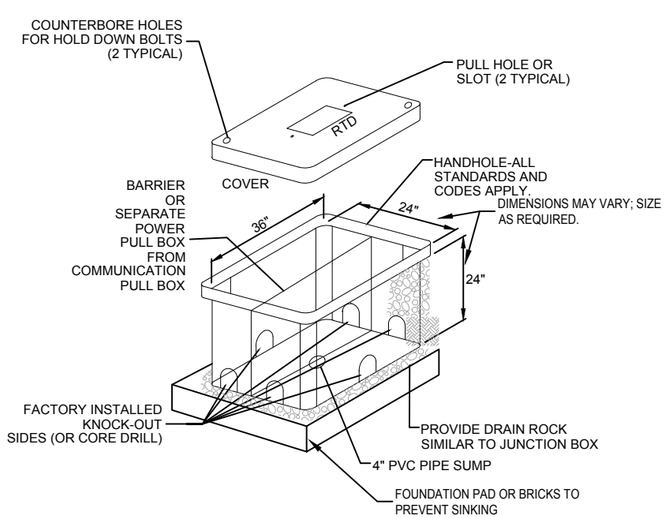


1 PULL BOXES
Scale: NTS

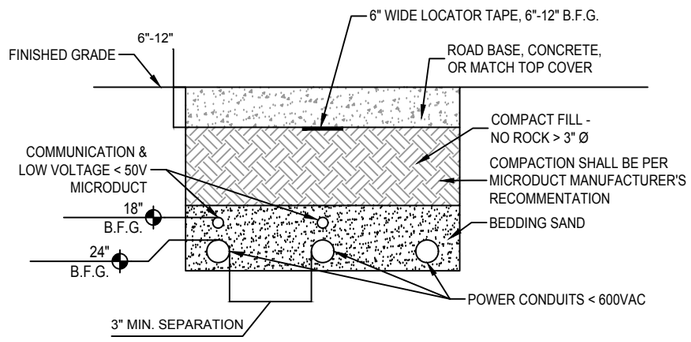
NOTES:

1. CONDUIT LOCATION SHALL BE SHOWN IN PLAN VIEW ON BOTH CIVIL AND ELECTRICAL PLANS.
2. REFER TO THE RTD BUS INFRASTRUCTURE DESIGN GUIDELINES & CRITERIA FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



AVOID LOCATING PULL BOXES IN VEHICLE TRAVEL AREAS. IF A PULL BOX NEEDS TO BE LOCATED IN A TRAVEL AREA, THE PULL-BOX COVERS SHALL BE RATED FOR VEHICLE TRAFFIC.

2 PULL BOX DETAIL
Scale: NTS



3 TRENCH DETAIL FOR POWER AND COMMUNICATIONS
Scale: NTS

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
PULL BOXES AND CONDUITS

SHEET REFERENCE NUMBER:
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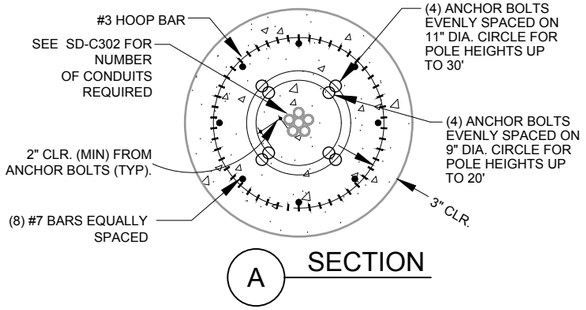
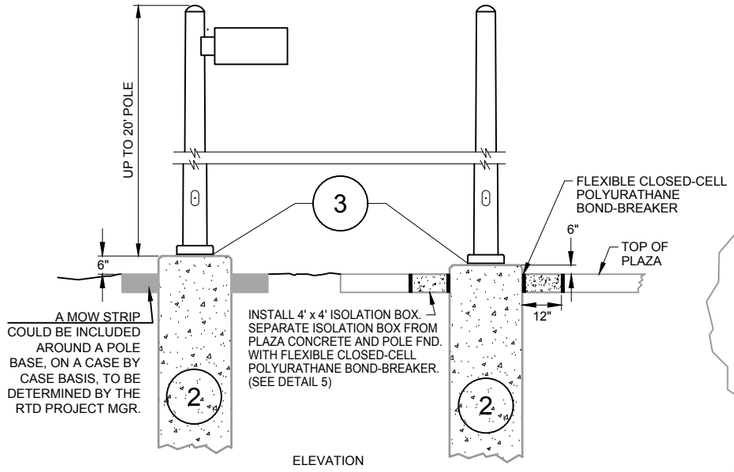
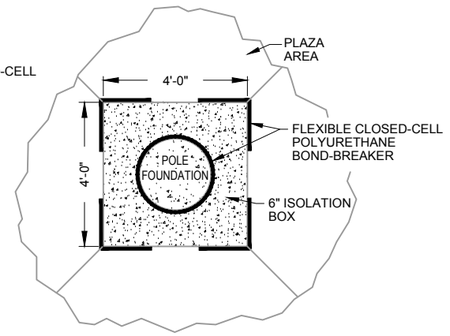
25 OF 68



A SECTION



VARIOUS PLAZA INSTALLATIONS FOR POLE HEIGHTS UP TO 20 FT.



5 ISOLATION BOX
NTS

GENERAL NOTES:

1. THE STRUCTURAL DESIGN SHOWN ON THIS SHEET IS BASED ON CERTAIN ASSUMPTIONS THAT ARE SHOWN ON THIS SHEET.
2. ENGINEERS NEED TO EVALUATE THE SITE CONDITIONS PRESENT, AND DETERMINE IF AN ALTERNATE DESIGN IS NEEDED.
3. CAISSON CONCRETE SHALL BE CDOT CLASS BZ f'c = 4,000 PSI.
4. CAISSON SHALL BE PLACED AGAINST UNDISTURBED EARTH.
5. ALL REINFORCING SHALL BE GRADE 60.
6. ALL REINFORCING ABOVE FINISHED GRADE AT PAVED AREAS SHALL BE EPOXY COATED.
7. ALL ANCHOR BOLTS AND ANCHOR BOLT HARDWARE SHALL BE GALVANIZED PER ASTM A 153.
8. FIELD WELDING OF ANCHOR BOLTS TO REBAR DURING ERECTION WILL NOT BE PERMITTE
9. ANCHOR BOLTS SHALL BE SET WITH A STEEL TEMPLATE UNTIL THE CONCRETE HAS CURED AT LEAST TWO DAYS.
10. CAISSON CONCRETE SHALL REACH THE SEVEN DAY PREDICTED STRENGTH PRIOR TO INSTALLING THE POLE STRUCTURE.
11. CHAMFER ALL EXPOSED CONCRETE EDGES 1" @ 45 DEG.
12. ALL ANCHOR BOLTS AND HARDWARE SHALL BE FURNISHED BY THE POLE MANUFACTURER AND SHALL BE INSTALLED BY THE CONCRETE CONTRACTOR.
13. ANCHOR BOLT SIZE, BOLT PROJECTION AND EMBEDMENT SHALL BE DETERMINED BY THE POLE MANUFACTURER.
14. ANCHOR BOLT CIRCLE SHALL BE DETERMINED BY THE POLE MANUFACTURER.
15. 11" BOLT CIRCLE SHOWN ON THE PLAN IS THE MAXIMUM DIAMETER THE CAISSON CAN ACCOMMODATE. IF BOLT CIRCLE EXCEEDS 11", CONTACT RTD.

DESIGN NOTES:

THE FOLLOWING SOIL PARAMETERS WERE USED FOR DESIGN:

A) LOOSE GRANULAR SOIL WITH A UNIT WEIGHT OF 100 PCF AND A 28 DEGREE ANGLE OF INTERNAL FRICTION (PHI ANGLE).

B) SOFT COHESIVE SOIL WITH A UNIT WEIGHT OF 100 PCF AND A UNIT COHESION OF 500 PSF.

CONTACT RTD IF ANY OF THE FOLLOWING SOIL CONDITIONS ARE ENCOUNTERED DURING DRILLING:

A) THE SOIL HAS A HIGH ORGANIC CONTENT OR CONSISTS OF SATURATED SILT AND CLAY.

B) THE SITE WON'T SUPPORT THE WEIGHT OF THE DRILLING RIG.

C) THE FOUNDATION SOILS ARE NOT HOMOGENOUS.

D) FIRM BEDROCK IS ENCOUNTERED.

LOADING AND DESIGN ARE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 2006 INTERIM.

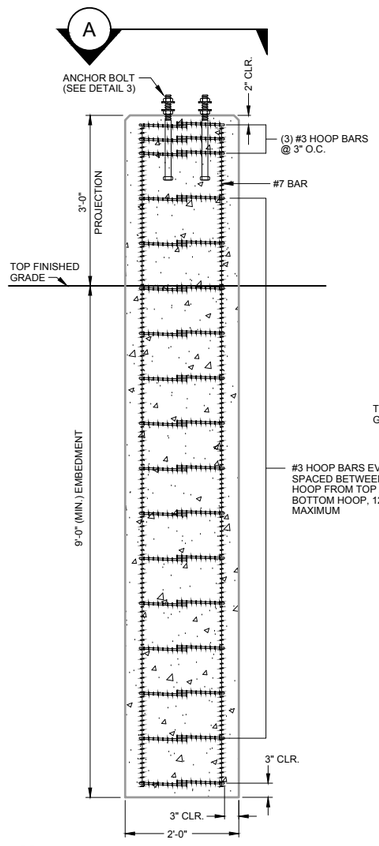
A DESIGN WIND VELOCITY OF 100 MPH HAS BEEN USED FOR DESIGNS WITHIN.
SHEARS (V_x & V_y) ARE APPLIED AT THE BOTTOM OF THE STRUCTURE BASE PLATE.
ALL LOADS ARE SERVICE WITH NO LOAD FACTOR(S).

CONSTRUCTION NOTES:

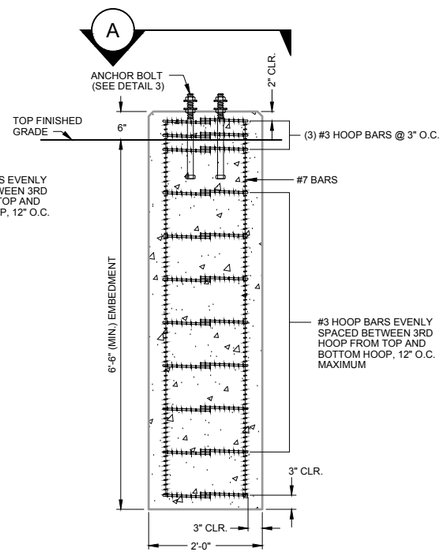
CONTRACTOR / INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING THEIR OWN PERSONNEL AND THAT OF ITS SUBCONTRACTOR(S) PERFORMING THE WORK.

UNDERGROUND OR EMBEDDED UTILITIES ARE [MA BE] LOCATED WITHIN OR ADJACENT TO THE AREA IN WHICH EXCAVATION OR FOUNDATION WORK IS TO BE PERFORMED.

THE CONTRACTOR/ INSTALLER SHALL EXERCISE DUE CAUTION DURING ALL EXCAVATION OR FOUNDATION WORK.



1 LIGHT POLE FOUNDATION
FOR POLE HEIGHTS UP TO 30 FT.
TYPICALLY USED IN PARKING LOTS

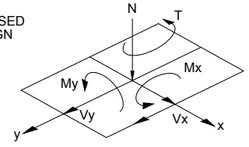


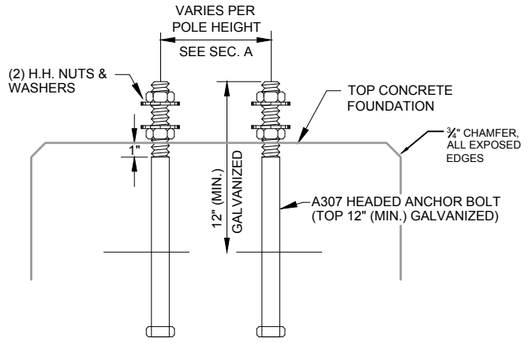
2 LIGHT POLE FOUNDATION
FOR POLE HEIGHTS UP TO 20 FT.
TYPICALLY USED IN PLAZA AREAS

COLUMN LOADING TABLE

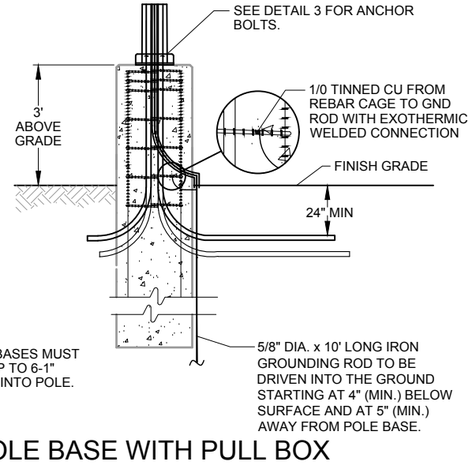
NOMINAL MOUNTING HEIGHT	VERTICAL LOADS				HORIZONTAL LOADS					
	N - LB				WIND X-DIRECTION			WIND Y-DIRECTION		
MAXIMUM (FT)	D.L. POLE	D.L. EQUIPMENT	ICE (LB)	T (FT-LB)	N (LB)	Vx (LB)	My (FT-LB)	N (LB)	Vy (LB)	Mx (FT-LB)
20'- 0"	147	80	63	286	-	308	4547	-	-	
30'- 0"	274	150	153	965	-	608	14763	-	-	

COLUMN LOADINGS USED FOR CAISSON DESIGN





3 ANCHOR BOLTS
PER LIGHT POLE MANUFACTURER



NOTE:

All POLE BASES MUST ALLOW UP TO 6-1" CONDUIT INTO POLE.

4 POLE BASE WITH PULL BOX
SHOWING CONDUIT LOCATIONS.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
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STRUCTURAL
LIGHT POLES - STRUCTURAL

SHEET REFERENCE NUMBER:
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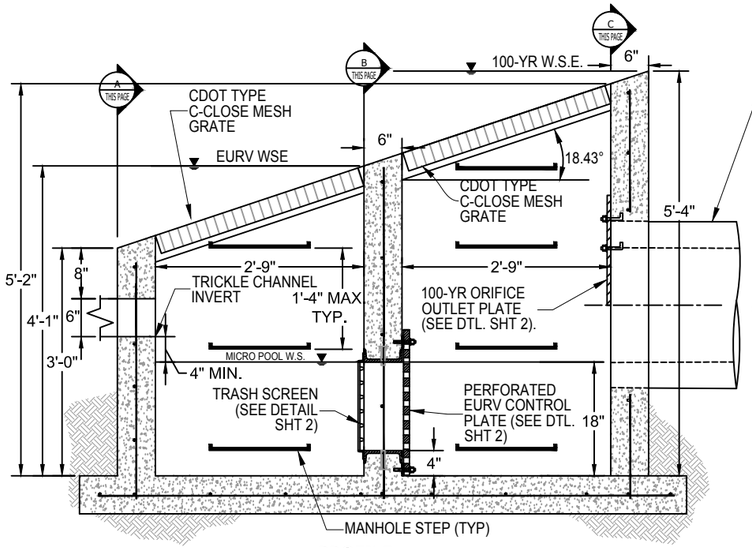
26 OF 68



PROFILE

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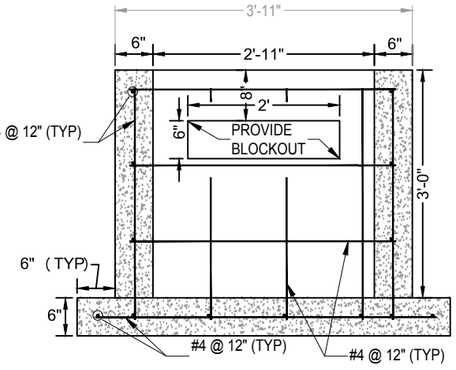

SECTION A

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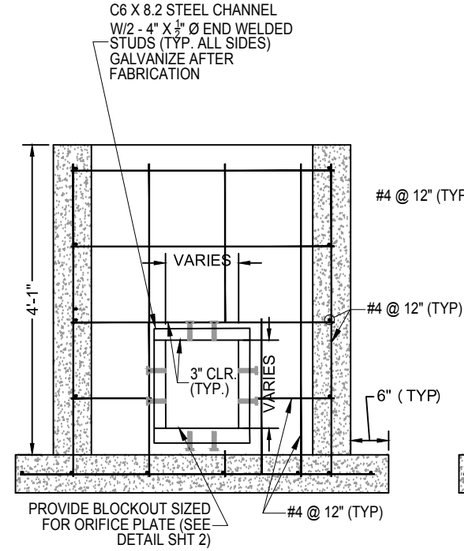
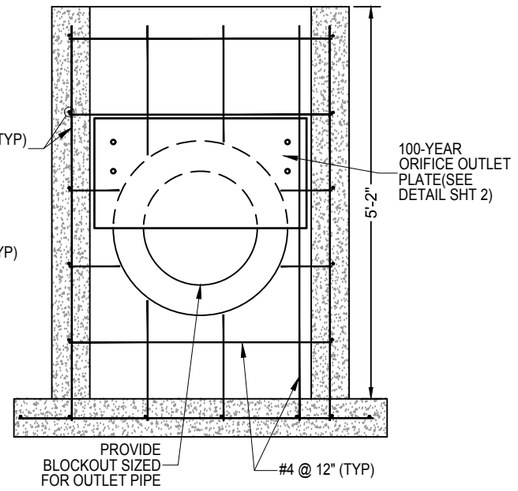


SECTION B

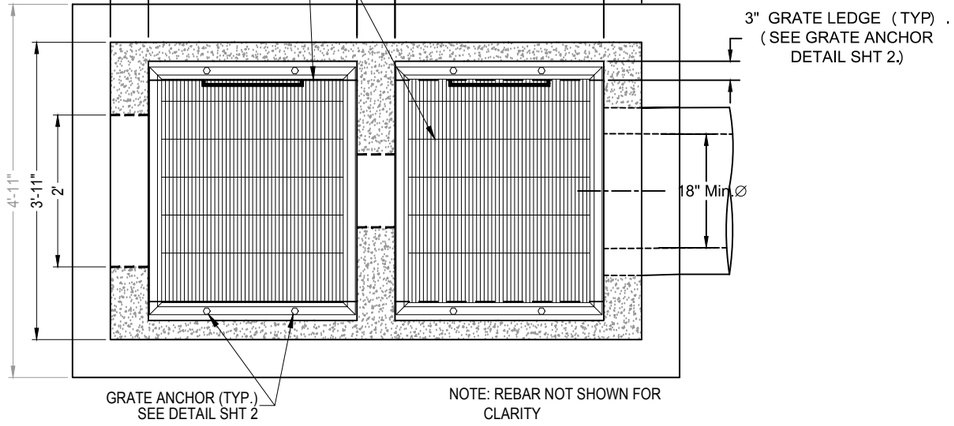
Scale: N.T.S.



SECTION C

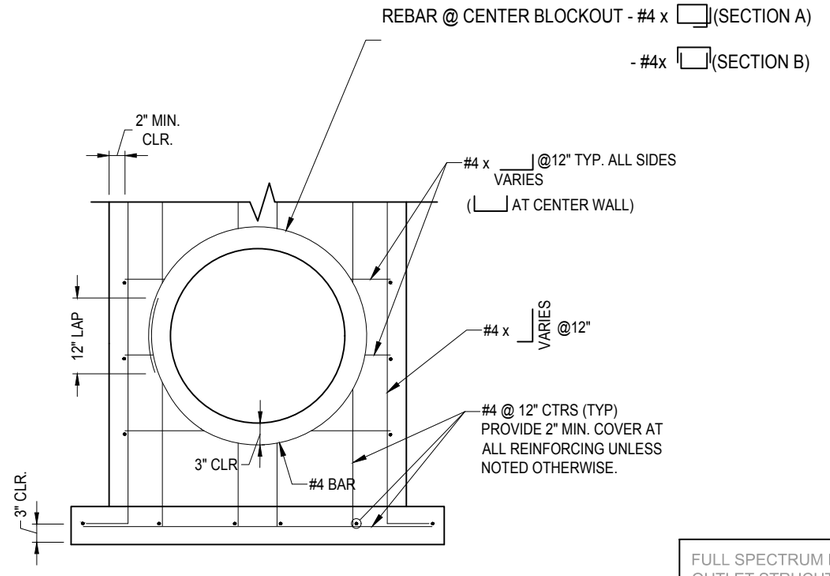
Scale: N.T.S.

NOTE: SEE REBAR PLACEMENT DETAIL FOR REINFORCING AROUND BLOCKOUTS



PLAN VIEW

Scale: N.T.S.



REBAR PLACEMENT - SHOWN AT SECTION C, SIMILAR AT SECTION A & B

Scale: N.T.S.

FULL SPECTRUM DETENTION OUTLET STRUCUTRE FOR 5-ACRE IMPERVIOUS AREA OR LESS

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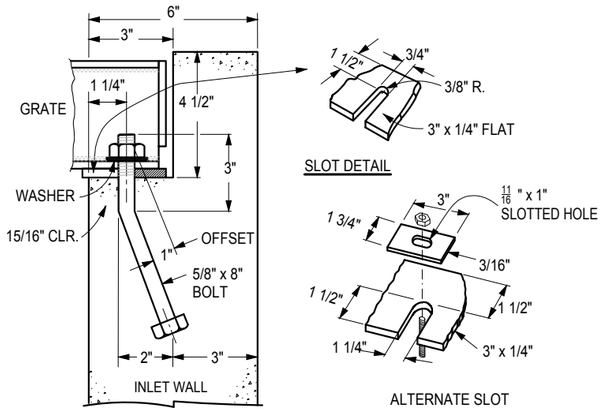
REGIONAL TRANSPORTATION DISTRICT

CIVIL
DETENTION OUTLET STRUCTURE - 1 OF 2

SHEET REFERENCE NUMBER: SD-C114A

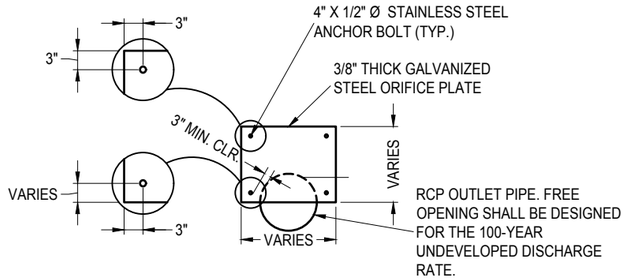
27 OF 68



GRATE INSTALLATION DETAIL

SLOT DETAIL

ALTERNATE SLOT AND HOLD DOWN PLATE DETAIL

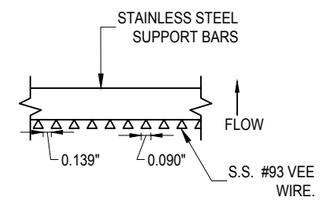


100-YEAR ORIFICE OUTLET PLATE

Scale: N.T.S.

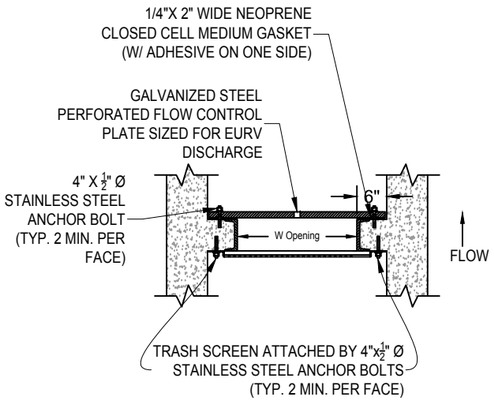
GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED #4, AND SHALL HAVE A MINIMUM 2 IN. CLEARANCE. CUT OR BEND AROUND PIPES AS REQUIRED.
3. STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED, AND SHALL BE IN ACCORDANCE WITH CDOT SUBSECTION 712.06.
4. MANHOLE STEPS SHALL CONFORM TO AASHTO M 199.
5. SEE CDOT STANDARD PLAN M-604-11, FOR REINFORCEMENT AROUND THE PIPE OPENING.
6. EURV CONTROL PLATE SHALL BE SIZED PER UDFCD CRITERIA.
7. ENGINEER SHALL CONFIRM THAT CLOSE MESH GRATE COVERING THE WATER QUALITY CHAMBER IS ABLE TO PASS THE 100 YEAR EURV FLOW RATE USING A 50% CLOGGING FACTOR.
8. TRASH SCREEN AND 100-YEAR ORIFICE PLATE SHALL BE DESIGNED PER UDFCD CRITERIA.



TRASH SCREEN DETAIL

Scale: N.T.S.



TRASH SCREEN ATTACHMENT DETAIL

Scale: N.T.S.

FOR 5-ACRE IMPERVIOUS AREA OR LESS

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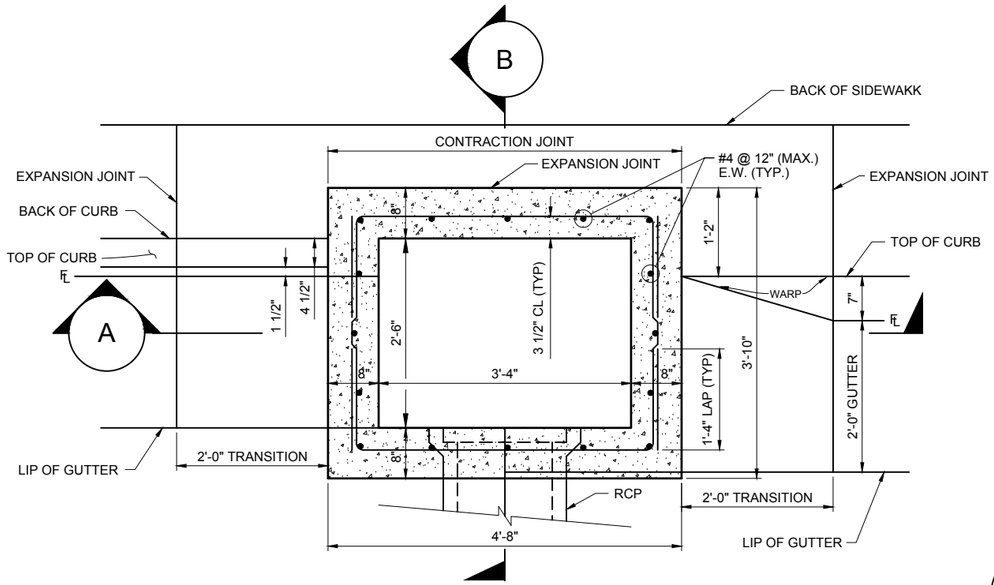
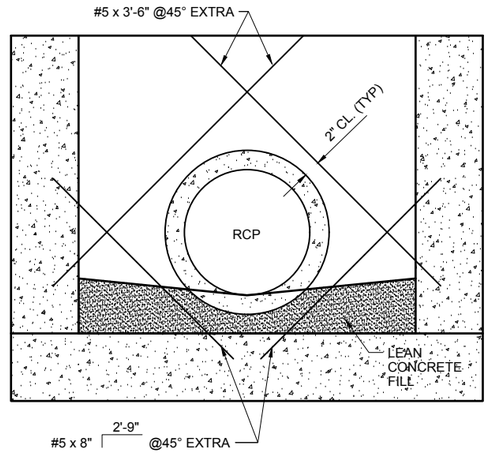
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
DETENTION OUTLET STRUCTURE - 2 OF 2

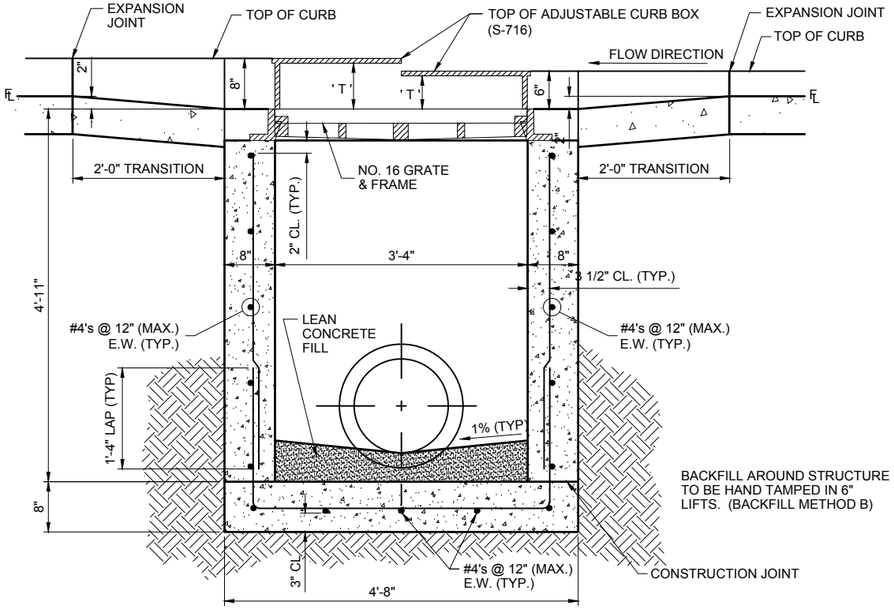
SHEET REFERENCE NUMBER:
SD-C114B
28 OF 68



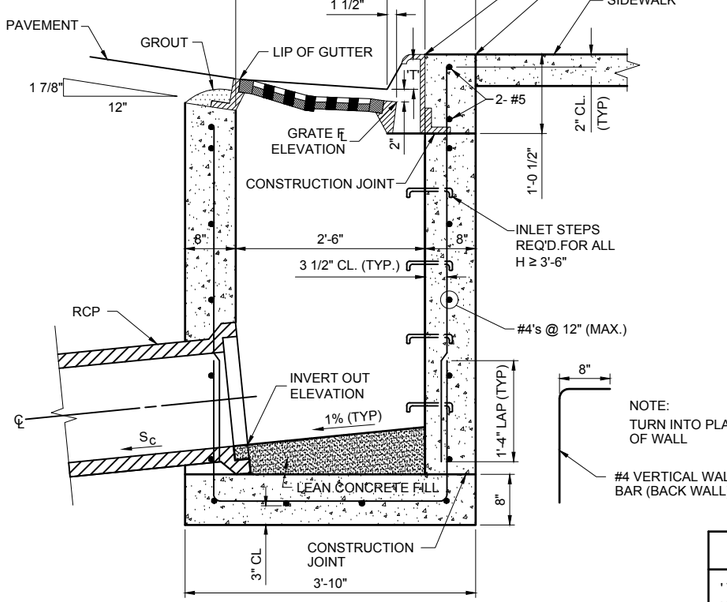
PLAN VIEW
VERTICAL CURB & GUTTER
NTS



1 DETAIL 1 - REBAR PLACEMENT AROUND CONNECTOR
NTS



A SECTION A
NTS

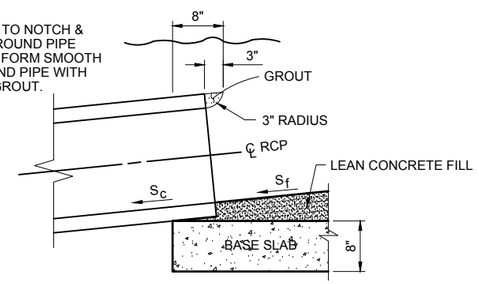


B SECTION B
NTS

NOTE:
TURN INTO PLANE OF WALL

#4 VERTICAL WALL BAR (BACK WALL)

NOTE:
CONTRACTOR TO NOTCH & BLOCK OUT AROUND PIPE OPENING AND FORM SMOOTH RADIUS AROUND PIPE WITH NON SHRINK GROUT.



2 DETAIL 2 - OPTIONAL CONNECTOR OUTLET
NTS

COMB. CURB, GUTTER & SIDEWALK
' T ' = THROAT OPENING
' T ' = 6" FOR VERTICAL CURB & GUTTER
' T ' = 5" FOR COMBINATION CURB GUTTER & SIDEWALK

NOTES:

1. FOR PAYMENT PURPOSES, INLET STRUCTURES SHALL ALSO INCLUDE 2'-0" CURB & GUTTER TRANSITION SECTION AT EACH END OF INLET PLUS SIDEWALK SECTIONS WHERE REQUIRED BEHIND INLET STRUCTURE AND TRANSITION SECTIONS.
2. FLOOR SLOPE MAY BE POURED MONOLITHICALLY WITH BASE.
3. Sc = SLOPE OF CONNECTOR = 1% MIN.
4. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS OR OTHERWISE APPROVED, ALL #16 INLETS SHALL BE CONSTRUCTED WITH AN ADJUDTABLE C.I. CURB BOX (S-716).
5. DESIGN CONDITIONS FOR INLET ALLOWS DEPTHS OF 5' (MAX). FOR INLETS MORE THAN 6 FEET IN DEPTH, SHOP DRAWINGS AND DESIGN ANALYSIS SHALL BE SUBMITTED FOR APPROVAL.
6. ALL REINFORCING STEEL SHALL BE ASTM, A-615, GRADE 60 DEFORMED BARS.
7. CONCRETE SHALL BE CLASS B CONCRETE.
8. SUB-GRADE SHALL BE A GRADATION EQUAL TO CLASS B BEDDING COMPACTED TO 95% MAXIMUM DRY DENSITY. AASHTO DESIGNATION T-180.
9. NO FORMWORK SHALL REMAIN INSIDE STRUCTURE WHEN COMPLETE.
10. SUB-GRADE SHALL BE SHAPED UNDISTURBED MATERIAL OR OVEREXCAVATED AND BACKFILLED WITH CLASS B BEDDING MATERIAL. COMPACTION SHALL BE AASHTO T180.
11. SPLICING OF REINFORCING STEEL SHALL BE PERMITTED ONLY WHERE DETAILED IN DRAWINGS.
12. INLET WALLS SHALL BE FORMED BOTH INSIDE AND OUTSIDE. CASTING OF SIDEWALLS AGAINST EARTH IS NOT PERMITTED.
13. LEAN CONCRETE FILL TO BE f'c = 2000 PSI.
14. THE TRANSITION BETWEEN GUTTER FL ELEVATION AND GRATE ELEVATION DROPS 2".

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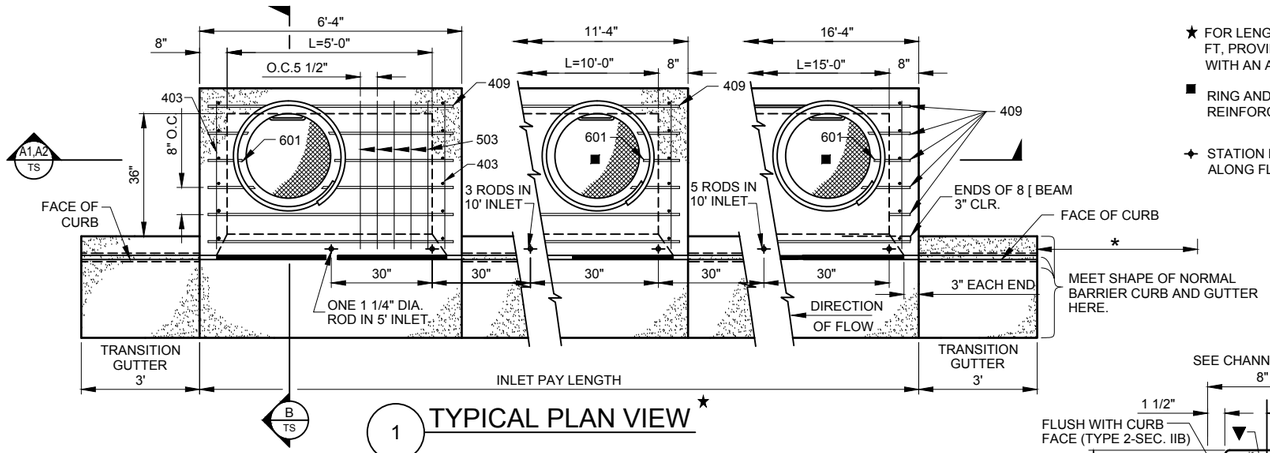
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
TYPE 16 OPEN THROAT INLET ADJUSTABLE CURB BOX

SHEET REFERENCE NUMBER: SD-C115
29 OF 68

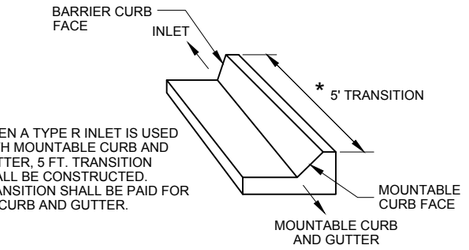


1 TYPICAL PLAN VIEW ★

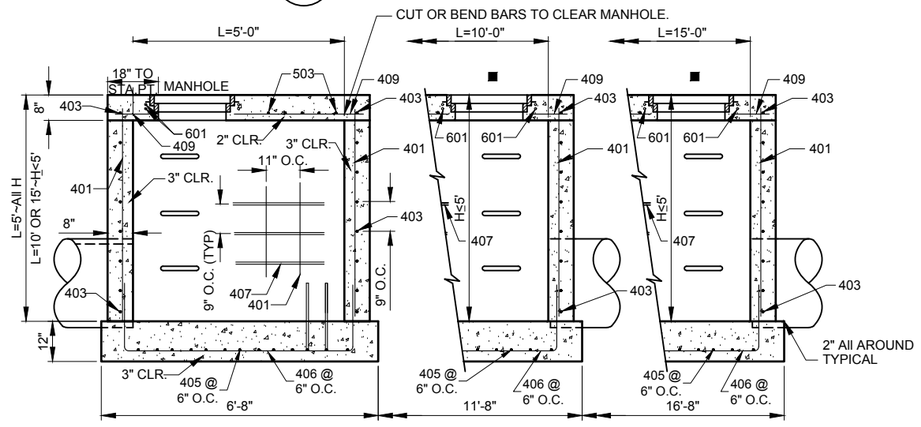
★ FOR LENGTH (L) GREATER THEN 10 FT, PROVIDE ACCESS AT BOTH ENDS WITH AN ADDITIONAL MANHOLE.

■ RING AND COVER. CUT REINFORCEMENT BAR ACCORDINGLY.

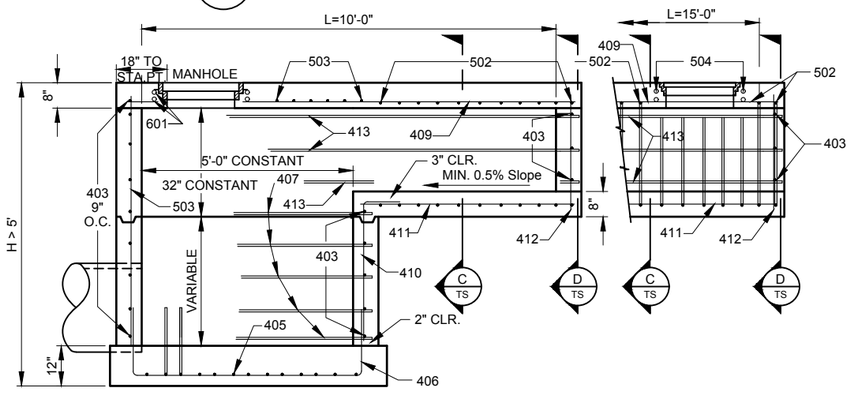
✦ STATION POINT AT MIDPOINT OF INLET ALONG FLOWLINE.



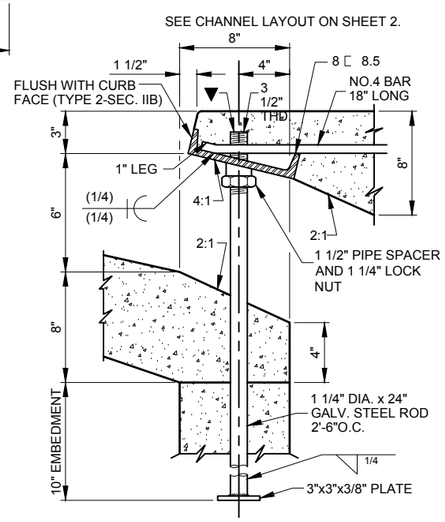
* WHEN A TYPE R INLET IS USED WITH MOUNTABLE CURB AND GUTTER, 5 FT. TRANSITION SHALL BE CONSTRUCTED. TRANSITION SHALL BE PAID FOR AS CURB AND GUTTER.



A1 SECTION A REGULAR INLET

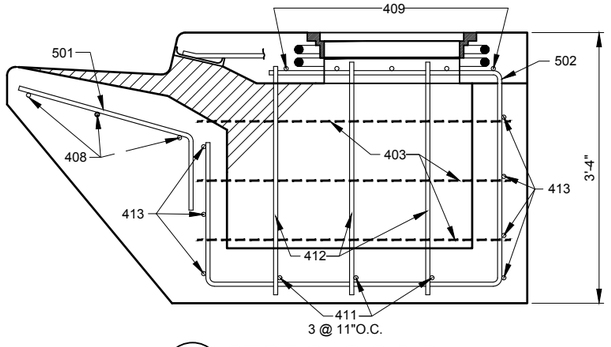


A2 SECTION A INLET WITH DROP BOX~H>5'



3 CURB FACE ASSEMBLY

▼ PLACE ENTIRE ASSEMBLY BEFORE POURING CONCRETE.

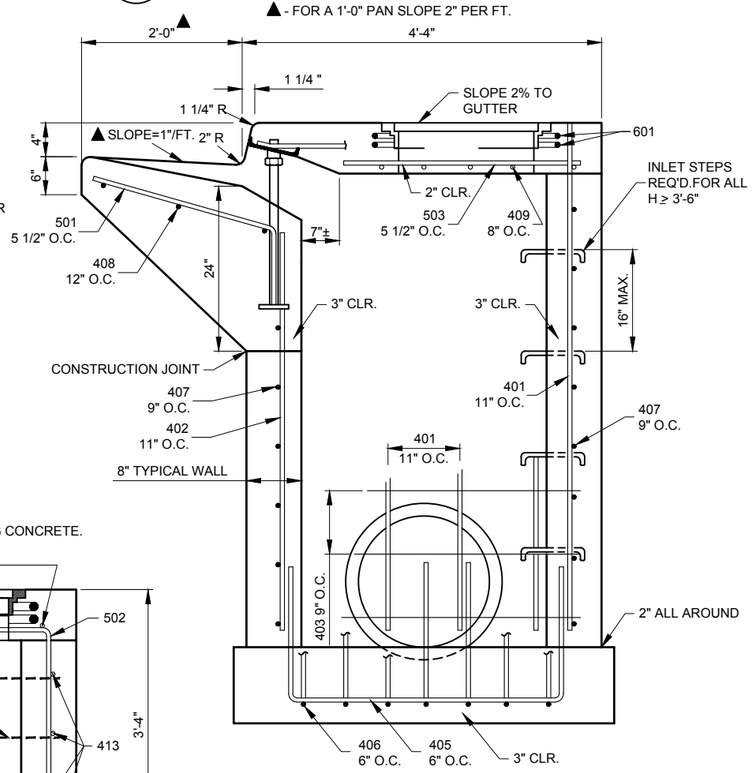


C&D TS SECTIONS C & D

(DOTTED BARS ARE IN SECTION D)

2 TRANSITION CURB

▲ - FOR A 1'-0" PAN SLOPE 2" PER FT.



B SEC. B TYP.END VIEW

NOTE:
1. MANHOLE RING & COVER, STATION POINT AND OUTFLOW PIPE SHALL BE LOCATED AT THE SAME END OF THE INLET.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
CURB INLET TYPE R (MODIFIED) 1 OF 2

SHEET REFERENCE NUMBER: SD-C116A

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TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

MARK	BAR #	O.C. SPACING	TYPE	ALL INLETS L= → 5'		INLETS, H≤5' 10'		INLETS, H≤5' 15'		INLETS, H > 5' 10'		INLETS, H > 5' 15'	
				NO.REQ'D.	LENGTH	NO.REQ'D.	LENGTH	NO.REQ'D.	LENGTH	NO.REQ'D.	LENGTH	NO.REQ'D.	LENGTH
401		11"	II	15	*	21	*	26	*	11	*	11	*
402		11"	II	7	*	13	*	18	*	7	*	7	*
403		9"	II	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-10"
405		6"	VI	11	6'-10"	21	6'-10"	31	6'-10"	11	6'-10"	11	6'-10"
406		6"	VIII	7	8'-10"	7	13'-10"	7	18'-10"	7	8'-10"	7	8'-10"
407	#4	9"	II	*	5'-10"	*	10'-10"	*	15'-10"	*	5'-10"	*	5'-10"
408		12"	II	3	6'-10"	3	11'-10"	3	16'-0"	3	11'-10"	3	16'-0"
409		8"	II	6	5'-10"	6	10'-10"	6	15'-10"	6	10'-10"	6	15'-10"
410		11"	VII							3		3	*
411		11"	II							3	5'-2"	3	10'-2"
412		11"	II							3	2'-9"	3	2'-9"
413		9"	II							7	10'-10"	7	15'-10"
501		5 1/2"	IV	11	3'-4"	22	3'-4"	33	3'-4"	22	3'-4"	33	3'-4"
502		5 1/2"	III							11	11'-5"	17	11'-5"
503	#5	5 1/2"	II	5	3'-6"	16	3'-6"	27	3'-6"	6	3'-6"	6	3'-6"
504		5 1/2"	IX									5	8'-4"
	# 6												
601		2 1/2"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	4	8'-10"
Ø8[8.5				1	5'-10"	1	10'-10"	1	15'-10"	1	10'-10"	1	15'-10"
				2BARS,1ROD	——	4BARS,3RODS	——	8BARS,5RODS	——	4BARS,3RODS	——	8BARS,5RODS	——
						REGULAR INLETS				DROP BOX INLETS			

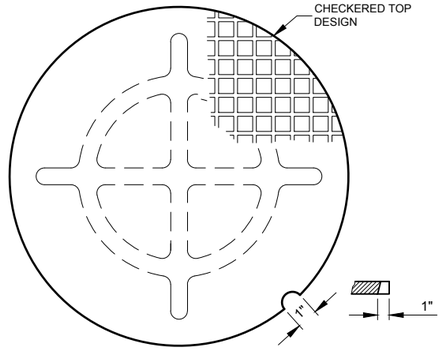
* VARIABLE, REFER TO TABLE TWO.
Ø INCLUDE 18" NO. 4 BARS (SEE CHANNEL LAYOUT DETAIL).
▾ SEE CURB FACE ASSEMBLY ON SHEET 1 AND CHANNEL LAYOUT DETAILS ON THIS SHEET.

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"

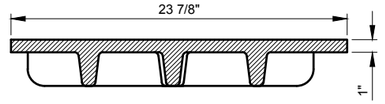
'H'	LENGTH 401	LENGTH 402	LENGTH 410	N0. REQ'D. REGULAR 403	N0. REQ'D. REGULAR 407	NO. REQ'D. DROP BOX 403	NO. REQ'D. DROP BOX 407	L=5' CU.YD.CONC.	L=5' LB.STEEL	L=10' CU.YD.CONC.	L=10' LB.STEEL	L=15' CU.YD.CONC.	L=15' LB.STEEL
3'-0"	2'-8"	1'-8"		10	7			3.2	285	5.3	497	7.4	706
3'-6"	3'-2"	2'-2"		10	7			3.4	305	5.7	528	7.9	747
4'-0"	3'-8"	2'-8"		12	9			3.7	326	6.0	559	8.4	786
4'-6"	4'-2"	3'-2"		12	9			3.9	334	6.4	571	8.8	803
5'-0"	4'-8"	3'-8"		14	11			4.1	354	6.7	602	9.3	844
5'-6"	5'-2"	4'-2"	3'-5"	16	13	15	6	4.4	375	6.0	607	7.4	850
6'-0"	5'-8"	4'-8"	3'-11"	16	13	16	6	4.6	382	6.2	616	7.6	860
6'-6"	6'-2"	5'-2"	4'-5"	18	15	18	8	4.8	402	6.4	637	7.8	880
7'-0"	6'-8"	5'-8"	4'-11"	20	17	19	10	5.0	423	6.6	654	8.0	897
7'-6"	7'-2"	6'-2"	5'-5"	20	17	20	10	5.3	430	6.9	664	8.3	907
8'-0"	7'-8"	6'-8"	5'-11"	22	19	22	12	5.5	451	7.1	684	8.5	927
8'-6"	8'-2"	7'-2"	6'-5"	24	21	23	14	5.7	471	7.3	702	8.7	944
9'-0"	8'-8"	7'-8"	6'-11"	24	21	24	14	6.0	479	7.6	711	9.0	954
9'-6"	9'-2"	8'-2"	7'-5"	26	23	26	16	6.2	499	7.8	732	9.2	974
10'-0"	9'-8"	8'-8"	7'-11"	28	25	27	18	6.4	520	8.0	749	9.4	992
10'-6"	10'-2"	9'-2"	8'-5"	28	25	28	18	6.7	527	8.3	759	9.7	1001
11'-0"	10'-8"	9'-8"	8'-11"	30	27	30	20	6.9	547	8.5	779	9.9	1022

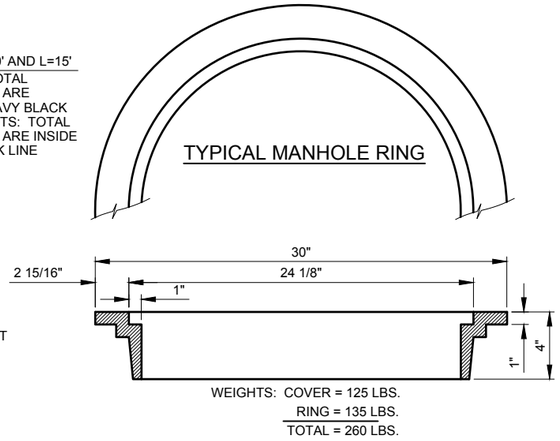
NOTE: FOR L=5', L=10' AND L=15'
REGULAR INLETS: TOTAL QUANTITIES NEEDED ARE OUTSIDE OF THE HEAVY BLACK LINE. DROP BOX INLETS: TOTAL QUANTITIES NEEDED ARE INSIDE OF THE HEAVY BLACK LINE

STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL CHANNEL.



TYPICAL MANHOLE COVER

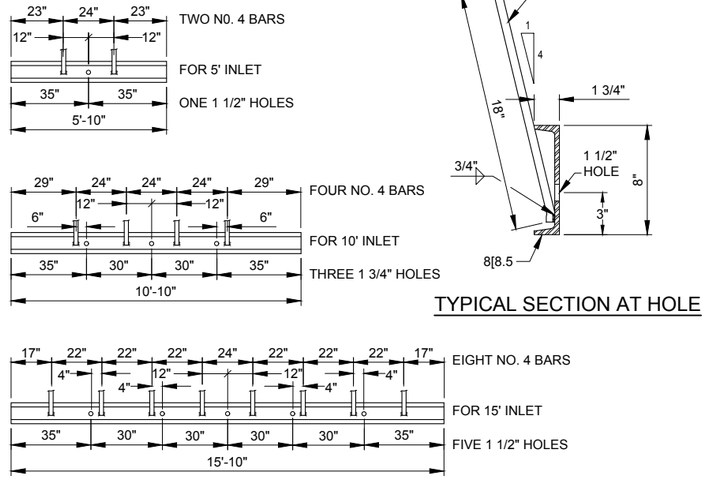


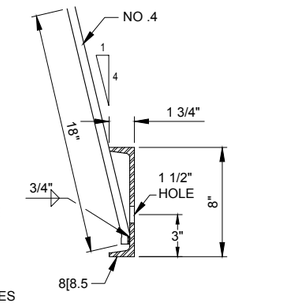


WEIGHTS: COVER = 125 LBS.
RING = 135 LBS.
TOTAL = 260 LBS.

GENERAL NOTES:

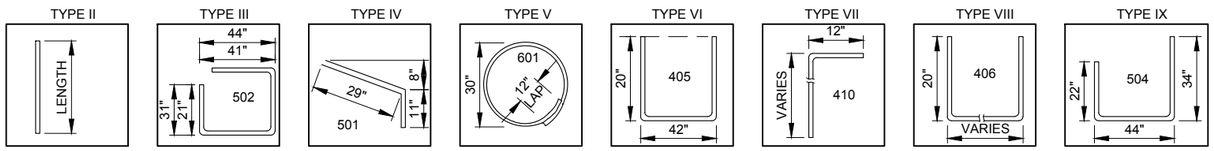
1. ALL CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8" THICK.
3. INLET STEPS SHALL BE IN ACCORDANCE WITH AASHTO M 199.
4. CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4 IN. CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXIST. CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
6. REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 IN. MIN. CLEARANCE. ALL REINFORCING BARS SHALL BE EPOXY COATED.
7. DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
8. MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY OR DUCTILE CAST IRON CONFORMING TO CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 712.06.
9. SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK. QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
10. STRUCTURAL STEEL SHALL BE GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 712.06.





TYPICAL SECTION AT HOLE

CHANNEL LAYOUT DETAILS



BAR BENDING DIAGRAMS ~ (Dimensions are Out-to-Out of bar)

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
CURB INLET TYPE R (MODIFIED) 2 OF 2

SHEET REFERENCE NUMBER: SD-C116B

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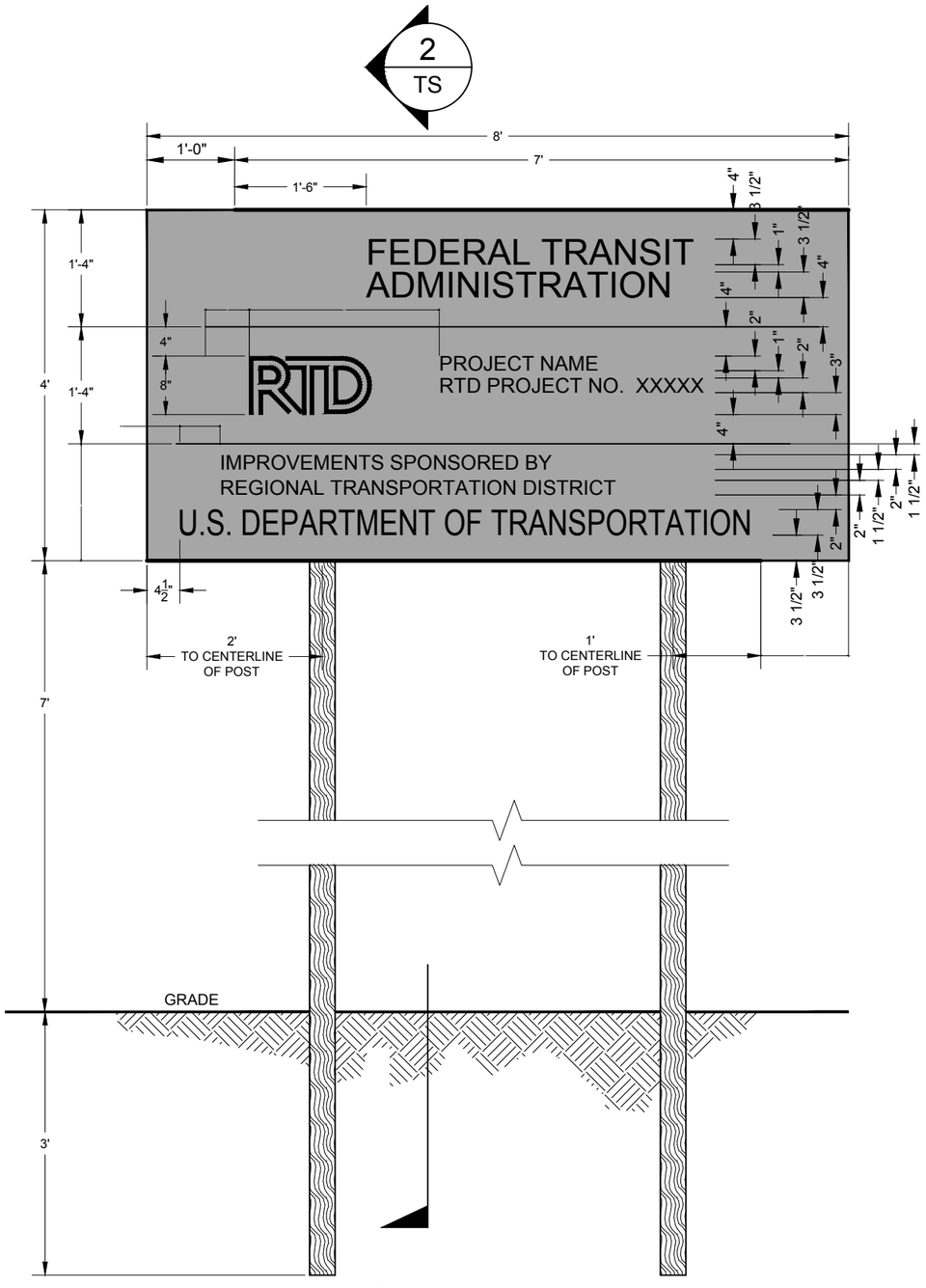
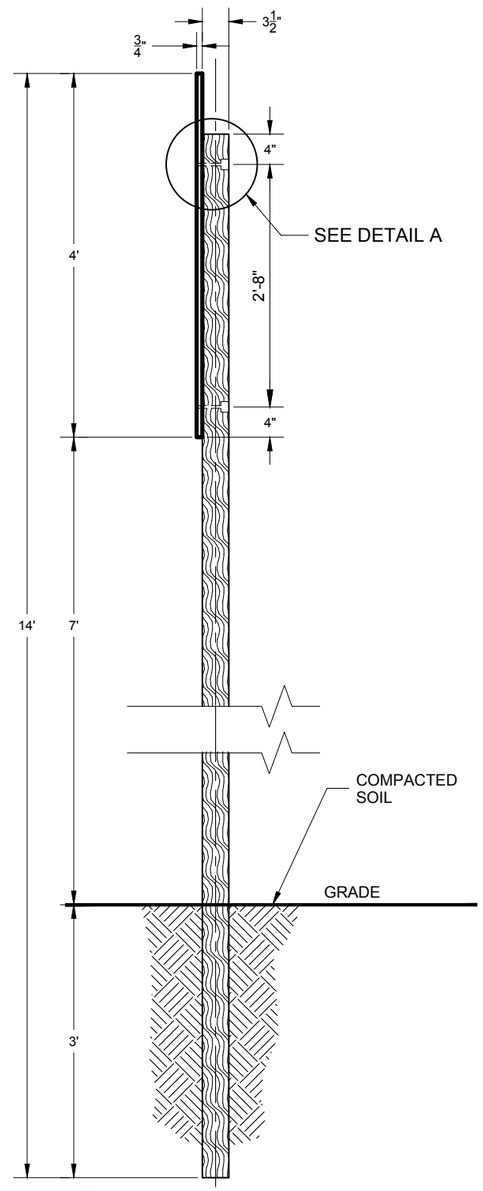
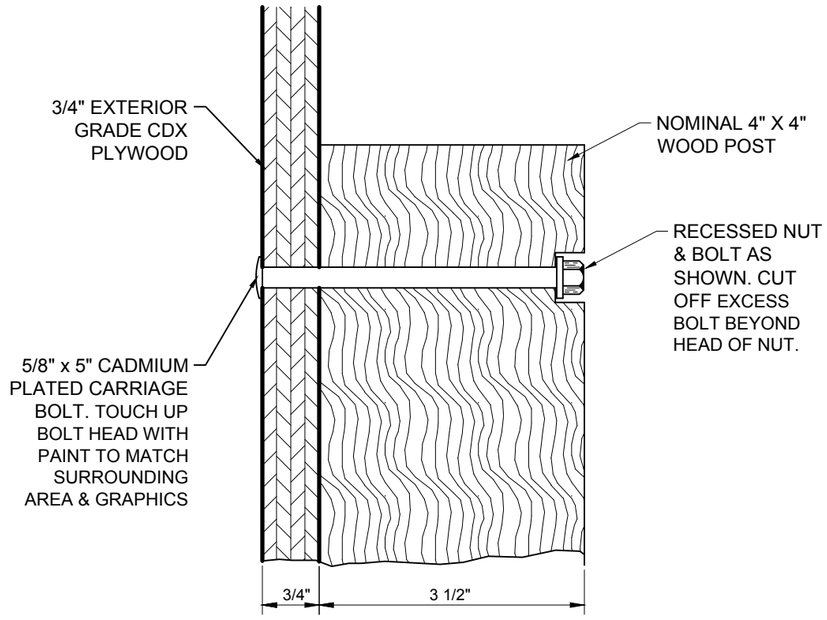


1 SIGN DETAIL
NTS



2 SIDE ELEVATION
NTS



A DETAIL
NTS

NOTES:

1. SIGN FACES SHALL BE CONSTRUCTED OF 3/4-INCH THICK, 5-PLY, EXTERIOR GRADE, A-B-FACED, DOUGLAS-FIR PLYWOOD, APA-GRADE-STAMPED.
2. SIGN FRAME SHALL BE NOMINAL 2 INCH X 2 INCH OR 2 INCH X 4 INCH STOCK, EITHER CONSTRUCTION-GRADE DOUGLAS FIR OR A-GRADE REDWOOD.
3. POSTS SHALL BE 4 INCH X 6 INCH CONSTRUCTION-GRADE DOUGLAS FIR, PRESSURE-PRESERVATIVE-TREATED.
4. BASED ON SITE CONDITIONS, SIGN MAY BE MOUNTED ON A BUILDING OR A VEHICLE.

NO.	REVISIONS	BY	DATE
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FILE NAME: SEE LEFT MARGIN
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RTD ENGINEERING DIVISION
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DENVER, COLORADO 80202
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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
TEMPORARY FUNDING AGENCY SIGNS -1 OF 2

SHEET REFERENCE NUMBER:
SD-C117A
32 OF 68

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3.0" Radius, 0.8" Border, 0.6" Indent, Black on Orange;
"COLORADO" D; "AT WORK" D;
NOTE TO FABRICATORS: CDOT logo sticker will be provided by Region Traffic.;
3.0" Radius, 1.0" Border, 0.6" Indent, White on Green;
"PROJECT FUNDED" D; "BY YOUR" D;
"FASTER" Arial Black; "VEHICLE" D;
"REGISTRATION FEES" D;

W21-1A MIN;
18.0" across sides 1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange;
American Recover Sign;

CHECK WITH CDOT FOR UPDATES.

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CHECKED BY: JS DATE: ######
APPROVED BY: HJS DATE: ######

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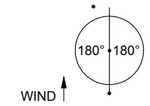
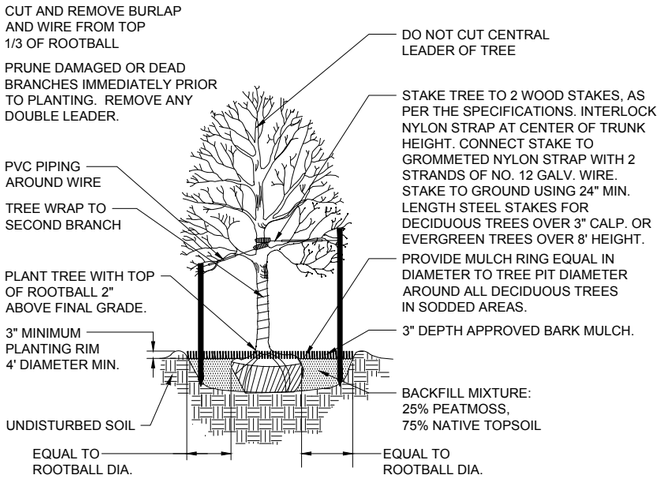
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

CIVIL
TEMPORARY FUNDING AGENCY SIGN - 2 OF 2

SHEET REFERENCE NUMBER:
SD-C117B

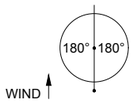


GUYING PATTERN FOR DECIDUOUS TREE

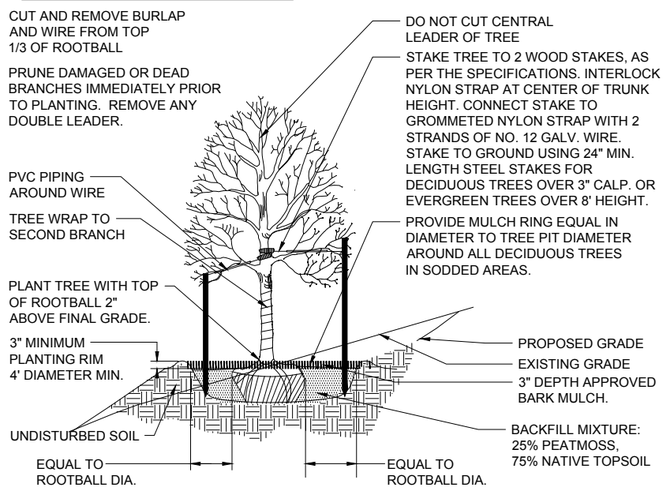


1 DECIDUOUS TREE PLANTING DETAIL

SCALE: NTS

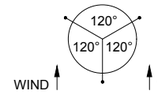


GUYING PATTERN FOR DECIDUOUS TREE



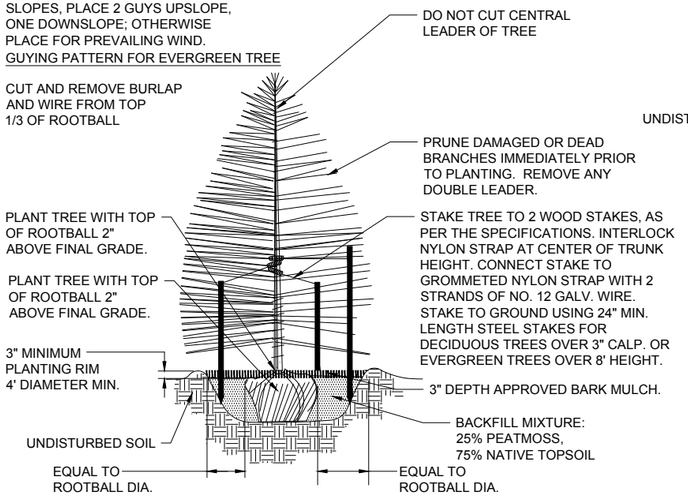
5 DECIDUOUS TREE PLACEMENT ON SLOPE

SCALE: NTS



FOR TREES ON 4:1 OR STEEPER SLOPES, PLACE 2 GUYS UPSLOPE, ONE DOWNSLOPE; OTHERWISE PLACE FOR PREVAILING WIND.

GUYING PATTERN FOR EVERGREEN TREE

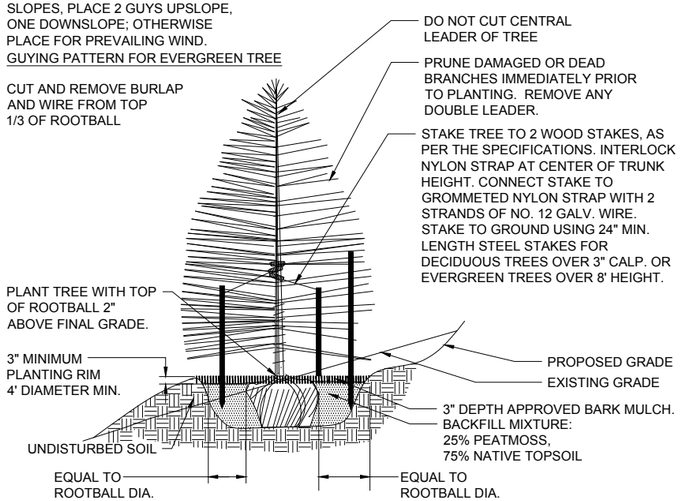


2 CONIFEROUS TREE PLANTING DETAIL

SCALE: NTS

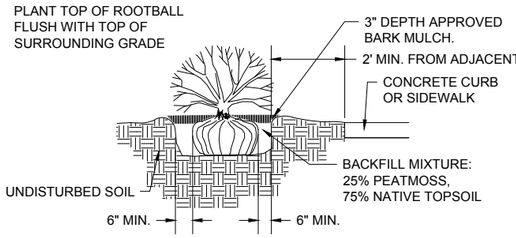
FOR TREES ON 4:1 OR STEEPER SLOPES, PLACE 2 GUYS UPSLOPE, ONE DOWNSLOPE; OTHERWISE PLACE FOR PREVAILING WIND.

GUYING PATTERN FOR EVERGREEN TREE



6 CONIFEROUS TREE PLACEMENT ON SLOPE

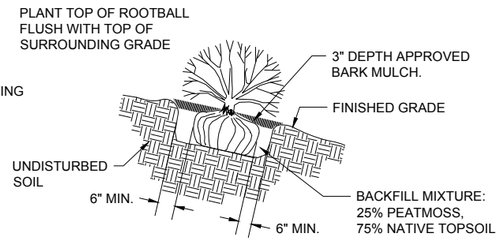
SCALE: NTS



FOR BALLED AND BURLAPPED SHRUBS: CUT AND REMOVE BURLAP FROM THE TOP 1/3 OF ROOTBALL. REMOVE ALL WIRE.

3 SHRUB PLANTING DETAIL

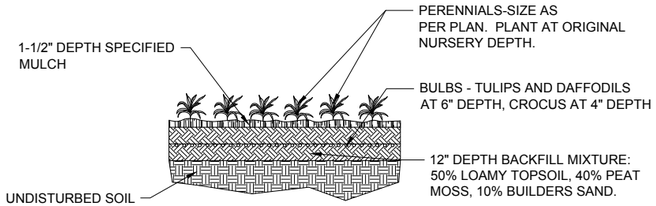
SCALE: NTS



FOR BALLED AND BURLAPPED SHRUBS: CUT AND REMOVE BURLAP FROM THE TOP 1/3 OF ROOTBALL. REMOVE ALL WIRE.

4 SHRUB PLACEMENT ON SLOPE

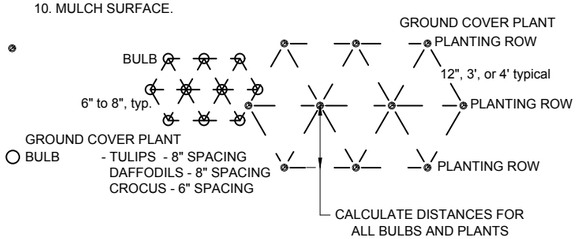
SCALE: NTS



7 PERENNIAL / GROUNDCOVER PLANTING

SCALE: NTS

BULB PLANTING PROCEDURE:
1. EXCAVATE FULL 12" DEPTH.
2. PLACE 6" OF SOIL MIX
3. INSTALL BULBS AT PROPER SPACING.
4. WATER.
5. HAND COMPACT SOIL.
6. SPREAD TOP 6" OF SOIL MIX.
7. INSTALL GROUND COVER PLANTS AT PROPER SPACING.
8. WATER.
9. HAND COMPACT SOIL.
10. MULCH SURFACE.



8 TRIANGULAR PLANT SPACING DIAGRAM

SCALE: NTS

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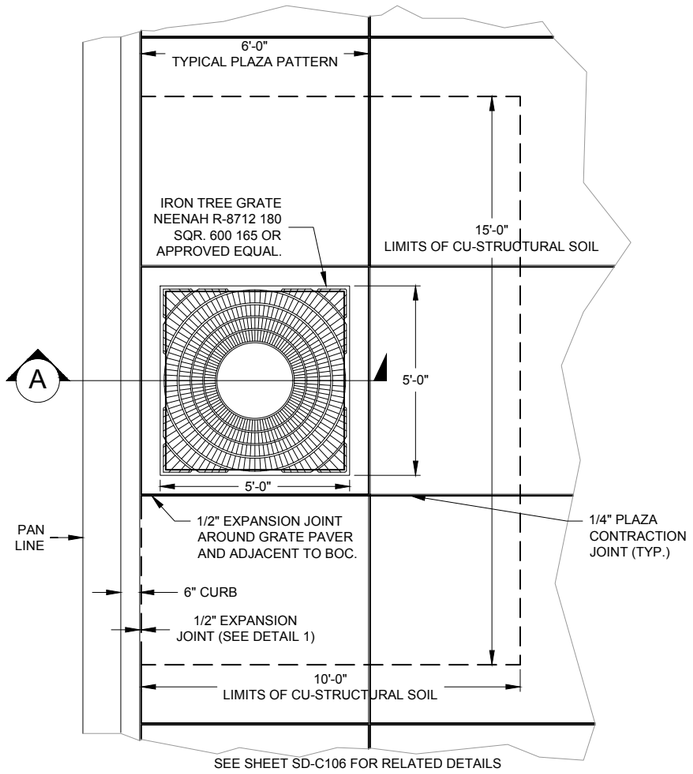
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

LANDSCAPE
PLANTING DETAILS

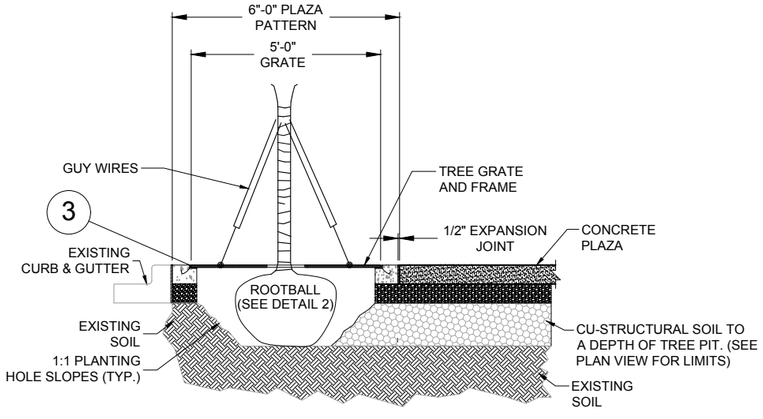
SHEET REFERENCE NUMBER:
SD-L101

34 OF 68



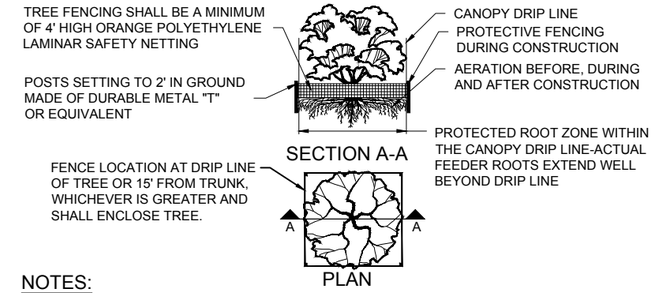
PLAN VIEW - TREE WELL

SCALE: 1/2"=1'-0"



A SECTION - TREE GRATE

SCALE: 1/2" = 1'-0"

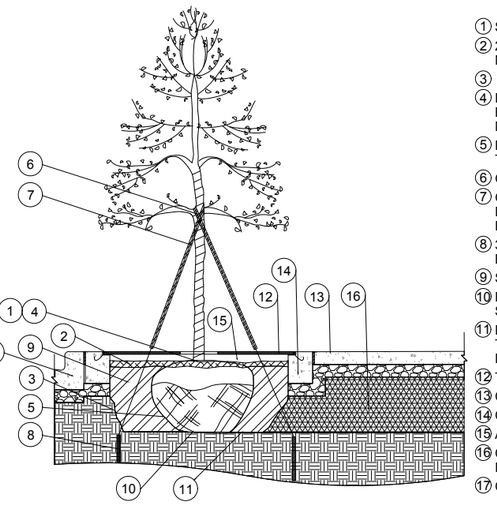


NOTES:

1. TREE PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT ALL TIMES.
2. DAMAGE DONE TO PROTECTION FENCING SHALL BE REPAIRED IMMEDIATELY
3. ONCE PROTECTION FENCING IS IN PLACE, CONTRACTOR SHALL NOT ENTER AREA WITHOUT PRIOR AUTHORIZATION FROM THE OWNER.
4. CONTRACTOR SHALL NOT STORE EQUIPMENT, MATERIAL OR PERFORM ANY OTHER STAGING WITHIN PROTECTION AREA.

1 DETAIL - EXISTING TREE PROTECTION

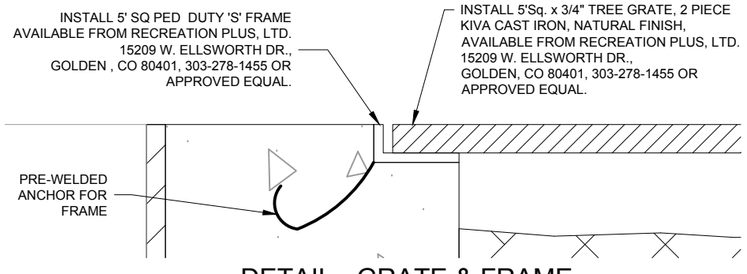
SCALE: NTS



1. SET ROOT FLARE 3" ABOVE ADJACENT GRADE.
2. 2" DEEP MULCH. EXTEND MULCH TO EDGE OF ROOT BALL. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK.
3. 1:1 SLOPES ON SIDES OF PLANTING HOLE.
4. REMOVE ALL TWINE, ROPE, AND WIRE FROM ENTIRE ROOT BALL AND TRUNK. CUT AND REMOVE TOP 2/3 OF BURLAP MINIMUM.
5. PLACE SOIL AROUND ROOT BALL FIRMLY. DO NOT COMPACT OR TAMP. SETTLE SOIL WITH WATER AND FILL AIR POCKETS.
6. GROMMETED NYLON STRAPS
7. GALVANIZED WIRE OR CABLE- TWIST WIRE TO TIGHTEN. DO NOT OVER TIGHTEN WIRE. LEAVE 1 INCH OF PLAY. PROVIDE 1/2" PVC SLEEVES FOR WIRES.
8. 3' STEEL T-POST ALL SHALL BE DRIVEN OUTSIDE ROOT BALL IN UNDISTURBED SOIL.
9. SEE SPECIFICATION FOR TOPSOIL REQUIREMENTS.
10. PLACE ROOT BALL ON UNDISTURBED SOIL TO PREVENT SETTLEMENT.
11. PERFORM PERCOLATION TEST PRIOR TO PLANTING. WATER TO LEACH IN TREE PIT WITHIN 24 HOURS OR ADDITIONAL DRAINAGE MEASURES REQUIRED.
12. TREE GRATE AND FRAME.
13. CONCRETE PAVING.
14. CONCRETE CURB-EDGE FOR GRATE.
15. AIR VOID, 2" MINIMUM BETWEEN MULCH AND BOTTOM OF GRATE.
16. CU-STRUCTURAL SOIL TO DEPTH OF TREE PIT SEE PLAN FOR SOIL LIMITS.
17. CURB AND GUTTER.

2 DETAIL - ROOTBALL INSTALLATION

SCALE: NTS



3 DETAIL - GRATE & FRAME

SCALE: 6" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

LANDSCAPE
PLAZA TREE GRATE INSTALLATION

SHEET REFERENCE NUMBER:
SD-L102
35 OF 68

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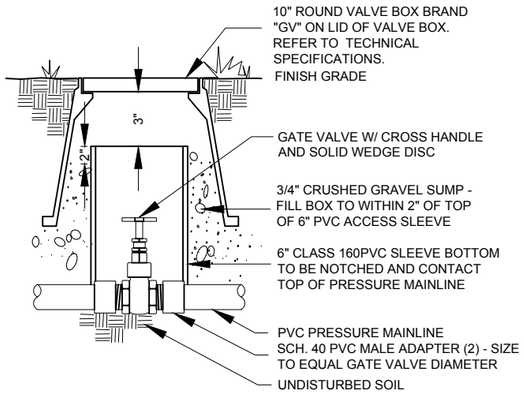
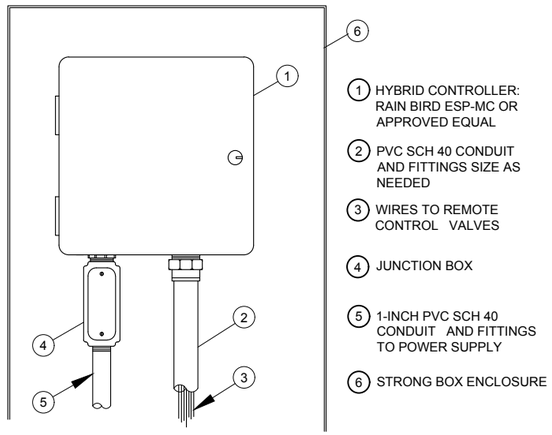
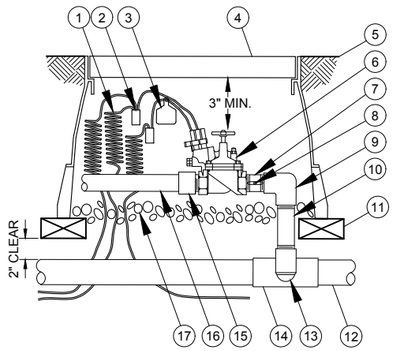


1 GATE VALVE
NTS

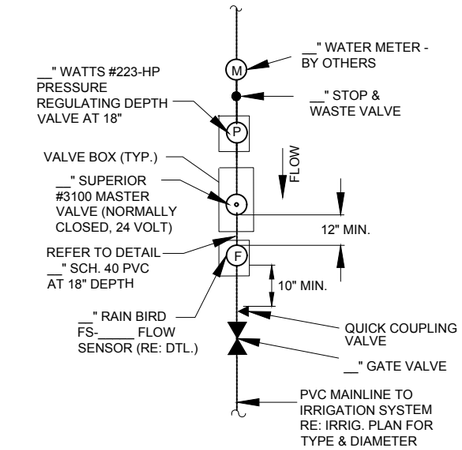


2 CONTROLLER
NTS

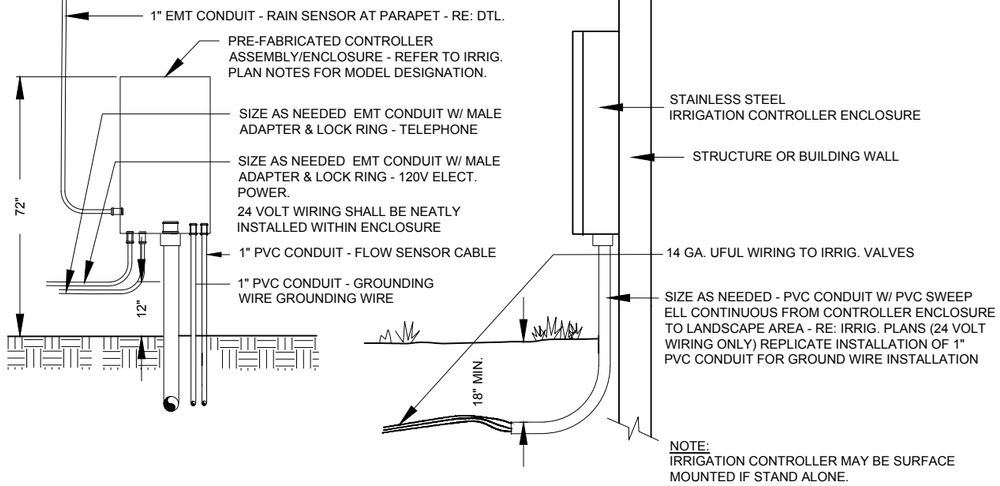


1 30-INCH LINEAR LENGTH OF WIRE COILED
2 WATER PROOF CONNECTION (1 OF 2)
3 ID TAG
4 VALVE BOX WITH COVER: 12-INCH SIZE
5 FINISH GRADE/TOP OF MULCH/SOD
6 REMOTE CONTROL VALVE: RAIN BIRD GB
7 PVC SCH 80 NIPPLE (CLOSE)
8 BALL VALVE
9 PVC SCH 40 ELL
10 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
11 BRICK (1 OF 4)
12 PVC MAINLINE PIPE
13 SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
14 PVC SCH 40 TEE OR ELL
15 PVC SCH 40 MALE ADAPTER
16 POLY PIPE
17 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

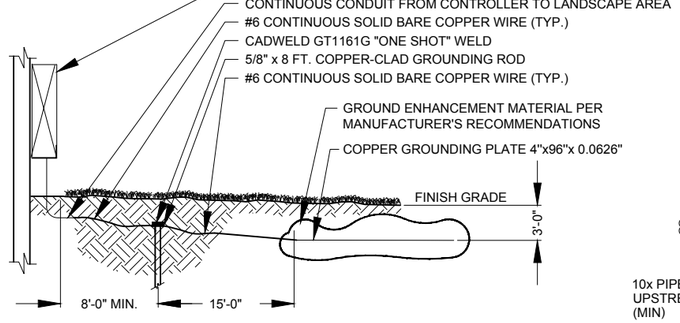
3 REMOTE CONTROL VALVE
NTS



4 POINT OF CONNECTION - PIPING SCHEMATIC
NTS



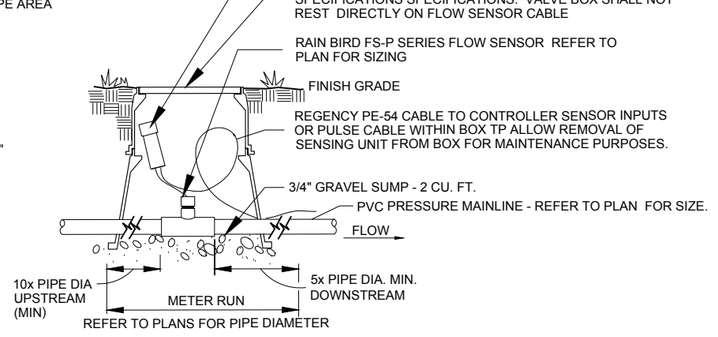
5 CONTROLLER
NTS



GROUNDING PLATE DESIGN CONSISTS OF ONE VERTICAL 8-FOOT COPPER CLAD GROUNDING ROD AT LEAST EIGHT FEET FROM THE EQUIPMENT, AND A COPPER GROUNDING PLATE. INSTALL GROUNDING PLATE HORIZONTALLY, THREE FEET DEEP AND 15' FROM THE GROUNDING ROD.

NOTE:
PERFORM CADWELD CONNECTION TO GROUNDING ROD IN OWNER'S PRESENCE PRIOR TO BACKFILL.

6 CONTROLLER GROUNDING
NTS



NOTES:

1. NO FITTINGS INCLUDING REDUCER BUSHINGS, TEES, ELLS, ETC, SHALL BE INSTALLED WITHIN "METER RUN" DISTANCE
2. DIAMETER OF FLOW SENSOR TEE AND "METER RUN" PIPING SHALL BE EQUAL. NO REDUCER BUSHINGS, ADAPTERS, ETC. SHALL BE INSTALLED WITHIN FLOW SENSOR TEE.
3. VALVE BOX SHALL NOT REST ON TOP OF FLOW SENSOR CABLE

7 FLOW SENSOR
NTS

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

LANDSCAPE
IRRIGATION DETAILS

SHEET REFERENCE NUMBER:
SD-L103
36 OF 68

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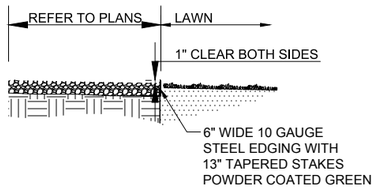
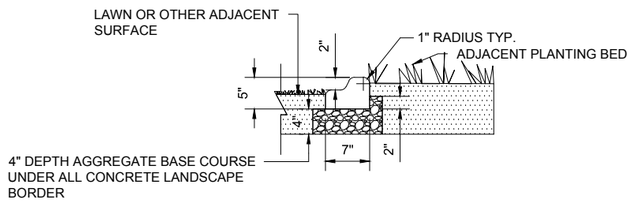


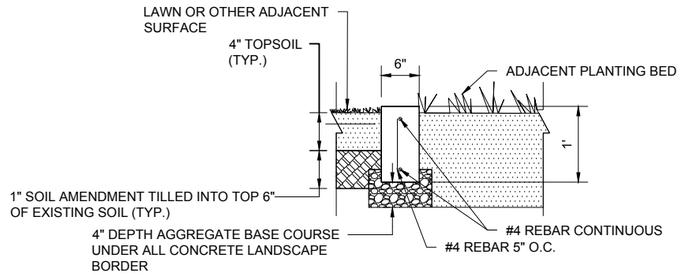
1 STEEL LANDSCAPE EDGER

SCALE: 1"=1'



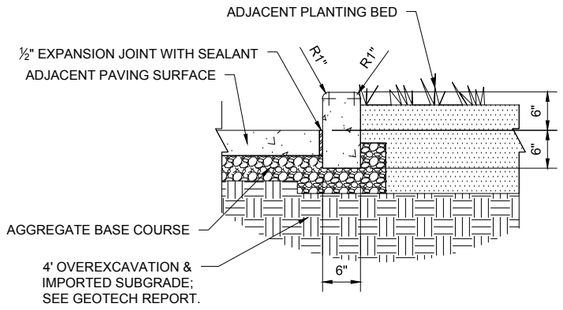
2 CONCRETE LANDSCAPE BORDER ALTERNATIVE 1

SCALE: 1"=1'



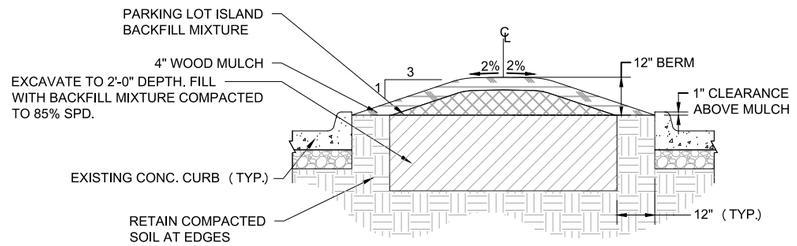
3 CONCRETE LANDSCAPE BORDER ALTERNATIVE 2

SCALE: 1"=1'



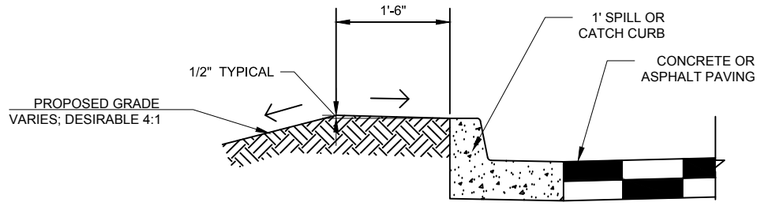
4 6" VERTICAL CURB AT PLANTING BED

SCALE: 1"=1'



5 BERM AND TOP SOIL PLACEMENT AT MEDIAN

SCALE: ½"=1'



6 TYPICAL BENCH BEHIND CURB

SCALE: ½"=1'

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

LANDSCAPING
EDGE TREATMENTS AND FINE GRADING

SHEET REFERENCE NUMBER:
SD-L104

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SHELTERS,

1. IF SHELTERS OTHERS THAN THOSE SHOWN HEREIN ARE PROPOSED, THE OPERATIONS AND MAINTENANCE RESPONSIBILITIES FOR THEIR UPKEEP NEED TO BE WORKED OUT WITH RTD'S MAINTENANCE OF WAY AND FACILITIES MAINTENANCE GROUPS PRIOR TO CONSTRUCTION.
2. LOCAL AUTHORITIES MAY HAVE REGULATIONS THAT GOVERN THE DESIGN AND CONSTRUCTION OF SHELTERS.

DRIVER RELIEF STATIONS

1. DRIVER RELIEF STATIONS MUST BE PROVIDED AT LOCATIONS DETERMINED BY RTD OPERATING DIVISIONS. REFER TO THE RTD COLLECTIVE BARGAINING AGREEMENT.
2. DRIVER RELIEF STATIONS WILL BE USED BY RTD PERSONNEL ONLY.
3. DRIVER RELIEF STATIONS SHALL BE ADA COMPLIANT.
4. DRIVER RELIEF STATIONS PROVIDE RESTROOM FACILITIES AS A BARE MINIMUM. AT OTHER LOCATIONS, THEY INCORPORATE CONTROLS FOR ON-SITE ELECTRICAL AND TELECOMMUNICATION SYSTEMS. THE NUMBER OF RESTROOMS NEEDED IS BASED ON HOW MANY PERSONNEL ARE EXPECTED TO USE THE FACILITIES.
5. THE DRIVER RELIEF STATIONS MAY BE TREATED AS A BUILDING BY LOCAL AUTHORITIES, AND REQUIRE A BUILDING PERMIT.
6. ALL FINISHES TO BE VANDAL RESISTANT.
7. DESIGNERS TO PRODUCE DETAILED DRAWINGS SHOWING ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS, TAKING INTO ACCOUNT LOCAL SITE CONDITIONS, PROJECT BUDGET, LOCAL REQUIREMENTS, APPLICABLE LAWS, INDUSTRY CODES, AND STANDARDS, AND RTD DESIGN CRITERIA. THE RESULTING FACILITY MUST BE CAPABLE OF BEING OPERATED AND MAINTAINED IN AN EFFICIENT AND RELIABLE MANNER.
8. ALL DOOR LOCKING SYSTEMS SHALL BE COMPLIANT WITH THE SYSTEMS BEING USED BY RTD SAFETY AND SECURITY DEPARTMENT, AND RTD FACILITIES MAINTENANCE DEPARTMENT. THESE SYSTEMS MAY BE DIFFERENT BASED ON HOW THE INTERNAL SPACE IS PROPOSED TO BE USED.
9. THE LIGHTING LEVEL SHOULD BE 15 FOOTCANDLES AVERAGE FOR THE RESTROOM, 20 FOOTCANDLES FOR THE MECHANICAL/ELECTRICAL ROOM. THESE DESIGN VALUES SHALL BE CALCULATED AT FINISH FLOOR LEVEL.
10. TANKLESS WATER HEATERS SHALL BE USED.
11. BUILDING SHALL HAVE GUTTERS AND SNOW GUARDS.

NO.	REVISIONS	BY	DATE
----	----	JV	----

DESIGNED BY: JV DATE: ######
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APPROVED BY: HJS DATE: ######

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RTD ENGINEERING DIVISION
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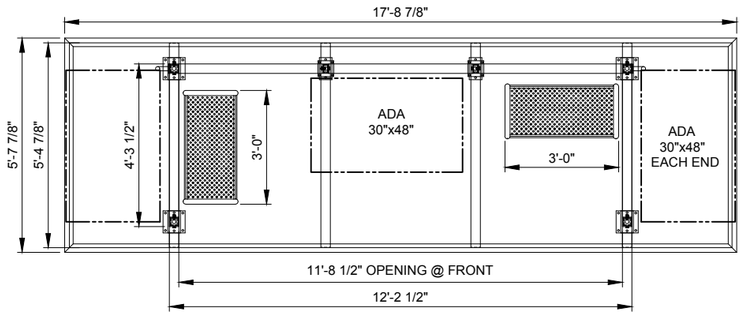
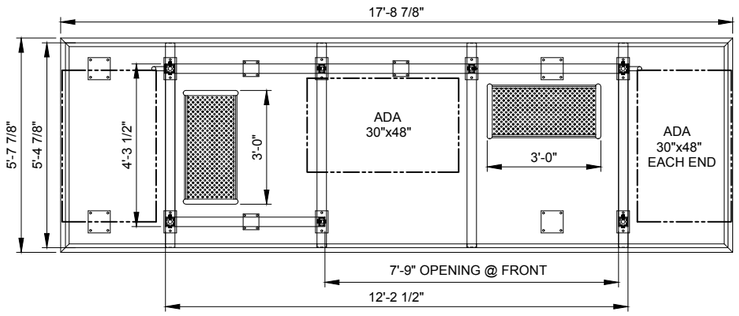
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURE
GENERAL INFORMATION

SHEET REFERENCE NUMBER:
SD-A100



OPTION 1



OPTION 2 - FRONT ENTRANCE SHIFTED TO RIGHT SIDE

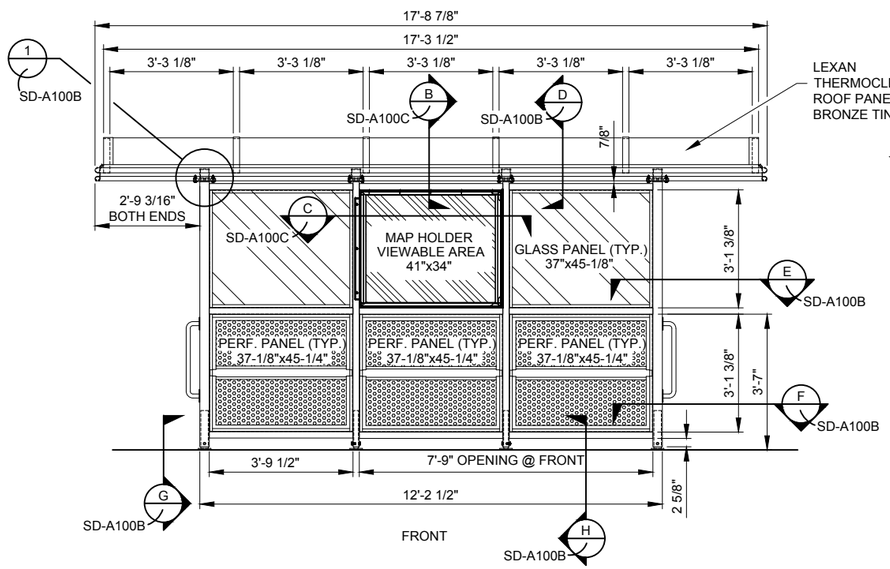
NOTES:

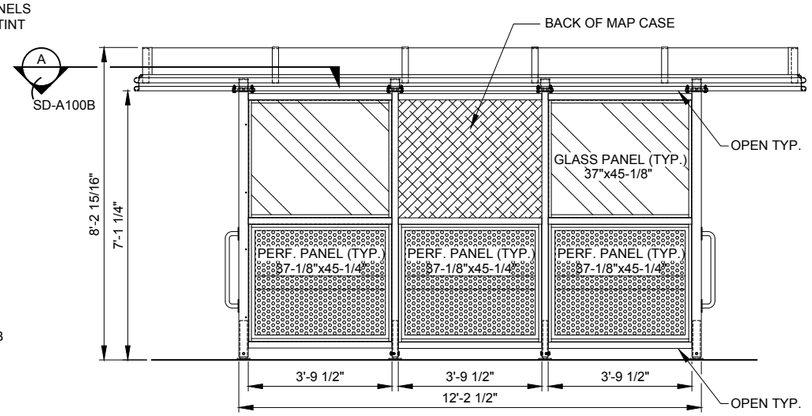
1. UNLESS OTHERWISE NOTED, SHELTER TO BE ALL ALUMINUM OF ALLOY 6063-T5.
2. ALL HOLES SHALL BE DRILLED OR PUNCHED
3. ALUMINUM WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STANDARD D1. 2-97. ELECTRODES SHALL CONFORM TO AWS/SFA 5.10 ER4043.
4. ALL WELDING TO BE DONE BY AWS CERTIFIED WELDERS AT TOLAR MANUF. CO. INC. FACILITY AT 258 MARIAH CIRCLE, CORONA, CA 92879 UNDER THE SUPERVISION OF THE RECORD DESIGN ENGINEER.
5. SHELTER TO BE ANCHORED WITH STAINLESS STEEL HILTI, 1/2" X 4 1/2"
6. SCREEN TO BE ALL ALUMINUM PERFORATED METAL 1/8 THK, 1/4 DIA. HOLES ON 3/8" CENTERS
7. ALL GLAZING TO BE 3/8" CLEAR TEMPERED SAFETY GLASS
8. ALL FASTENERS TO BE STAINLESS STEEL
9. SHELTER COMPLIES WITH ALL CONSTRUCTION STANDARDS OF DENVER CO.. SHELTER COMPLIES WITH ADA HANDICAP REQUIREMENTS.
10. SHELTER STD. COLOR SHALL BE RAL 6008 FIR GREEN.

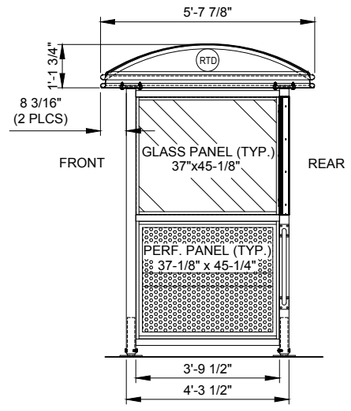
FLOOR PLANS

SCALE: 1/2" = 1'-0"

NOTE: FLOOR PLAN - OPTION 3
FRONT ENTRANCE SHIFTED
TO LEFT SIDE (NOT SHOWN)







ELEVATION PLANS

SCALE: 1/2" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURE
PEDESTRIAN SHELTER PLAN OPTIONS

SHEET REFERENCE NUMBER:
SD-A101A
39 OF 68

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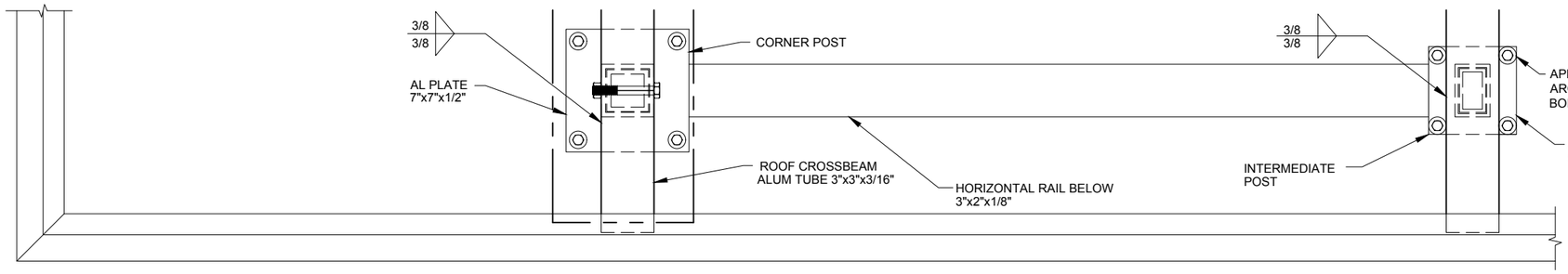
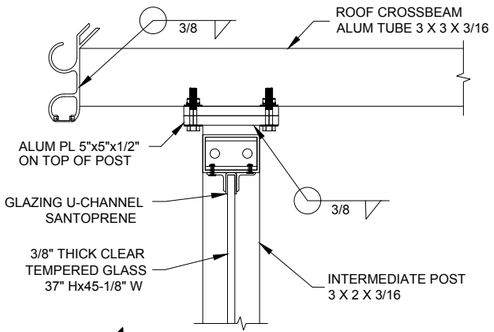
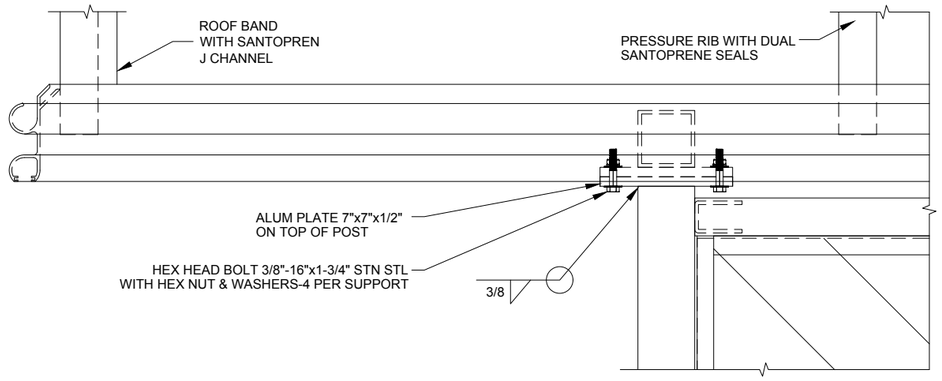


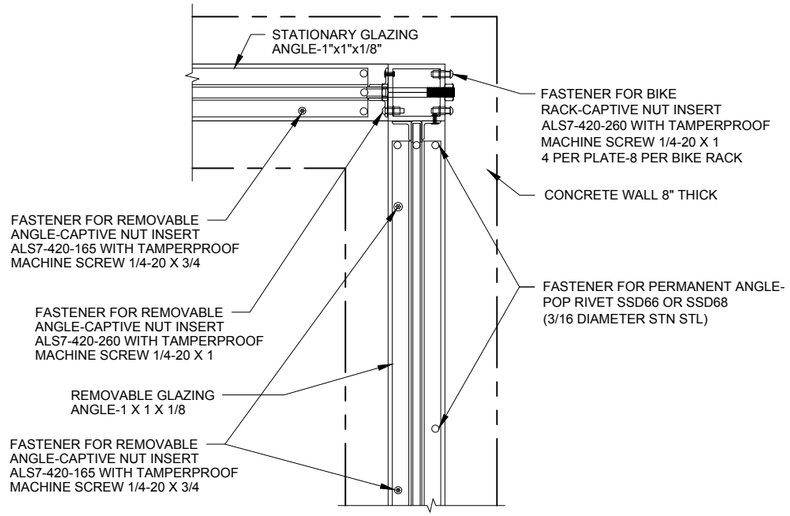
A SECTION A - ROOF PLATE VIEW
NTS
SD-A100A



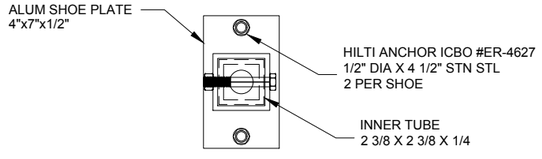
D SECTION D - GLAZING
NTS
SD-A100A



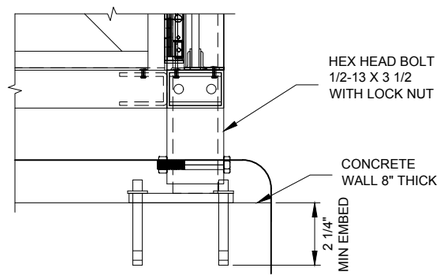
1 DETAIL 1 - ROOF TO POST CONNECTION
NTS
SD-A100A



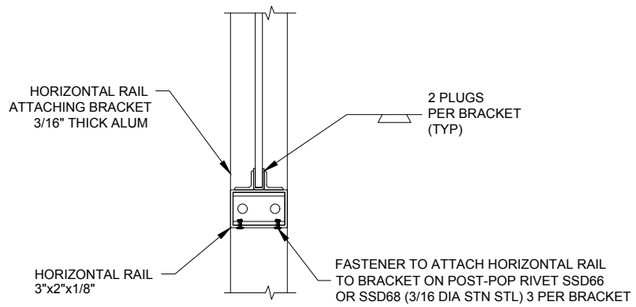
E SECTION E - GLAZING ANGLE SECURING
NTS
SD-A100A



F SECTION F - SHOE VIEW
NTS
SD-A100A



G SECTION G - ANCHORING AND POST/SHOE CONNECTION
NTS
SD-A100A



H SECTION H - GLAZING SECTION
NTS
SD-A100A

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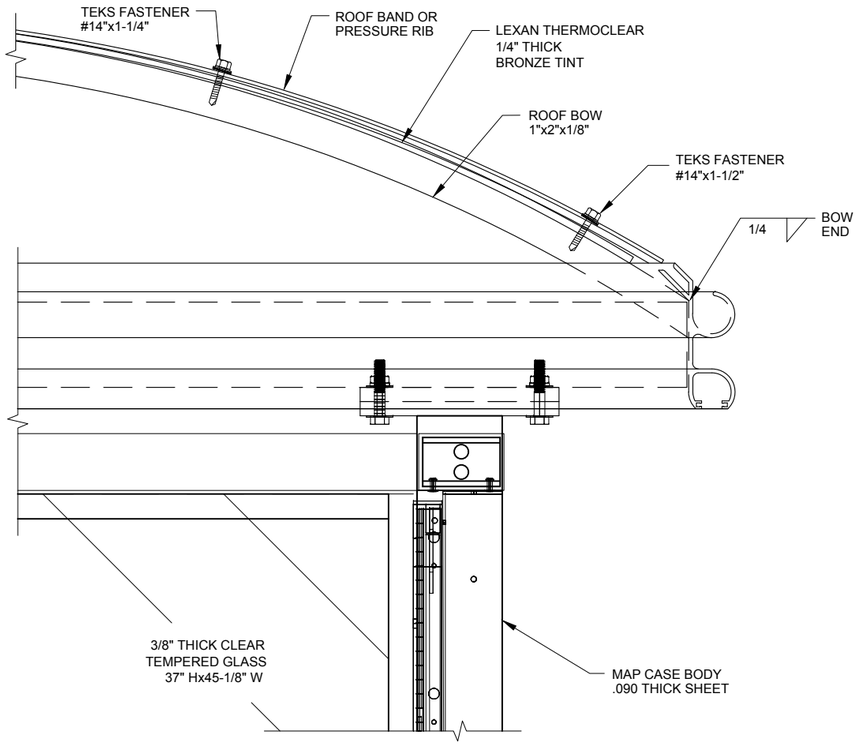
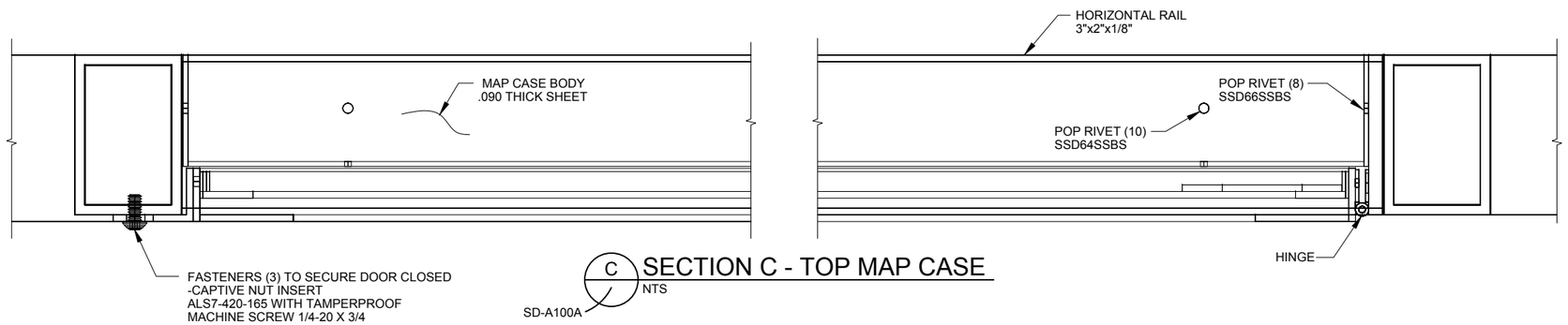
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURE
PEDESTRIAN SHELTER DETAILS AND SECTIONS

SHEET REFERENCE NUMBER:
SD-A101B
40 OF 68



B SECTION B - SIDE MAP CASE
NTS
SD-A100A



C SECTION C - TOP MAP CASE
NTS
SD-A100A

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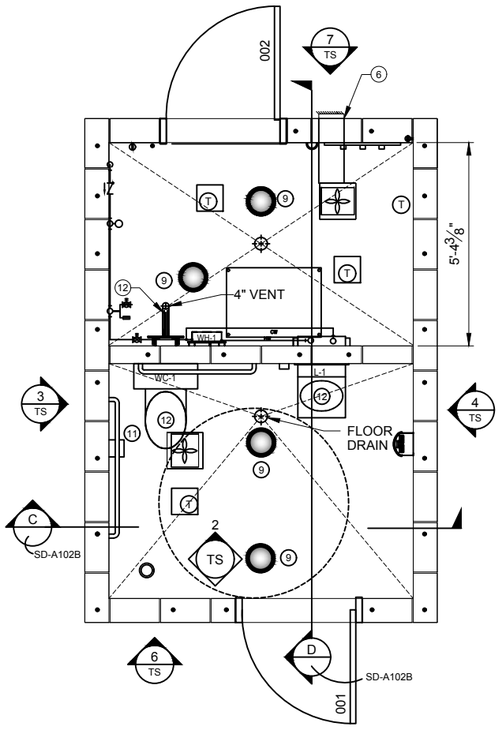
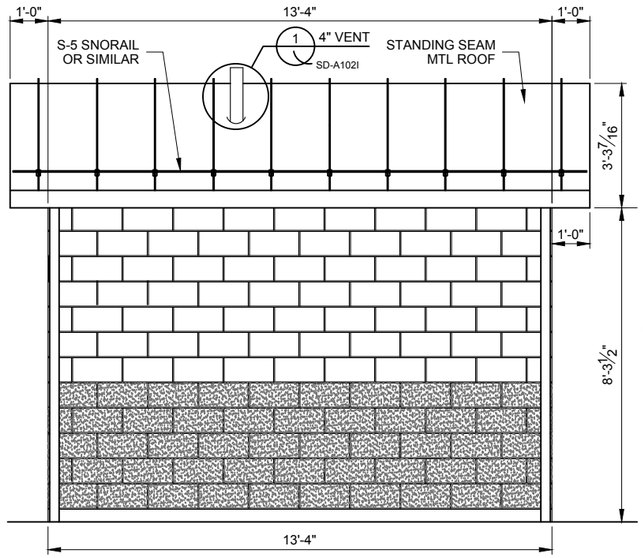
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURE
PEDESTRIAN SHELTER MAP CASE DETAILS

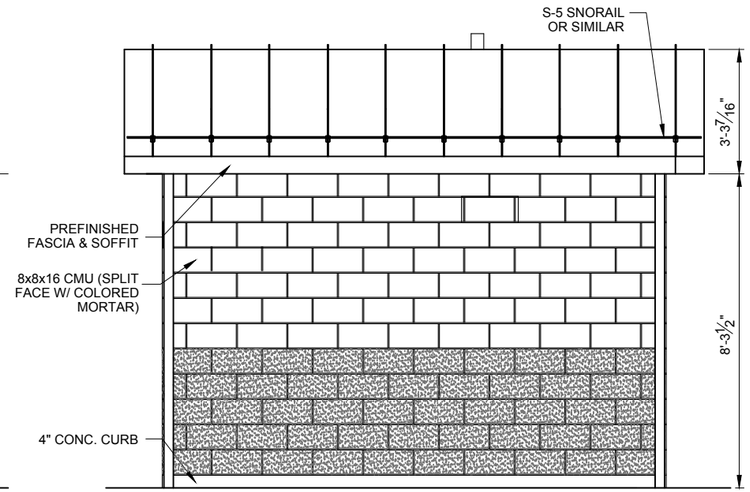
SHEET REFERENCE NUMBER:
SD-A101C
41 OF 68



1 DRIVER RELIEF STATION-PLAN
SCALE: 1/2" = 1'-0"



3 DRIVER RELIEF STATION-EXT. ELEV.
SCALE: 1/2" = 1'-0"



4 DRIVER RELIEF STATION-EXT. ELEV.
SCALE: 1/2" = 1'-0"

PLAN NOTES:

1. COORDINATE LOCATION OF ALL EQUIPMENT WITH MECHANICAL AND ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL AND MECHANICAL PLANS FOR FURTHER INFORMATION.

2. NO ELECTRICAL EQUIPMENT OR CONDUIT ALLOWED DIRECTLY BELOW ANY DOMESTIC WATER PIPING OR EQUIPMENT.

3. LOCATION AND DIMENSIONS OF MECHANICAL AND ELECTRICAL EQUIPMENT AND CONNECTIONS FOR REFERENCE ONLY. CONTRACTOR TO DETERMINE EXACT LOCATION AS REQUIRED FOR PROPER INSTALLATION.

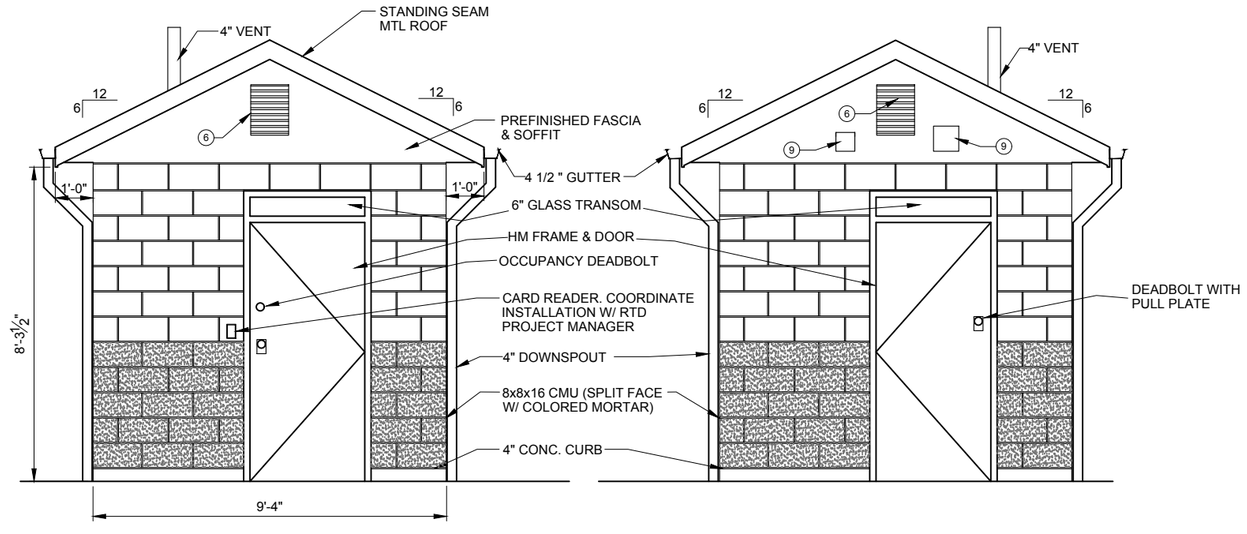
4. ELECTRICAL, SEWER AND DOMESTIC WATER STUB UP LOCATIONS DETERMINED BY ELECTRICAL AND MECHANICAL CONTRACTOR DEPENDENT SITE CONDITIONS. COORDINATE ALL UTILITY SERVICE ENTRANCE LOCATIONS WITH AUTHORITY HAVING JURISDICTION, GENERAL CONTRACTOR AND RTD PROJECT MANAGER.

5. EQUIPMENT PART NUMBERS SELECTED SPECIFICALLY FOR FUNCTIONALITY AND USE OF COMMON PARTS FOR MAINTENANCE. ALTERNATES ALLOWED ONLY BY APPROVAL THROUGH SUBMITTAL PROCESS.

6. ALL DOWNSPOUTS SHALL BE CONNECTED TO STORM SEWER SYSTEM OR DAYLIGHTED TO LANDSCAPE AREA.

ELEVATION FLAG NOTES:

1. RE: DRS IV - ELECTRICAL
2. RE: DRS IV - ELECTRICAL
3. RE: DRS III - MECHANICAL
4. RE: DRS III - MECHANICAL
5. RE: DRS III - MECHANICAL
6. PROVIDE 12" X 16" LOUVER VENT W/INSECT SCREEN. CONSTRUCTION METALS INC. 12"X16" GALVANIZED CENTER FLANGE GABLE LOUVER MODEL: #GLFC1212G OR APPROVED EQUAL.
7. PROVIDE IN MECHANICAL ROOM A 3/4 " X 1'-0" X 3'-0" PLYWOOD EQUIPMENT PANEL ON 2 UNISTRUT CHANNEL P 1000T.
8. RE: DRS III MECHANICAL
9. EXHAUST FAN OUTLET, RE: MECHANICAL
10. RE: DRS III MECHANICAL
11. TOILET PAPER HOLDER, BRADLEY #5402, MOUNT WITH #8-3/4" WOOD SCREW WITH EXPANSION SHIELD AT 24" A.F.F.
12. RE: DRS III MECHANICAL
13. ADD INTERIOR PRIVACY LOCK FOR OCCUPANT



6 DRIVER RELIEF STATION-EXT. ELEV.
SCALE: 1/2" = 1'-0"

7 DRIVER RELIEF STATION-EXT. ELEV.
SCALE: 1/2" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II PLAN AND ELEVATIONS

SHEET REFERENCE NUMBER:
SD-A102A
42 OF 68

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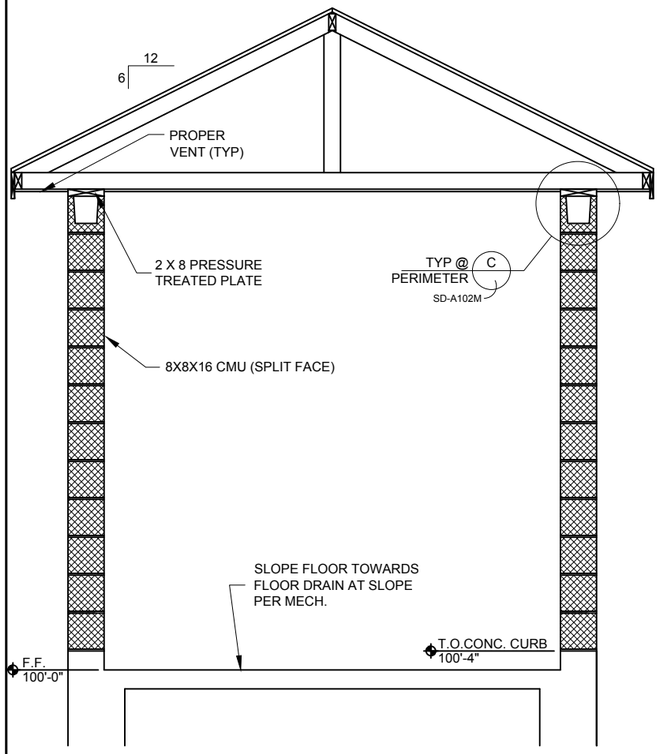
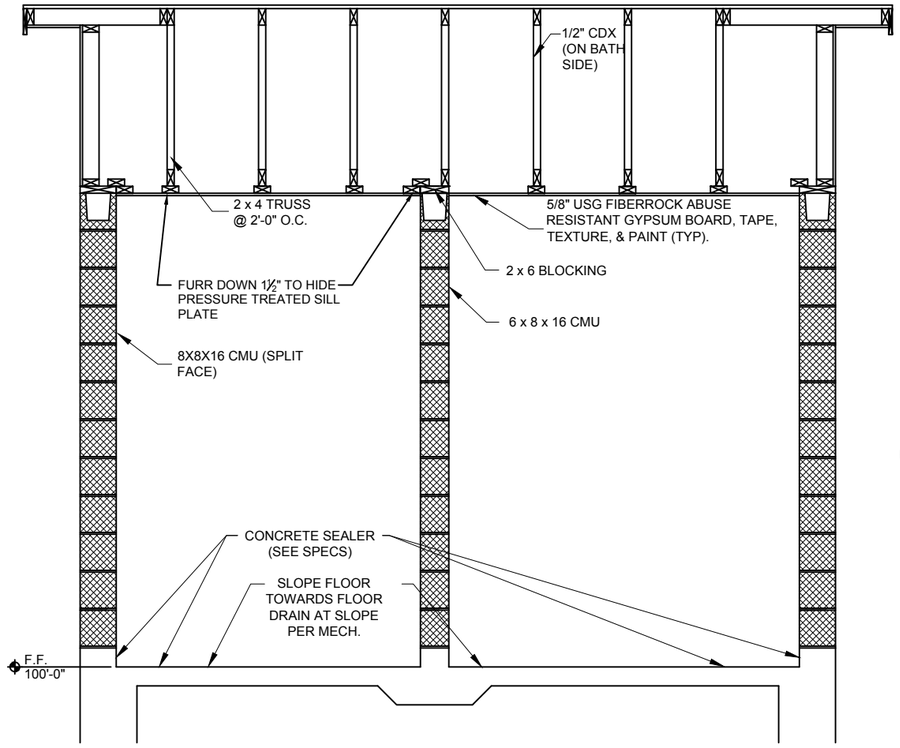
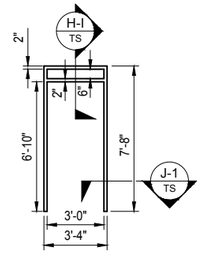


C DRIVER RELIEF STATION-SECTION
SCALE: 3/4" = 1'-0"

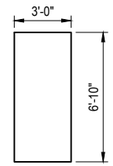


D DRIVER RELIEF STATION-WALL SECTION
SCALE: 3/4" = 1'-0"



FRAME TYPE

B H.M. FRAME
SCALE: 1/4" = 1'-0"



DOOR TYPE

A INSULATED H.M. FRAME
SCALE: 1/4" = 1'-0"

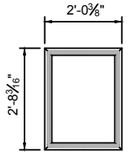
DOOR SCHEDULE

DOOR	SIZE	DOOR TYPE	FRAME TYPE	MAT'L	FINISH	HEAD	JAMB	RATING	VENT	REMARKS
001	3070 1 3/4	A	B	HM	PAINTED	H-1	J-1	NONE	NO	INSULATED
002	3070 1 3/4	A	B	HM	PAINTED	H-1	J-1	NONE	YES	INSULATED

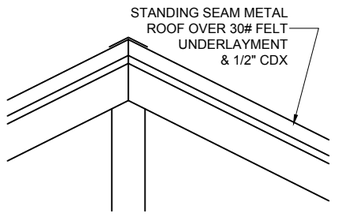
HARDWARE SCHEDULE

OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
001	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - ELEC. STRIKE 1006-C-S-630		*ASSA	LOCK
		NET2 CONTROLLER W/BATERY BACKUP		*PAX	
		1.0 - 26BIT HID READER RP40		*PAS	
		1.0 B250,SFIC DEADLATCH		SCHL	
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN-4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP
		1.0 - OCCUPANCY INDICATOR		*AO	DEADBOLT
OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
002	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - B719		SCHL	DEADBOLT
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN - 4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP

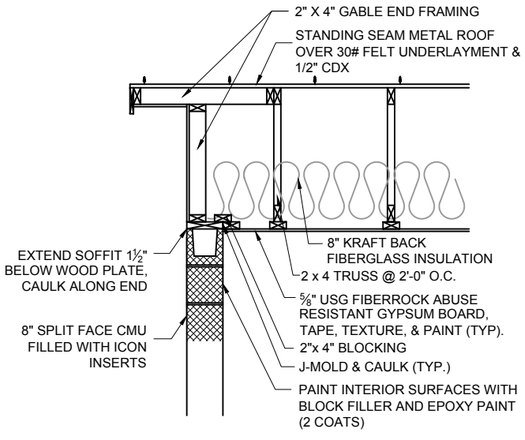
* ASSA ABLOY
* PAXTON
* PHYSICAL ACCESS SOLUTIONS
* ALLEGION
* ARCHITECTURAL OPENINGS



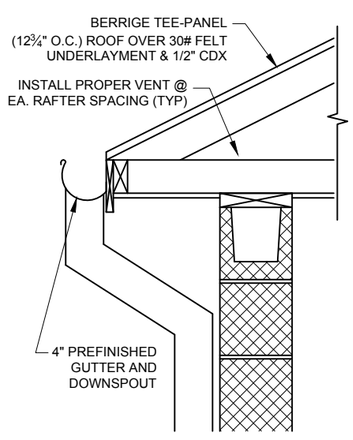
E 22" x 30" ACCESS PANEL
SCALE: 1/2" = 1'-0"



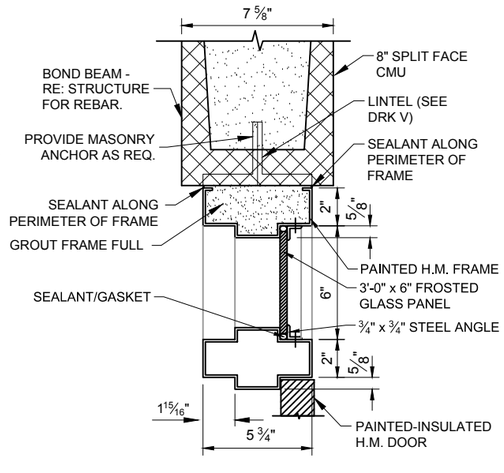
1 RIDGE DETAIL
SCALE: 1-1/2" = 1'-0"



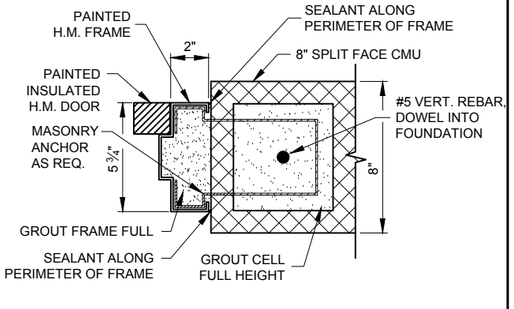
2 GABLE DETAIL
SCALE: 3/4" = 1'-0"



3 EAVE DETAIL
SCALE: 1 1/2" = 1'-0"



H-1 DOOR HEAD W/ TRANSOM
SCALE: 3" = 1'-0"



J-1 DOOR JAMB
SCALE: 3" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II SECTIONS AND DETAILS

SHEET REFERENCE NUMBER:
SD-A102B
43 OF 68

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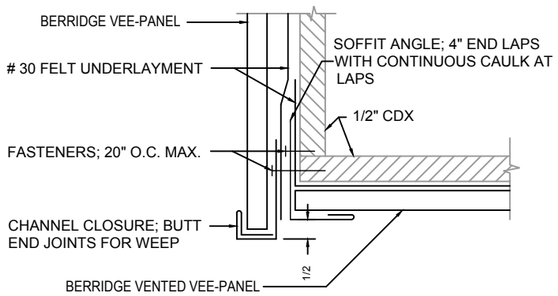
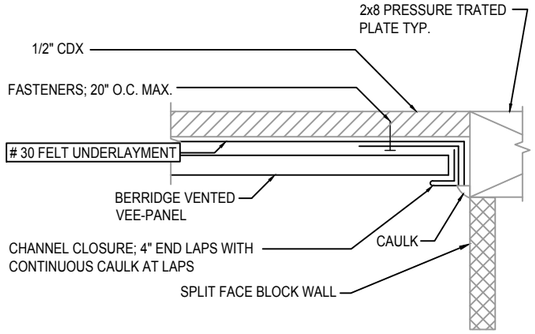


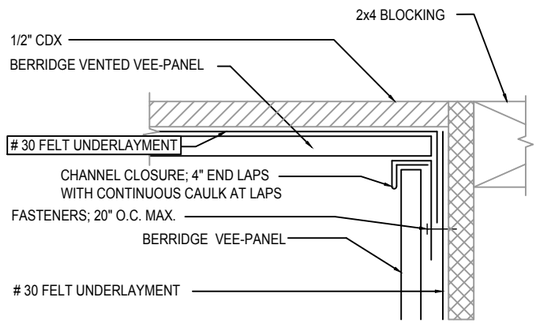
1. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ENGINEER.

A FASCIA/SOFFIT DETAIL
NOT TO SCALE



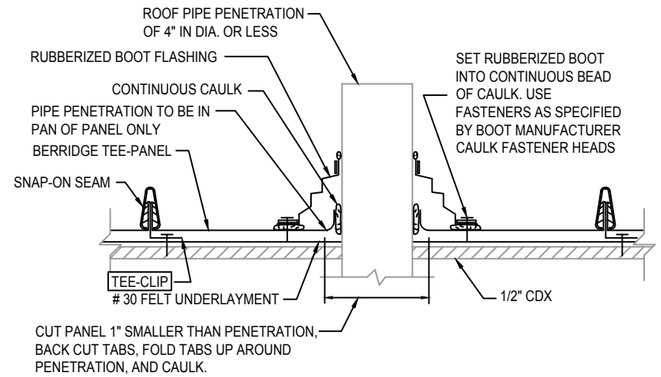
1. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ENGINEER.

B SOFFIT TO BUILDING DETAIL
NOT TO SCALE



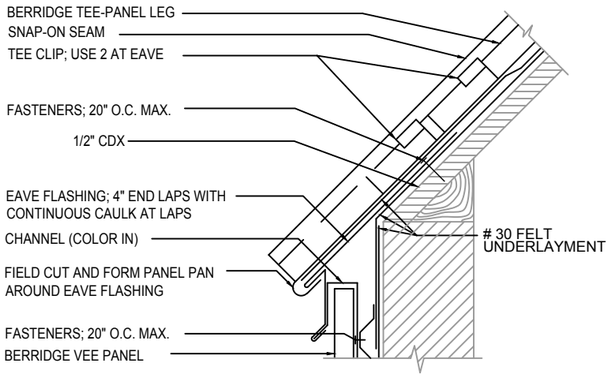
1. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ENGINEER.

C SOFFIT TO WALL PANEL DETAIL
NOT TO SCALE



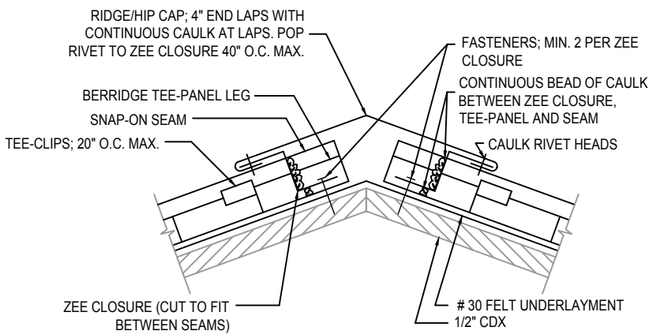
1. CUT HOLE TO ALLOW FOR THERMAL MOVEMENT IF PANELS ARE 30'-0" OR LONGER.
2. IF PIPE IS MADE OF METAL, IT MUST BE PAINTED TO PREVENT RUST RUN-OFF FROM STAINING PANELS.
3. POSITION SQUARE BASED BOOTS IN A DIAMOND ORIENTATION WHERE POSSIBLE TO AID IN DIVERTING WATER.

H PIPE PENETRATION
NOT TO SCALE



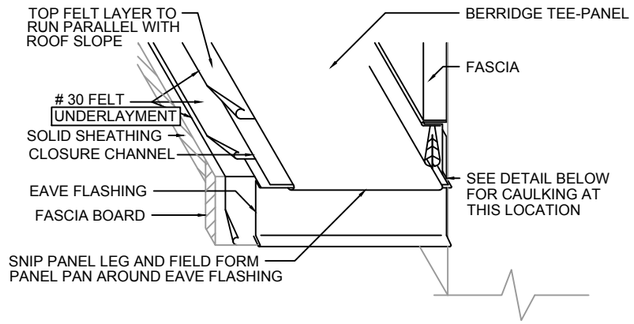
1. AS ROOF PANELS ARE INSTALLED, SNIP APPROXIMATELY 3/8" SECTION FROM EACH PANEL LEG AT EAVE, AND FORM PANEL PAN AROUND EAVE FLASHING.
2. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ENGINEER.

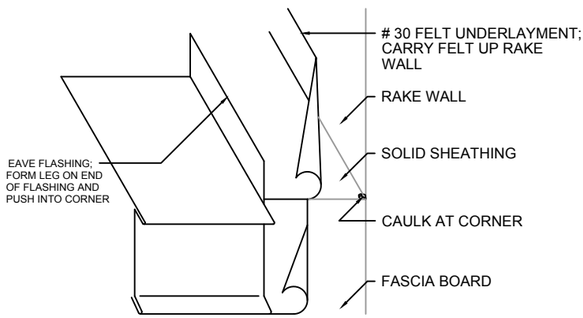
E EAVE DETAIL
NOT TO SCALE



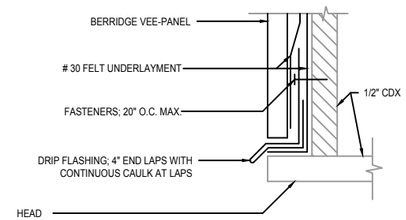
1. FIELD CUT ZEE CLOSURES TO FIT BETWEEN SEAMS.
2. ALL FELTING UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ENGINEER.

F RIDGE AND HIP DETAIL
NOT TO SCALE





G RAKE AT EAVE DETAIL
NOT TO SCALE



1. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ENGINEER.

D HEAD DETAIL

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II ROOF DETAILS

SHEET REFERENCE NUMBER:
SD-A102C
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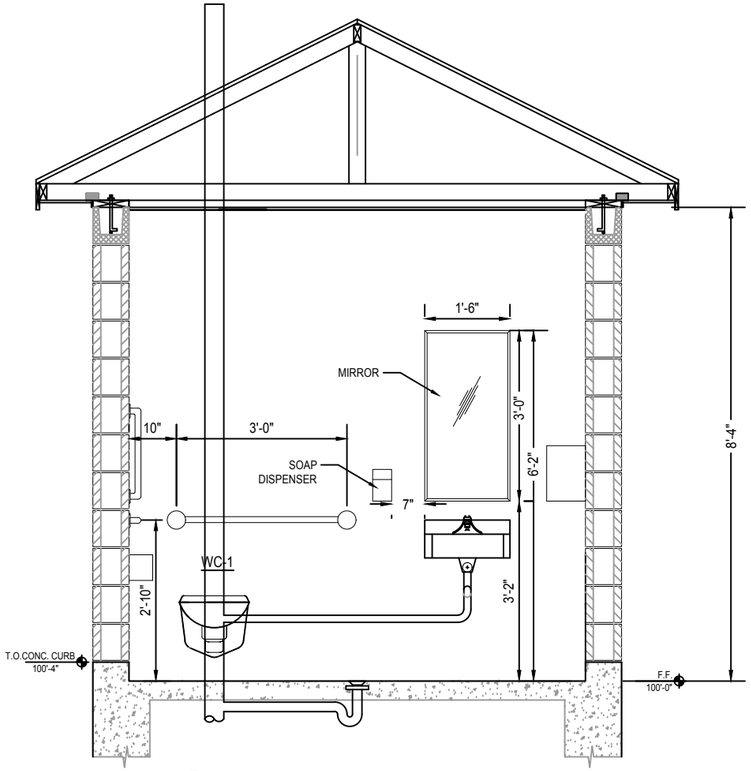
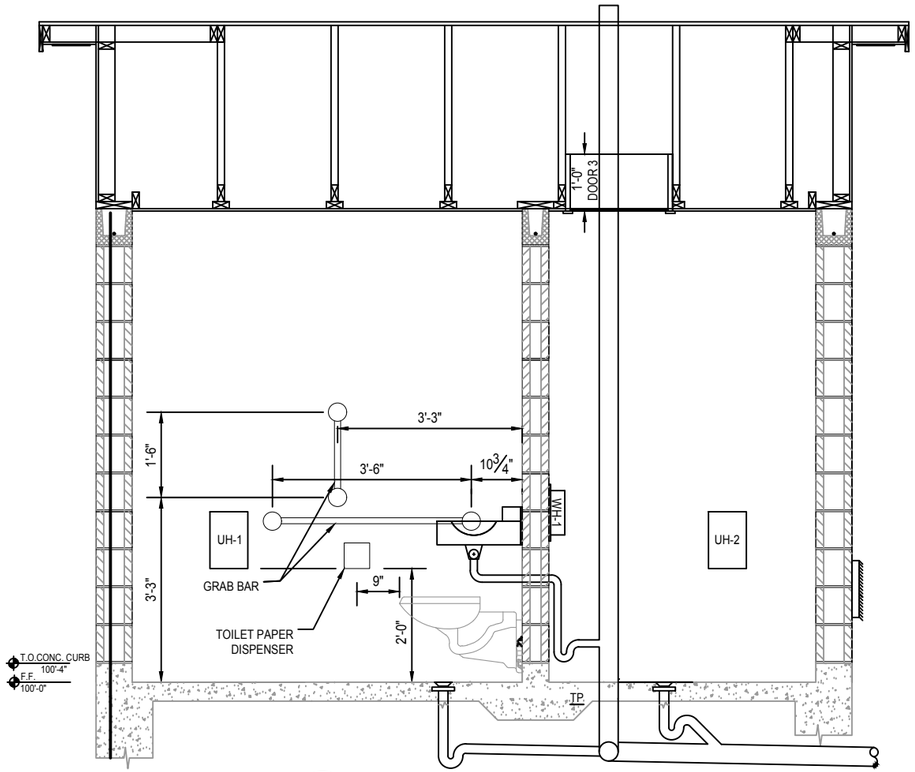


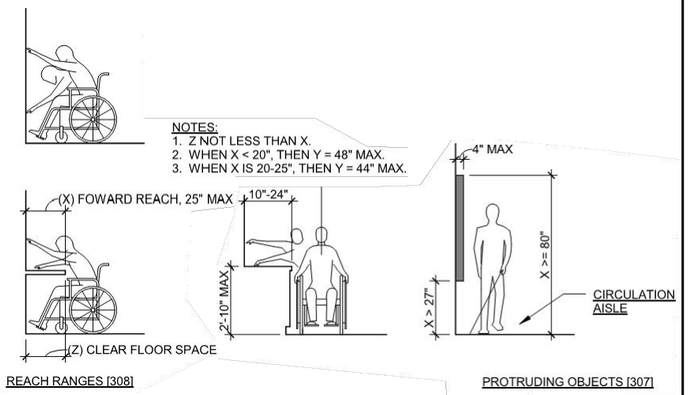
1 DRIVER RELIEF STATION SECTION
3/4"=1'-0"



2 DRIVER RELIEF STATION WALL SECTION
3/4"=1'-0"

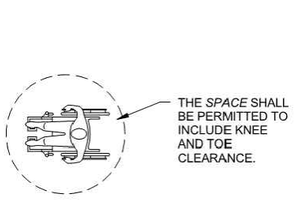
NOTES:

1. THE DRIVER RELIEF STATION IS DESIGNED TO BE COMPLIANT WITH ADAAG REGULATIONS. MATERIALS, FINISHES, AND FURNISHINGS TO COMPLY WITH ADAAG.
2. EXTERIOR DOORS TO HAVE DOOR STOPPERS.
3. MIRROR: BRADLEY MODEL 7405-1836.
4. GRAB BARS: 1-1/2" DIAMETER, BRUSHED STAINLESS STEEL
5. SOAP DISPENSER: TO BE INSTALLED BY RTD
6. TOILET PAPER DISPENSER: BRADLEY # 5402, MOUNT WITH #8-3/4" WOOD SCREW WITH EXPANSION SHIELD.
7. ELECTRIFIED HINGE INSTALLED MIDDLE LOCATION WITH CONDUIT PATH TO CEILING.

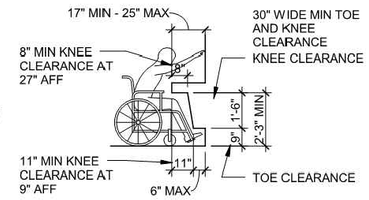


REACH RANGES [308]

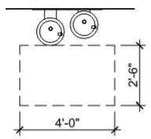
PROTRUDING OBJECTS [307]

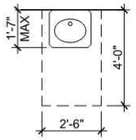


CIRCULAR TURNING SPACE

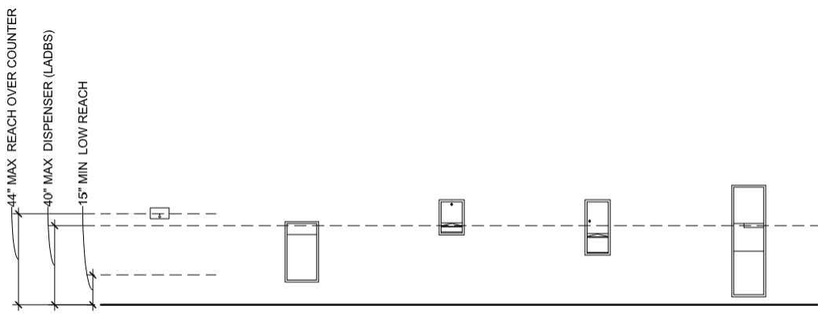


TOE AND KNEE CLEARANCES

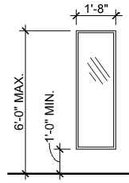




CLEAR FLOOR SPACE REQUIREMENTS

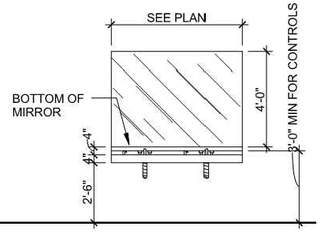


ACCESSIBLE DRINKING FOUNTAIN PLAN



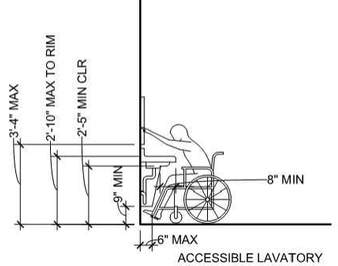
MIRROR (WALL MOUNT)

ACCESSIBLE SINK PLAN



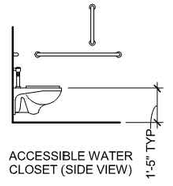
MIRROR ABOVE COUNTER

LAVATORIES ADJ TO A WALL SHALL BE MOUNTED 18" MIN (OR GREATER AS INDICATED ON PLANS) FROM ADJ WALL TO CENTERLINE OF FIXTURE.



ACCESSIBLE LAVATORY

WATER CLOSETS SHALL BE MOUNTED 18" FROM ADJACENT WALL OR TOILET PARTITION TO CENTERLINE OF FIXTURE.



ACCESSIBLE WATER CLOSET (SIDE VIEW)

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II EQUIPMENT MOUNTING HEIGHTS

SHEET REFERENCE NUMBER:
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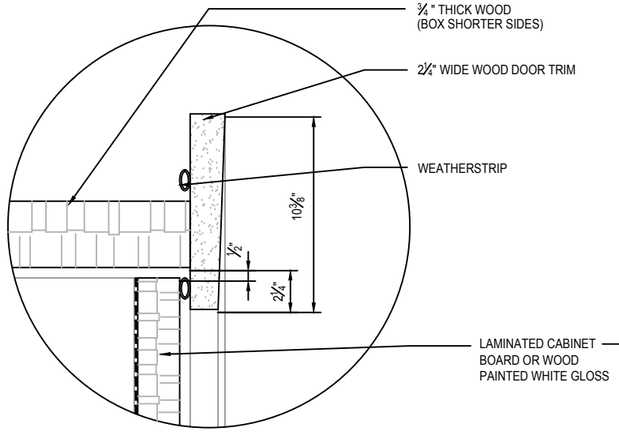
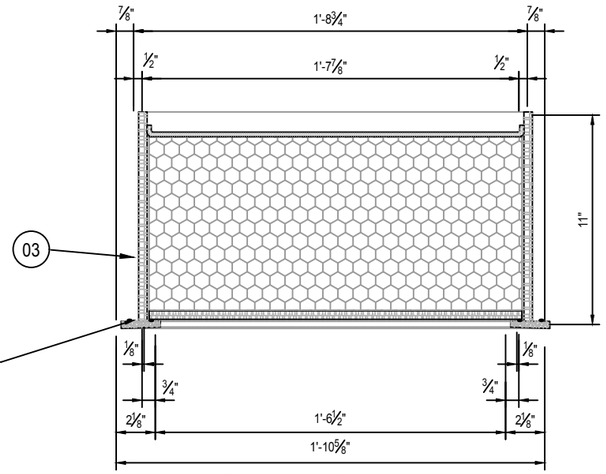
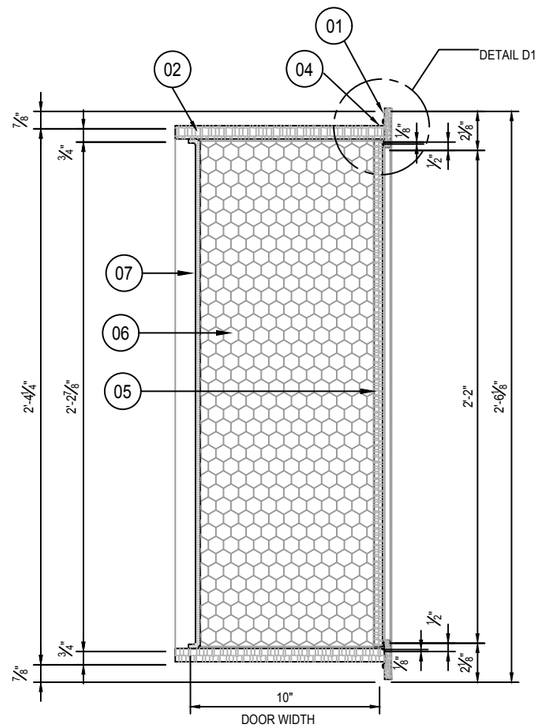


3 DETAIL D1
FULL SCALE

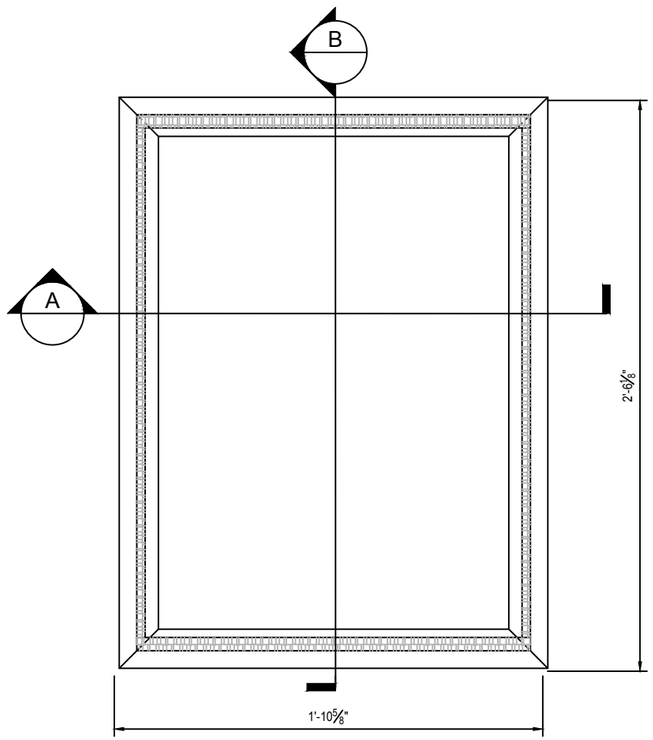


1 SECTION A
1 1/2"=1'-0"

ITEM	DESCRIPTION
01	56mm WIDE WOODEN DOOR TRIM ASSEMBLY
02	19mm THICK WOOD (BOX SHORTER SIDES)
03	12mm THICK WOOD (BOX LONGER SIDES)
04	WEATHER STRIP
05	LAMINATED CABINET BOARD OR WOOD PAINTED WHITE GLOSS
06	250mm THK EXPANDED POLYSTYRENE
07	SEALING GASKET- 6mm THK RUBBER PIPE/DUCT INSULATION



4 SECTION B
1 1/2"=1'-0"



2 PLAN VIEW - ATTIC ACCESS DOOR ASSEMBLY
1 1/2"=1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS ATTIC DOOR

SHEET REFERENCE NUMBER:
SD-A102E
46 OF 68

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GENERAL NOTES:

1. DIMENSIONS FOR HEATING AND VENTILATION EQUIPMENT SHOWN ON ARCHITECTURAL DRAWINGS. EXACT LOCATIONS DETERMINED BY CONTRACTOR DEPENDING ON SITE CONDITIONS.

2. ALL HVAC INSTALLATION SHALL FOLLOW ASHRAE GUIDELINES, MEET ALL LOCAL AND AHJ STANDARDS WHICH MAY APPLY. ADDITIONAL STANDARDS, REFERENCES, AND REGULATORY REQUIREMENTS SHALL BE FOLLOWED AND INCLUDE, BUT NOT LIMITED TO, AMCA, ASME, SMACNA, IBC AND IMC.

3. ALL WORKMANSHIP SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE COMMERCIAL PRACTICES.

4. SOUND OR VIBRATION SHOWN TO BE UNACCEPTABLE BY OWNER SHALL BE CORRECTED BY CONTRACTOR BEFORE WORK IS CONSIDERED COMPLETE.

5. COORDINATE WORK WITH OTHER TRADES PRIOR TO ROUGH IN. VERIFY ELECTRICAL NEEDS AND PROVIDE ELECTRICAL REQUIREMENTS TO ELECTRICAL CONTRACTOR PRIOR TO PURCHASE OF MATERIAL. VERIFY ALL WALL, CEILING OR ROOF PENETRATIONS WITH GENERAL CONTRACTOR PRIOR TO ROUGH IN. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND ALL EQUIPMENT INSTALLATION REQUIREMENTS.

6. VERIFY AND DEMONSTRATE PROPER EQUIPMENT OPERATION AND PROPER TEMPERATURE CONTROL WITH TEST PROCEDURE PROVIDED BY CONTRACTOR AND APPROVED BY OWNER. UNLESS OTHERWISE SPECIFIED, MECHANICAL ROOM TEMPERATURE RANGE SHALL BE WITHIN 45 TO 100 DEGREES FAHRENHEIT, AND RESTROOM TEMPERATURE RANGE SHALL BE WITH IN 60 TO 100 DEGREES FAHRENHEIT.

7. DUCT SIZE, REGISTER SIZE, FACE VELOCITY AND OTHER DESIGN PARAMETERS ARE GUIDELINES FOR PROPER OPERATION. VARIATIONS ON EQUIPMENT SIZES OR TYPES, MANUFACTURER, DUCT SIZES, NET FREE AIR MOVEMENT AND OTHER SUCH VARIABLES ARE ALLOWED BY FOLLOWING THE PROPER SUBMITTAL AND SUBSTITUTION APPROVAL PROCESS FOUND IN THE TECHNICAL SPECIFICATIONS. EQUIVALENT PARAMETERS AND CHARACTERISTICS MUST BE SHOWN ALONG WITH REASONING AND JUSTIFICATION FOR CHANGE.

MECHANICAL LEGEND

ABBR.	SYMBOL	DESCRIPTION
	T	THERMOSTAT
		EXHAUST OR RETURN DUCT UP CROSS SECTION
		SUPPLY DUCT UP CROSS SECTION
		SUPPLY DUCT DOWN CROSS SECTION
		EXHAUST OR RETURN DUCT DOWN CROSS SECTION
		LOUVER, REGISTER OR GRILLE
		LOUVER, REGISTER OR GRILLE
		AIRFLOW SUPPLY
		AIRFLOW EXHAUST OR RETURN
	UH	FAN FORCED UNIT HEATER SEPARATE THERMOSTAT
		EXHAUST FAN
		NOT USED

SECTION NUMBER
SHEET NUMBER - WHERE SECTION IS SHOWN

(NOT ALL SYMBOLS SHOWN ARE USED ON THESE DRAWINGS)

FLAG NOTES:

1. PLUMBING EQUIPMENT SHOWN FOR REFERENCE ONLY. SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION. NOT ALL DETAILS SHOWN. COORDINATE WORK WITH GENERAL CONTRACTOR AND RTD REPRESENTATIVE.

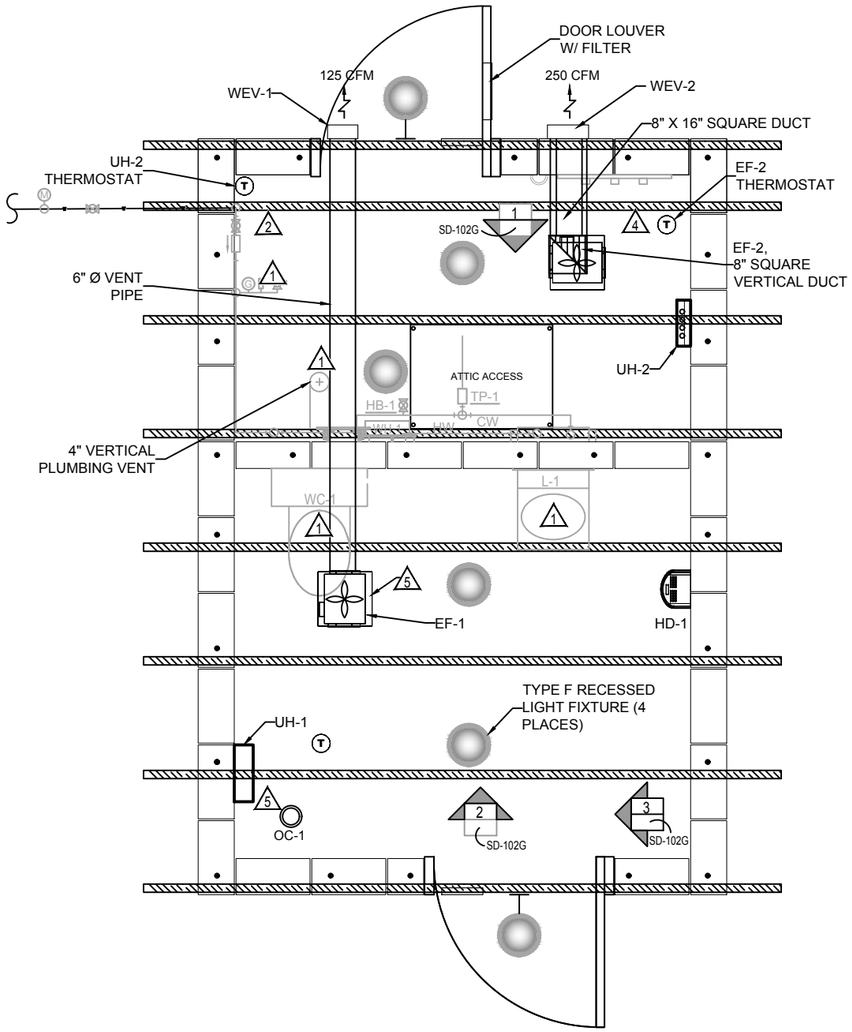
2. UNIT HEATER THERMOSTATS TO BE FIELD INSTALLED WITHIN RECESSED JUNCTION BOX PER ELECTRICAL DRAWINGS. COORDINATE LOCATION AND WIRING WITH ELECTRICAL CONTRACTOR. USE SPACERS TO PROVIDE AIR GAP BETWEEN COVER PLATE AND JUNCTION BOX. SET UH-1 TO 60° F. SET UH-2 TO TURN ON IF ROOM TEMPERATURE FALLS BELOW 40° F.

3. NOT USED.

4. LOCATE WALL MOUNTED THERMOSTAT FOR EF-2 60" A.F.F. NEAR I.T. TELCO BOARD. SET THERMOSTAT TO 90°F AND VERIFY EXHAUST FAN IS CAPABLE OF USING OUTSIDE AIR TO KEEP I.T. EQUIPMENT UNDER 104°F.

5. RESTROOM EXHAUST FAN TO BE OPERATED BY OCCUPANCY SENSOR OC-1.

6. ASSEMBLE 24GA DUCT WORK AS NEEDED TO MEET FIELD REQUIREMENTS FOR EXHAUST AIRFLOW CONNECTIONS, AND MEET EQUIVALENT CROSS-SECTIONAL AREAS SHOWN.



1 MECHANICAL PLAN VIEW
Scale: 3/4" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II MECHANICAL PLAN

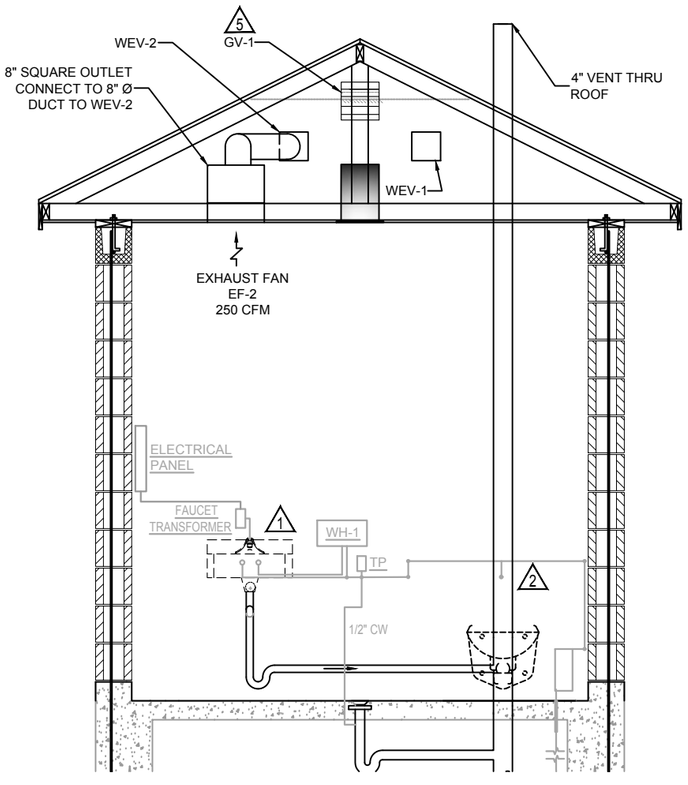
SHEET REFERENCE NUMBER:
SD-A102F
47 OF 68

MECHANICAL EQUIPMENT SCHEDULE

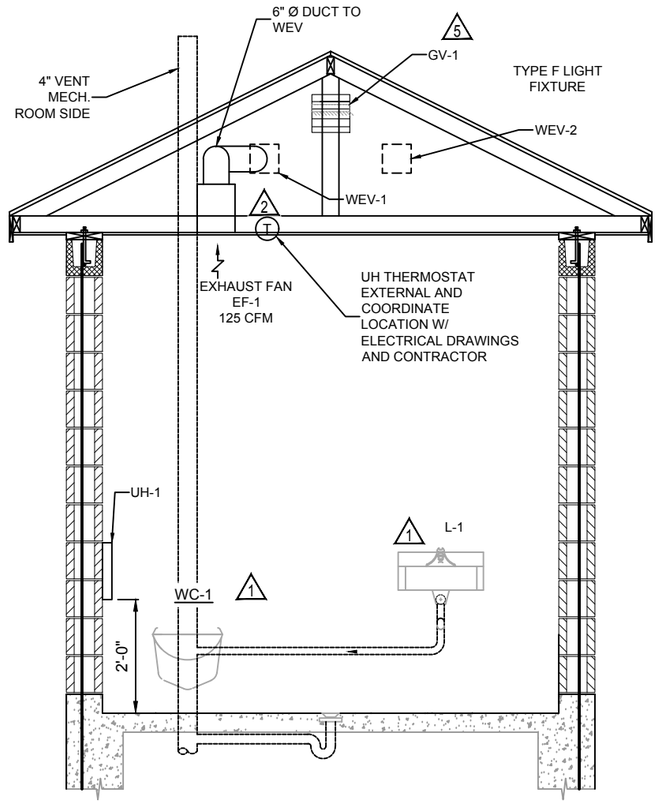
SYMBOL	DESCRIPTION
EF-1	EXHAUST FAN, GREENHECK MODEL SP-A125, 6" DIA. VERTICAL OUTLET, ALUMINUM GRILL, WITH DAMPER
EF-2	EXHAUST FAN, GREENHECK MODEL SP-A250, 8" SQUARE VERTICAL OUTLET, ALUMINUM GRILL, WITH DAMPER
GV-1	GABLE VENT, LOUVER W/BIRD SCREEN1'-0"W x 1'-4"H RUSKIN L63750 STEEL STATIONARY LOUVER DRAINABLE COLOR TO MATCH WALL PANEL
UH-1,2	FAN FORCED HEATER BERKO MODEL # VFK151F,1500 W, 120V, 12.5A UH-1 TO INCLUDE 14 GAUGE SECURITY FRONT COVER AND SURFACE MOUNTING SLEEVE
LV-1	OUTSIDE AIR SUPPLY, STEEL DOOR GRILL DAYTON MODEL 6WRH7, WITH BUG SCREEN AND FILTER
HD-1	HAND DRYER. DAYTON MODEL #3BU99 120 V, 60 HZ
WEV-1,2	GREENHECK HOODED WALL CAP WITH BACKDRAFT DAMPER WC-8 FOR EF-2 AND WC-6 FOR EF-1, COLOR TO MATCH WALL PANEL

FLAG NOTES:

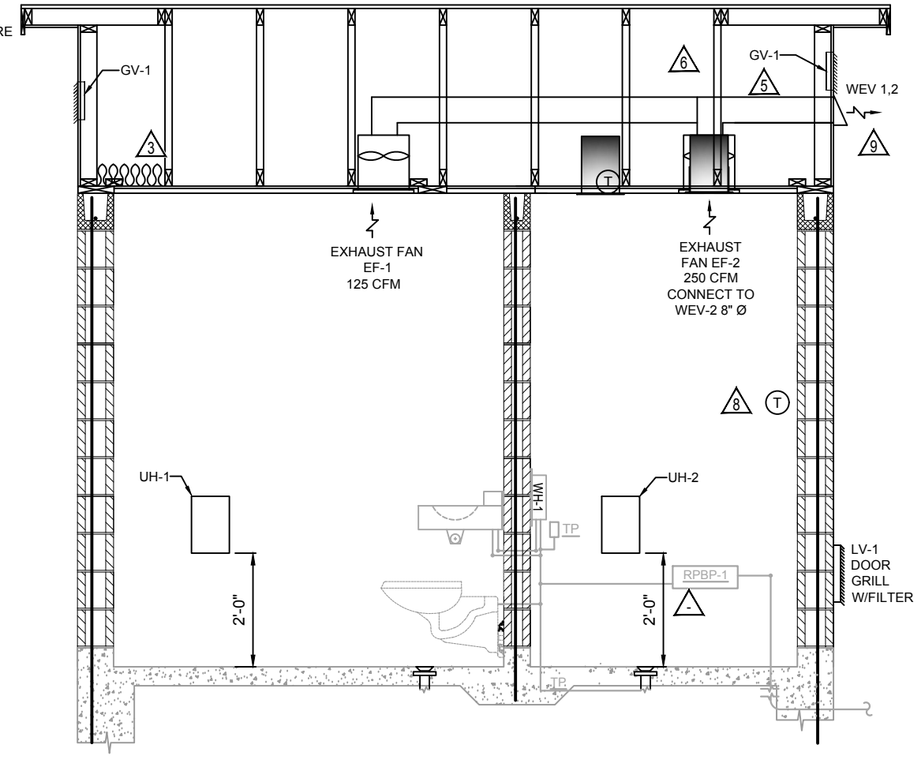
1. SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION. NOT ALL DETAILS SHOWN. STUB UP LOCATIONS AND PIPE ROUTING DETERMINED BY PLUMBING CONTRACTOR IN COORDINATION WITH GENERAL CONTRACTOR AND RTD REPRESENTATIVE.
2. UNIT HEATERS TO BE MOUNTED ON WALL 2FT ABOVE FLOOR, COORDINATE WITH ELECTRICAL, PLUMBING, & GENERAL CONTRACTOR. THERMOSTAT TO BE SEPARATED IN RECESSED JUNCTION BOX IN CEILING.
3. INSULATION, SEE ARCHITECURAL DRAWINGS.
4. RESTROOM EXHAUST FAN EF-1 TO BE CONNECTED TO EXHAUST DUCT ASSEMBLY WITH 6" DIAMETER 6"GALVANIZED DUCT. CONNECT TO WEV-1 W/BACKDRAFT DAMPER.
5. GABLE WALL VENT. SEE SHEET A102A FOR DETAILS.
6. ASSEMBLE 24GA DUCT WORK AS NEEDED TO MEET FIELD REQUIREMENTS FOR SUPPLY AND EXHAUST AIRFLOW CONNECTIONS, AND MEET EQUIVALENT CROSS-SECTIONAL AREAS SHOWN.
7. NOT ALL LIGHT FIXTURES OR OTHER ELECTRICAL EQUIPMENT SHOWN IN MECHANICAL DRAWINGS. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
8. WALL MOUNTED THERMOSTAT SHALL ACTIVATE EXHAUST FAN EF-2 IF ROOM TEMPERATURE IS AT OR ABOVE 90° F. LOCATE BENEATH COMMUNICATIONS BOARD.
9. INSTALL EF-1 & EF-2 DISCHARGE VENTS ON BACK OF BUILDING AT GABLE AS SHOWN ON ARCHITECTURAL DRAWING LOUVERED VENTS. SEE SHEET A102A.



1 MECHANICAL ROOM SECTION
Scale: 3/4" = 1'-0"



2 RESTROOM SECTION
Scale: 3/4" = 1'-0"



3 CROSS-SECTION
Scale: 3/4" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II MECHANICAL DETAILS

SHEET REFERENCE NUMBER:
SD-A102G
48 OF 68

PLUMBING EQUIPMENT SCHEDULE

SYM.	DESCRIPTION
FD-1,2	FLOOR DRAIN, JOSAM MODEL 30002-A.
L-1	BRADLEY HSL-1 WITH BUILT IN FAUCET, 4-8" WALL, 1/2" HW AND CW, 1-1/2" W CONNECTION WITH FACTORY MOUNTING BRACKETS AND BOLTS FOR 8" CMU WALL.
WC-1	TOILET, ACORN D 2105WITH OPEN FRONT HINGED TOILET SEAT LESS COVER SLOAN "ROYAL" EXPOSED CLOSET FLUSHOMETER MODEL 113-1.6, WITH CLOSET CARRIER SUPPORT, 4" VENT AND SEWER CONNECTION.
WH-1	BOSCH 2.5 GAL. WATER HEATER, INSTALL WITH UNIONS FOR MAINTENANCE.
CC-1	CLOSET CARRIER, JOSAM VERTICAL SINGLE ADJUSTABLE CARRIER MODEL 14464 WITH 4" VENT AND (2) 2" AUXILIARY INLETS -(1) PLUGGED & (1) ATTACHED TO SINK WASTE LINE.
HB-1	1/2" HOSE BIBB/DRAIN, 45DEG TILT.
RPBP-1	REDUCED PRESSURE BACKFLOW PREVENTER, FEBCO 1" MODEL 825YA, N-SHAPE BODY STYLE, 175 PSI MAX. WORKING PRESSURE, 32-140F TEMPERATURE RANGE, BRONZE VALVE BODY AND RELIEF VALVE , STAINLESS STEEL SPRINGS, NITRILE SEAT DISCS AND DIAPHRAGMS, WYE STRAINGER.
TP	TRAP PRIMER, ZURN Z1022, ½" UNION, CONNECTOR Z1023 2".
CV	CHECK VALVE, ¾" SPRING, APOLLO 6110401.
BV-1	BALL VALVE, 1" FULL PORT, WATTS SERIES FBV.
CS-1	CURB STOP, 1" CURB BALL VALVE ¼ TURN CHECK THREAD INTAKE,FLARE OUTPUT,MUELLER 300 SERIES. INCLUDE 7 FT. RETRACTABLE CURB BOX MUELLER H-10385 AND FOOT BASE H-10397.

PLUMBING LEGEND

ABBR.	SYMBOL	DESCRIPTION
		BALL VALVE
CV		CHECK VALVE, DOLE VALVE
		ELBOW UP
		ELBOW DOWN
		TEE UP
		TEE DOWN
		INDICATES PITCH DOWN
CW		DOMESTIC COLD WATER
HW		DOMESTIC HOT WATER
	W	BUILDING WATER SUPPLY
S,W	SS	SANITARY SEWER OR WASTE (BURIED)
V	V	PLUMBING VENT
		INDICATION OF FLOW DIRECTION
CO		CLEAN OUT, HORIZONTAL
		CLEAN OUT, VERTICAL
RV		RELIEF VALVE
HB		HOSE BIB

DETAIL NUMBER
SHEET NUMBER - WHERE DETAIL IS SHOWN

ELEVATION NUMBER
SHEET NUMBER - WHERE SECTION IS SHOWN

SECTION NUMBER
SHEET NUMBER - WHERE SECTION IS SHOWN

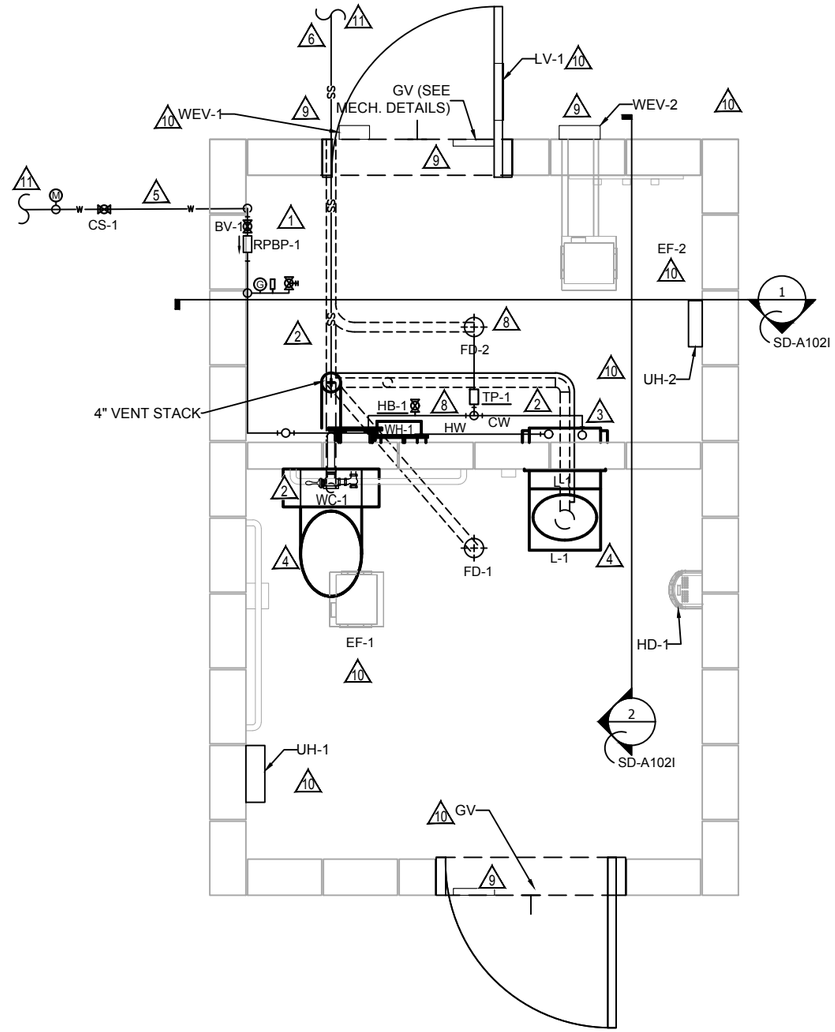
(NOT ALL SYMBOLS SHOWN ARE USED ON THESE DRAWINGS)

GENERAL NOTES:

1. ALL INTERIOR WATER PIPING SHALL BE RIGID TYPE **"L"** COPPER, EXTERIOR WATER PIPING SHALL BE SOFT, SEAMLESS TYPE **"K"**, UNLESS OTHERWISE NOTED. 1" TYPE **"K"** COPPER SHALL ENTER THE STRUCTURE THROUGH 1 ½" PVC SLEEVE AS COLD WATER, DOMESTIC, INSULATED WITH SPRAY FOAM POLYURETHANE. TRANSITION TO ¾" RIGID TYPE **"L"** COPPER TUBE SHALL OCCUR AT 1" BRONZE BALL VALVE (BV-1).
2. WATER VALVES FOR SINK AND TOILET SHALL BE INSTALLED ON THE UTILITY SIDE OF THE KIOSK.
3. ALL PLUMBING INSTALLATION TO MEET INTERNATIONAL PLUMBING CODE(I.P.C) REGULATIONS. FOLLOW ALL LOCAL MUNICIPALITIES OR AHJ STANDARDS WHICH MAY APPLY.
4. COORDINATE LOCATION OF PLUMBING EQUIPMENT WITH ELECTRICAL CONTRACTOR. INSTALL ALL PLUMBING EQUIPMENT ON DIVIDING WALL AND WALL OPPOSITE ELECTRICAL PANELS. PROTECT ALL COPPER PIPE WITH 1" THICK INSULATION SLEEVES. DO NOT INSTALL INSULATION CLOSER THAN 6" FROM HOT WATER HEATER.
5. EQUIVALENT PLUMBING EQUIPMENT MAY BE SUBSTITUTED IF REQUESTED AND APPROVED USING PROPER SUBMITTAL PROCESS. REQUESTS FOR PROPOSED SUBSTITUTIONS SHALL INCLUDE JUSTIFICATION FOR CHANGE AS WELL AS A COMPLETE SET OF DATA AND PRODUCT INFORMTION SHOWING EQUIVALENT PARAMETERS, CHARACTERISTICS, COMPATABILITY AND THE ABILITY TO ACHIEVE DESIRED RESULTS.

FLAG NOTES:

1. COORDINATE EXACT LOCATION OF WATER STUB UP WITH GENERAL CONTRACTOR. PLUMBING EQUIPMENT SHALL BE LOCATED AWAY FROM ELECTRICAL PANELS.
2. SEE PLUMBING DETAILS FOR ADDITIONAL INFORMATION. NOT ALL DETAILS SHOWN. EQUIPMENT LOCATIONS AND PIPE ROUTING DETERMINED BY PLUMBING CONTRACTOR IN COORDINATION WITH GENERAL CONTRACTOR AND RTD REPRESENTITIVE.
3. COORDINATE CONNECTION FOR MOTION SENSING FAUCET WITH ELECTRICIAN.
4. ROUGH IN PLACE FIXTURES PER ARCHITECTURAL DRAWINGS. SINK, GRAB BARS AND TOILET SEAT HEIGHT TO MEET ADA REQUIREMENTS.
5. 1" TYPE K COPPER DOMESTIC WATER DISTRIBUTION LINE PROVIDE 1 ½ " PVC SLEEVE FOR WATER STUB UP INTO DRS. K COPPER DISTRIBUTION LINE TO SLOPE UP TO DRS TO ALLOW DRAINAGE AT CURB STOP. VERIFY WATER PRESSURE WITH RTD ENGINEER.
6. SANITARY SEWER TO GRAVITY DRAIN TO MAIN SANITARY SEWER SYSTEM. SEE CIVIL DRAWINGS FOR REFERENCE. DOUBLE CLEAN OUT TO BE INSTALLED OUTSIDE BUILDING WITH COORDINATION WITH GENERAL CONTRACTOR.
7. NOT USED
8. USE SPECIFIED TRAP PRIMER EQUIPMENT FOR MECHANICAL FLOOR DRAIN (FD-2) ONLY. EMBED PIPE IN SLAB AS NEEDED. COORDINATE WITH GENERAL CONTRACTOR FOR FLOOR DRAIN AND TRAP PRIMER INSTALLATION.
9. SEE ARCHITECTURAL PLANS FOR LOCATION.
10. SEE MECHANICAL DETAILS.
11. SEE SITE PLAN FOR LOCATION OF SEWER AND WATER LOCATIONS.



1 PLUMBING PLAN VIEW
Scale: 3/4" = 1'-0"

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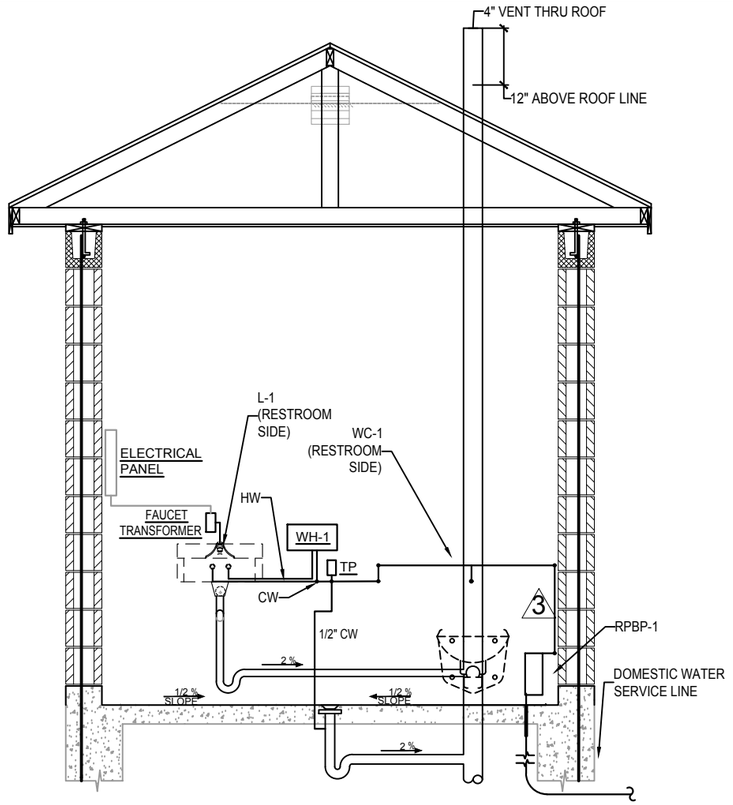
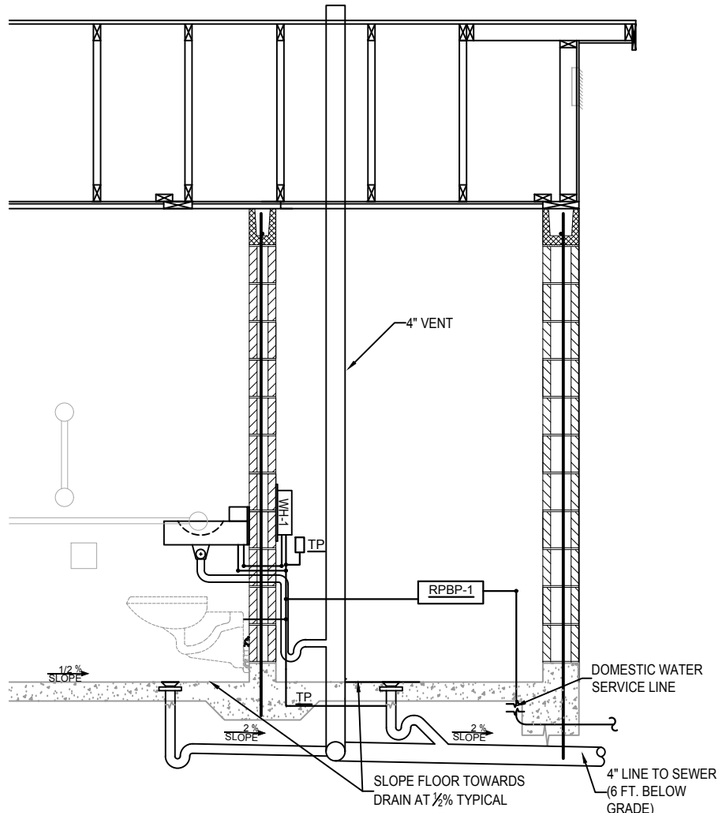
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II PLUMBING PLAN

SHEET REFERENCE NUMBER:
SD-A102H
49 OF 68



1 ELEVATION-WATER PIPING, VENTS, AND DRAINAGE
Scale: 3/4" = 1'-0"



2 ELEVATION - MECHANICAL ROOM
Scale: 3/4" = 1'-0"

PLAN NOTES:

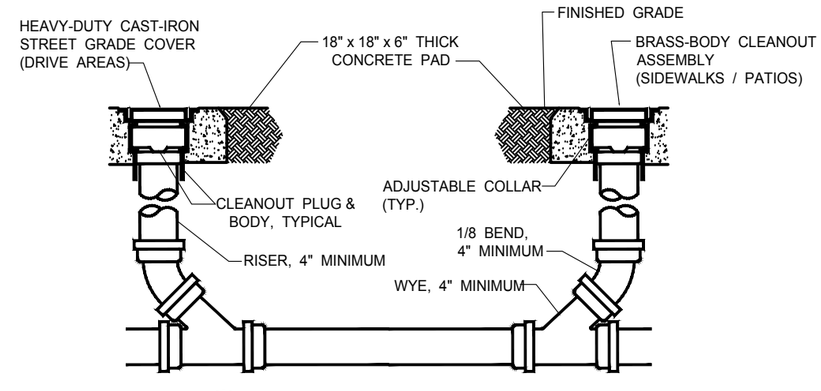
1. ALL INTERIOR WATER PIPING SHALL BE TYPE **"L"** COPPER, EXTERIOR WATER PIPING SHALL BE TYPE **"K"**. HDPE, POLYEHTYLENE MAY BE USED IF PROPER TYPE IS REQUESTED.

2. CONTRACTOR SHALL COMPLETE AND SUBMIT TOTALIZING FLOW METER TEST FORM TO THE APPLICABLE AUTHORITY AND PROVIDE A COPY OF THE FORM TO RTD.

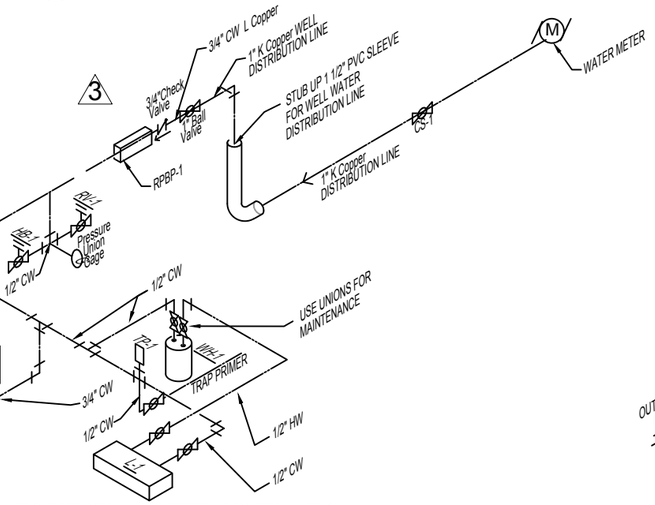
3. DRAWING PLANS, SCHEMATICS AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS. PLUMBING CONTRACTOR TO INSTALL AS INDICATED UNLESS MODIFICATIONS ARE NEEDED DUE TO SITE CONDITIONS. INSTALLATION OF EQUIPMENT OTHER THAN SHOWN REQUIRE GENERAL CONTRACTOR AND RTD REPRESENTATIVE APPROVAL.

4. COORDINATE LOCATION OF ALL EQUIPMENT WITH GENERAL CONTRACTOR PRIOR TO ROUGH IN.

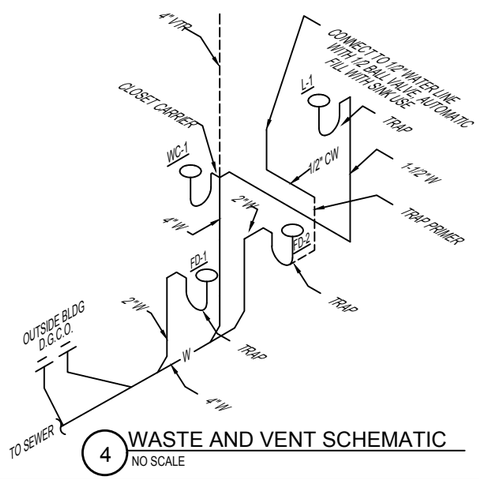
5. WHEN IRRIGATION SUPPLY AND BACKFLOW PREVENTOR IS INSTALLED IN DRS MECHANICAL ROOM, PROVIDE FOR ADDITIONAL BACKFLOW PREVENTOR AND LARGER SERVICE LINE.



6 TWO-WAY CLEANOUTS (SANITARY SEWER)
NO SCALE
(VERIFY WITH CUT SHEETS)

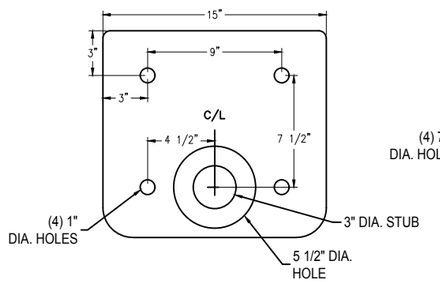


3 DOMESTIC WATER SCHEMATIC
NO SCALE

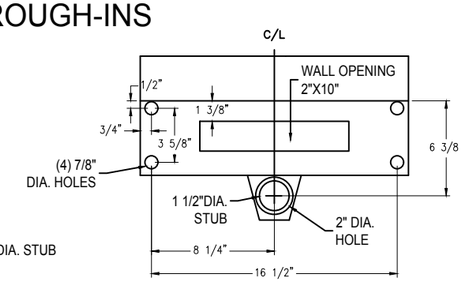


4 WASTE AND VENT SCHEMATIC
NO SCALE

ROUGH-INS



5 LAVATORY PLAN
NO SCALE
(VERIFY WITH W6-1 CUT SHEETS)



6 LAVATORY ELEVATION
NO SCALE
(VERIFY WITH L-1 CUT SHEETS)

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II PLUMBING DETAILS

SHEET REFERENCE NUMBER:
SD-A102I
50 OF 68

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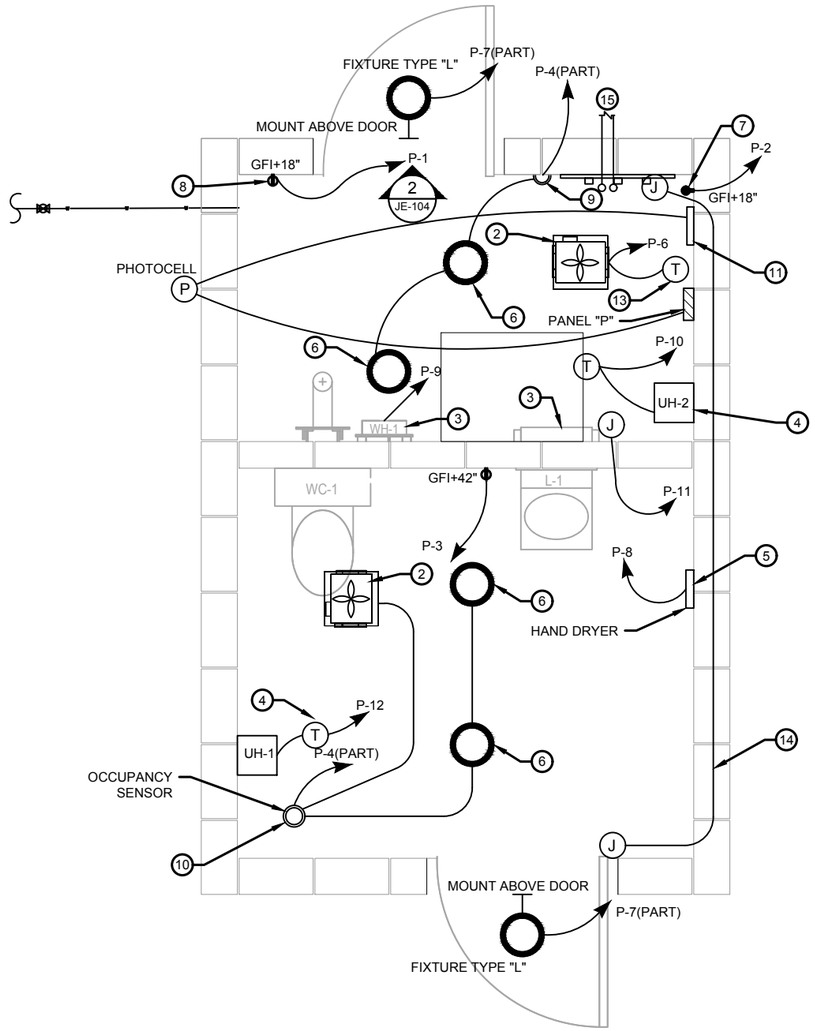
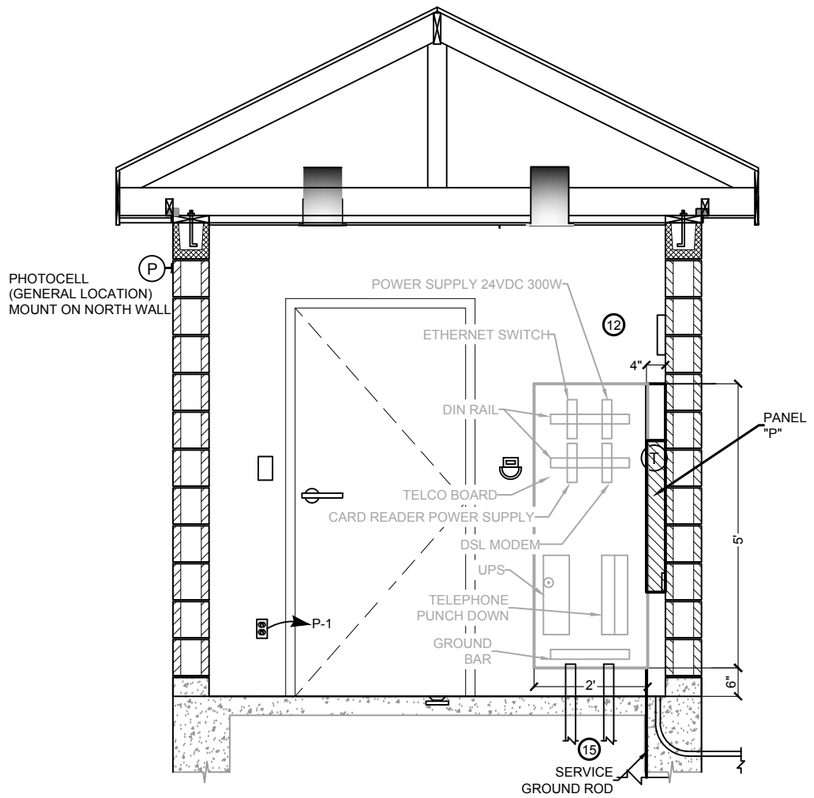


1 TYPE II DRS ELECTRICAL PLAN
SCALE: 3/4 = 1'-0"



2 INTERIOR PANEL DRS ELEVATION
SCALE: 3/4 = 1'-0"

NOTES:

1. COORDINATE EXACT LOCATION OF ELECTRICAL POWER AND COMMUNICATION CONDUIT STUBOUTS WITH GENERAL CONTRACTOR. ELECTRICAL EQUIPMENT SHALL BE LOCATED AWAY FROM PLUMBING EQUIPMENT.
2. GREENHECK EXHAUST FAN. SEE MECHANICAL DRAWING FOR ADDITIONAL INFORMATION. CONTROL AS SHOWN.
3. COORDINATE CONNECTION FOR MOTION SENSING FAUCET AND WATER HEATER WITH PLUMBER. HARDWIRE SENSOR TRANSFORMER TO P-11. HARDWIRE WATER HEATER TO P-9.
4. UNIT HEATERS TO BE SURFACE MOUNT ON WALL. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS. PROVIDE FLUSH MOUNTED JUNCTION BOX IN CEILING TO CONCEAL THERMOSTAT SENSOR. THERMOSTAT CONTROLS FOR ALL HEATERS TO BE LOCATED IN MECHANICAL ROOM. COORDINATE THERMOSTAT'S EXACT LOCATION WITH MECHANICAL CONTRACTOR AND GENERAL CONTRACTOR.
5. SEE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION OF HAND DRYER. CONDUIT TO BE EMBEDDED IN BLOCK WALL. COORDINATE WITH MASONRY CONTRACTOR AND GENERAL CONTRACTOR. SEE MECHANICAL DRAWINGS FOR EQUIPMENT INFORMATION. SEE ARCHITECTURAL DRAWINGS FOR LOCATION.
6. 4" RECESSED LED CAN FIXTURES TO BE CONTROLLED BY OCCUPANCY SENSORS. LITHONIA 4GI-MW-LED-L3LED-T24 OR SUBMITTED AND APPROVED EQUAL.
7. GFI QUAD RECEPTACLE DEDICATED TO IT EQUIPMENT. UPS TO BE POWERED BY THIS OUTLET. INSTALL 18-INCHES ABOVE FINISHED FLOOR.
8. GENERAL GFCI RECEPTACLE FOR FACILITY MAINTENANCE.
9. WALL MOUNT COMBINATION OCCUPANCY SENSOR (OC-2) AND SWITCH AT 44-INCHES ABOVE FINISHED FLOOR. CONDUIT IN MECHANICAL ROOM INSTALLED EXPOSED. WATTSTOPPER DSW-100 DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR OR SUBMITTED AND APPROVED EQUAL.
10. OCCUPANCY SENSOR (OC-1) SHALL BE CEILING MOUNTED. WATTSTOPPER CI-300 LOW VOLTAGE PIR CEILING SENSOR WITH BZ-150 POWER PACK OR SUBMITTED AND APPROVED EQUAL. NOTE TO CONTRACTOR: POWER PACK MUST BE PROVIDED. OCCUPANCY SENSOR TO HAVE EXHAUST FAN OPERATE ON 10 MINUTE DELAY.
11. LIGHTING CONTACTORS AND CONTROL SWITCHES TO BE MOUNTED NEAR PANEL "P" ON SAME WALL(MOUNT PHOTOCELL ON NORTH WALL).
12. I.T. EQUIPMENT INSTALLATION BY COMMUNICATION SUBCONTRACTOR. ELECTRICAL SUBCONTRACTOR TO PROVIDE DEDICATED CIRCUIT FOR POWER. INSTALLATION OF ELECTRICAL EQUIPMENT SHALL LEAVE NEC 2014 150V WORKING SPACE CLEARANCE.
13. INSTALL WALL MOUNTED THERMOSTAT AT 60" ABOVE FINISHED FLOOR. COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATION AND SETTINGS. EF-2 SHALL PROVIDE VENTILATION IF ROOM TEMPERATURE > 90° F.
14. PROVIDE AND INSTALL NEW JUNCTION BOXES AND 3/4" CONDUIT FROM HINGE SIDE OF DOOR TO TELCO BOARD FOR ACCESS CONTROL ELECTRIC LOCK POWER FEED.
15. STUB (2) 2" PVC/GRSC CONDUITS FROM UNDERNEATH TELCO BOARD TO 24" AWAY FROM DRS FOUNDATION. MINIMUM INSTALLED DEPTH TO BE 24" BELOW FINISHED GRADE. CAP BOTH ENDS, PROVIDE PULL TAPE AND TRACER WIRE.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II ELECTRICAL PLAN

SHEET REFERENCE NUMBER:
SD-A102J
51 OF 68

GENERAL NOTES:

1. INSTALL ELECTRICAL SYSTEM PER THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 80 PVC. ALL PRECAST CONCRETE PULL-BOX COVERS SHALL BE RATED FOR VEHICLE TRAFFIC.
3. IDENTIFY PATHS OF UNDERGROUND ELECTRICAL LINES WITH 6" WIDE BY 4 MILS THICK YELLOW COLORED VINYL TAPE. INSTALL TAPE 6" - 12" BELOW FINISHED GRADE.TAPE SHALL HAVE PRINTED WARNING THAT AN ELECTRIC CIRCUIT IS LOCATED BELOW THE TAPE.
4. PROVIDE PULL WIRES IN ALL EMPTY CONDUITS. USE #14 AWG ZINC COATED STEEL OR MONO-FILAMENT PLASTIC LINE HAVING NOT LESS THAN 200-LB TENSILE STRENGTH. LEAVE NOT LESS THAN 12" OF SLACK AT EACH END OF PULL WIRE.
5. INSTALL LUMINAIRES AND OTHER ELECTRICAL EQUIPMENT INCLUDING CONTROLS AND COMMUNICATION SYSTEMS PER MANUFACTURERS INSTRUCTIONS.
6. PHOTOCELL SHALL BE MOUNTED ON NORTH SIDE OF DRIVER'S RELIEF STATION.
7. ELECTRICAL METER HOUSING AND ALL OTHER ELECTRICAL EQUIPMENT TO BE NEW AND PROVIDED BY THE CONTRACTOR. METER PROVIDED BY XCEL ENERGY. COORDINATE WITH XCEL FOR EQUIPMENT AND INSTALLATION REQUIREMENTS.
8. DATA GIVEN ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED. ABSOLUTE ACCURACY IS NOT GUARANTEED AND THE CONTRACTOR SHALL OBTAIN AND VERIFY EXACT LOCATIONS, MEASUREMENTS, LEVELS, SPACE REQUIREMENTS, POTENTIAL CONFLICTS WITH OTHER TRADES, ETC. AND SHALL SATISFACTORILY ADAPT HIS WORK TO ACTUAL CONDITIONS AT THE BUILDINGS AND AT THE SITE. THE DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND SHALL NOT BE SCALED. HOWEVER, THIS DOES NOT RELIEVE ANY SUB-CONTRACTOR FROM COORDINATING HIS WORK WITH ALL OTHER TRADES AND FROM ADJUSTING HIS WORK AS REQUIRED BY THE ACTUAL CONDITIONS OF THE PROJECT. THE CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING A BID TO BECOME THOROUGHLY FAMILIAR WITH THE ACTUAL CONDITIONS OF THE PROJECT.
9. INFORMATION ON THESE DRAWINGS SHOWING DESCRIPTIONS, CATALOG NUMBERS, POLE AND MOUNTING DETAILS, INITIAL LUMENS, LIGHT LOSS FACTORS, AND OTHER EQUIPMENT/MATERIAL PARAMETERS ARE INCLUDED AS DESIGN GUIDELINES OR BECAUSE THEY ARE NEEDED TO MEET SPECIFIC RTD REQUIREMENTS. EQUIVALENT ELECTRICAL EQUIPMENT AND/OR MATERIAL MAY BE SUBSTITUTED IF REQUESTED AND APPROVED USING PROPER SUBMITTAL PROCESS. REQUESTS FOR PROPOSED SUBSTITUTIONS SHALL INCLUDE JUSTIFICATION FOR CHANGE AS WELL AS A COMPLETE SET OF DATA AND PRODUCT INFORMATION SHOWING EQUIVALENT PARAMETERS, CHARACTERISTICS, COMPATIBILITY AND AND ABILITY TO ACHIEVE DESIRED RESULTS.

ELECTRICAL LEGEND

ABBR.	SYMBOL	DESCRIPTION
	F	POLE MOUNTED LIGHTING FIXTURE (LETTER DESIGNATION INDICATES FIXTURE TYPE TYPICAL)
	L	WALL MOUNT LIGHTING FIXTURE (LETTER DESIGNATION INDICATES FIXTURE TYPE TYPICAL)
	T	THERMOSTAT
XFMR	T / F	TRANSFORMER
PBELEC	E	ELECTRIC PULL BOX, FLUSH WITH FINISHED GRADE
COMM	C	COMMUNICATION PULL BOX, FLUSH WITH FINISHED GRADE
HH		HANDHOLE
	P	PHOTOCELL
		RECESSED LED LIGHTING FIXTURE
OHE	OHE OHE OHE	EXISTING OVERHEAD ELECTRIC
UGE	UGE UGE UGE	UNDERGROUND ELECTRIC CONDUIT
CCTV	CCTV CCTV CCTV	UNDERGROUND CAMERA CONDUIT
TEL	TEL TEL TEL	UNDERGROUND TELEPHONE CONDUIT
	ETEL PWR ETEL PWR	EMERGENCY TELEPHONE POWER CONDUIT
	ETEL COM ETEL COM	EMERGENCY TELEPHONE COMMUNICATIONS CONDUIT
		CONDUIT FOR FUTURE NEEDS
	PB1-1,3	BRANCH CIRCUIT HOMERUN TO PANELBOARD, NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS, DESIGNATION INDICATES PANEL & CIRCUIT NUMBERS
	1	ELECTRICAL CONDUIT NUMBER (SEE RACEWAY SCHEDULE, JE-107)
		CONDUIT OR PIPE STUB-UP
		CONDUIT OR PIPE STUB-DOWN
		STAKED AND CAPPED CONDUIT
WP		WEATHER PROOF
G		GROUND CONDUCTOR
AFG		ABOVE FINISHED GRADE
UON		UNLESS OTHERWISE NOTED
(E)		EXISTING
	$	SINGLE THROW SWITCH
		DUPLEX RECEPTACLE
		QUAD RECEPTACLE
		EXHAUST FAN WITH MOTOR
	OC-1	OCCUPANT SENSOR (DESIGNATION INDICATES TYPE)
GFCI		GROUND FAULT CIRCUIT INTERRUPTER
	C	LIGHTING CONTACTOR
	M	ELECTRIC OR WATER METER
		ELECTRIC DISCONNECT SWITCH
	V	CLOSED CIRCUIT TELEVISION SECURITY CAMERA

NOTE: NOT ALL ELECTRICAL SYMBOLS ARE SHOWN ON ALL DRAWINGS.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II ELECTRICAL GENERAL NOTES

SHEET REFERENCE NUMBER:
SD-A102K
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SUPPLIED FROM: UTILITY TRANSFORMER

PANEL PANEL "P", DRS TYPE II **VOLTAGE** 120 / 240 **V** 1 **PH** 3 **W**
FLUSH **M.C.B.** 100/2 **MLO** X **I.G. BAR** **MANF.**
SURFACE X **BUS** 100A CU **A.I.C.** 10,000 **C.B.** BOLT ON

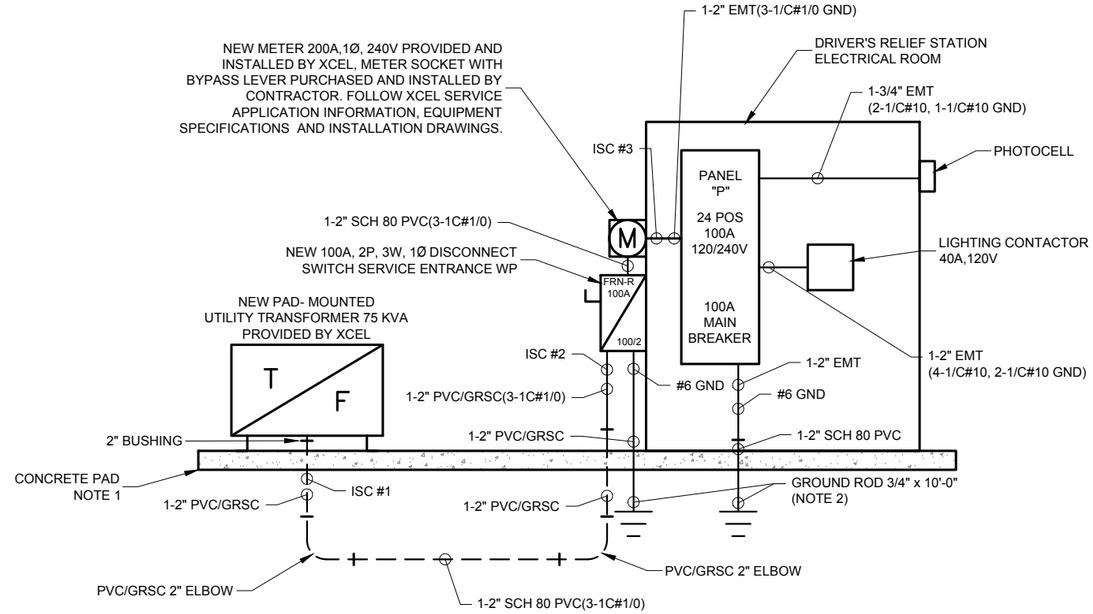
TYPE	DESCRIPTION	BKR	CIR	LOAD (VOLT AMPS) / PH. A		LOAD (VOLT AMPS) / PH. B		CIR	BKR	DESCRIPTION	TYPE
R	DRS WALL REC	20	1	180	360			2	20	COMM REC	R
R	DRS WALL REC	20	3			180	300	4	20	DRS LIGHTING/EF	LG
	SPARE	20	5	0	200			6	20	DRS EF	M
L	DRS EXTERIOR LTG	20	7			500	1000	8	20	DRS HAND DRYER	G
G	DRS EWH	20	9	1500	1500			10	20	DRS UH-2	G
G	DRS FAUCET SENSOR	20	11			500	1500	12	20	DRS UH-1	G
	SPARE	20	13	0	0			14	20	SPARE	
	SPARE	20	15			0	0	16	20	SPARE	
	SPACE		17	0	0			18		SPACE	
	SPACE		19			0	0	20		SPACE	
	SPACE		21	0	0			22		SPACE	
	SPACE		23			0	0	24		SPACE	
				3740		3980					

LOAD TYPE	CONNECTED K A	B	TOTAL ALL PHASES	FACTOR	DEMAND K\ A	B	TOTAL ALL PHASES
LIGHTING	0.0	0.6	0.6	125%	0.0	0.8	0.8
RECEPTACLE (10KVA OR LES	0.5	0.2	0.7	100%	0.5	0.2	0.7
RECEPTACLE (OVER 10KVA)	0.0	0.0	0.0	50%	0.0	0.0	0.0
HVAC/MOTOR	0.2	0.0	0.2	100%	0.2	0.0	0.2
MOTOR(LARGEST)	0.0	0.0	0.0	125%	0.0	0.0	0.0
KITCHEN EQUIPMENT	0.0	0.0	0.0	100%	0.0	0.0	0.0
MISCELLANEOUS	3.0	3.2	6.2	100%	3.0	3.2	6.2
TOTAL KVA	3.7	4.0	7.7	TOTAL KVA	3.7	4.1	7.9
WITH GROUND BUS				TOTAL AMPS	31.2	34.4	32.8

LEGEND L = LIGHTING R = RECEPTACLE M = HVAC / MOTOR K = KITCHEN G = MISCELLANEOUS
MAX PERCENT DIFFERENCE BETWEEN PHASES (A,B): 0.06

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH CIVIL ENGINEER ON PAD DESIGN FOR ELECTRICAL EQUIPMENT.
2. PROVIDE EXOTHERMIC CONNECTION TO GROUND ROD.



1 JE-103 ONE LINE DIAGRAM
NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	MOUNTING	POLE	VOLTAGE	LAMPS / BALLAST
L	LITHONIA OR EQUAL	DSXW1-LED-10C-530-40K-T2M-MVOLT	D-SERIES LED WALL MOUNTED FIXTURE, 1 (10) LEDS, TYPE 2 MEDIUM DISTRIBUTION, BLACK FINISH	WALL MOUNT OVER DOOR	N/A	120	19W, 10 LEDS 530 mA DRIVER 4000K CRI

NOTE: CIRCUIT EXTERIOR MOUNTED LIGHTING FIXTURES VIA LIGHTING CONTACTOR: PHOTOCELL ON, PHOTOCELL OFF.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT
ARCHITECTURAL
DRS TYPE II ELECTRICAL ONE-LINE DIAGRAM, DETAILS

SHEET REFERENCE NUMBER: SD-A102L
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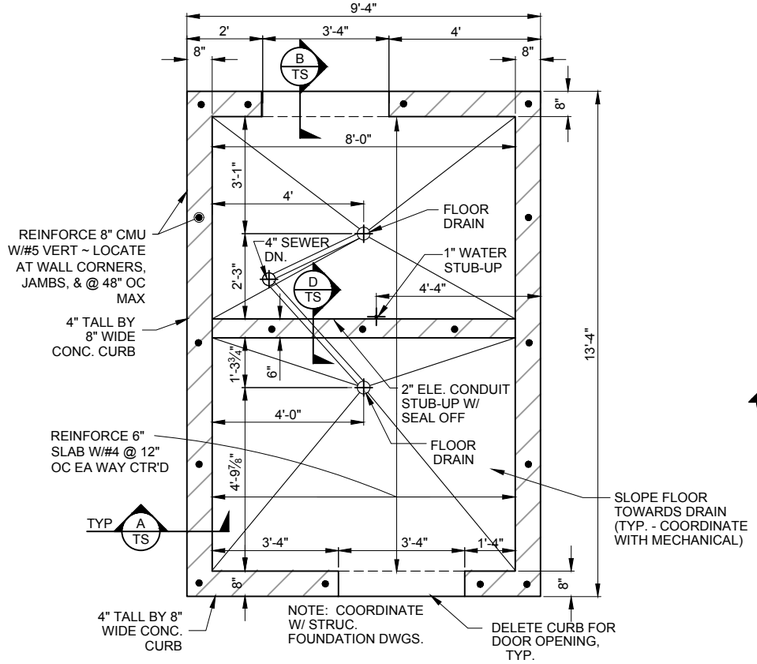
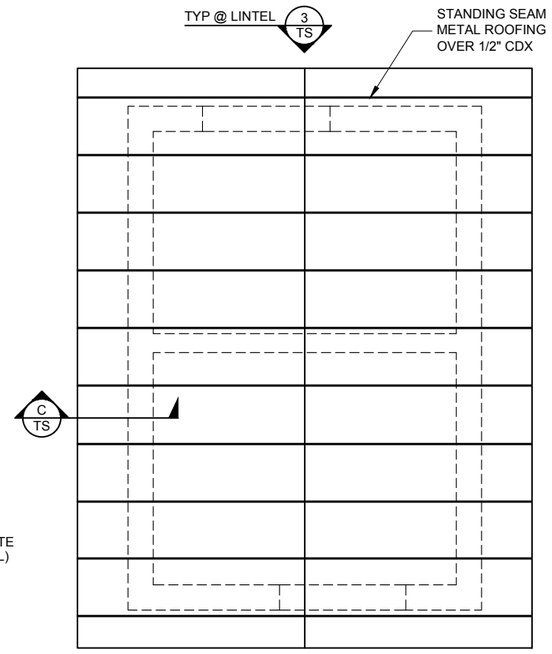
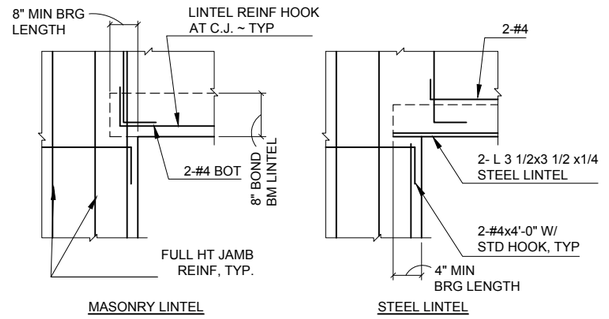


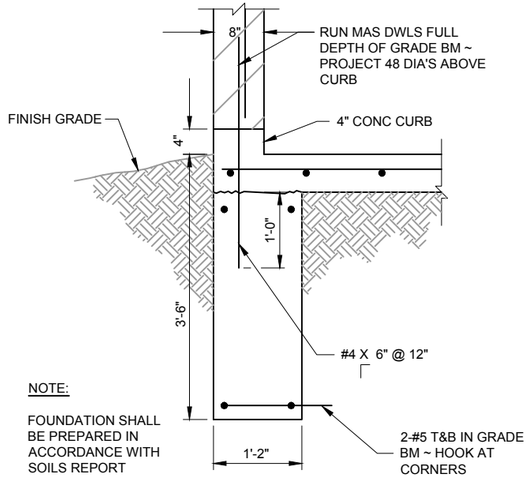
1 TYPE II FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



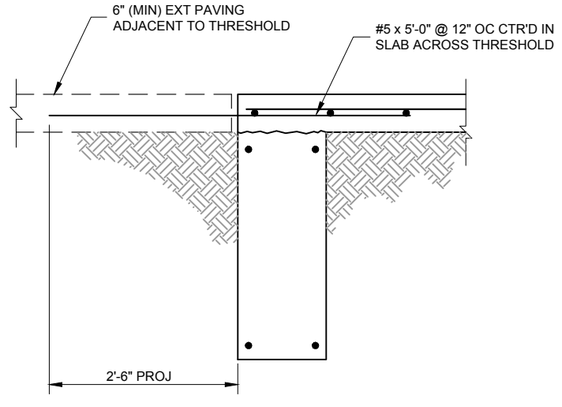
2 TYPE II ROOF PLAN
SCALE: 1/2" = 1'-0"



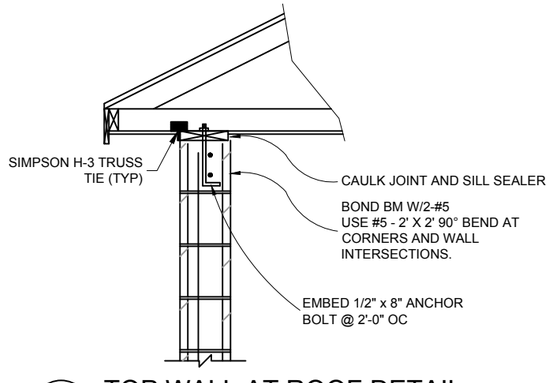
3 DETAIL - LINTEL (Typ.)
SCALE: 3/4" = 1'-0"



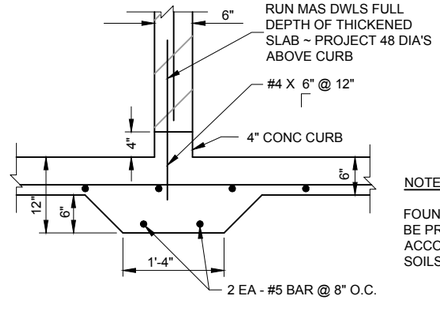
A TYP. RELIEF STATION GRADE BEAM
SCALE: 1" = 1'-0"



B TYP. THRESHOLD AT RELIEF STATION
SCALE: 1" = 1'-0"



C TOP WALL AT ROOF DETAIL
SCALE: 1" = 1'-0"



D TYP. RELIEF STATION THICKENED SLAB
SCALE: 1" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II PLAN AND DETAILS

SHEET REFERENCE NUMBER:
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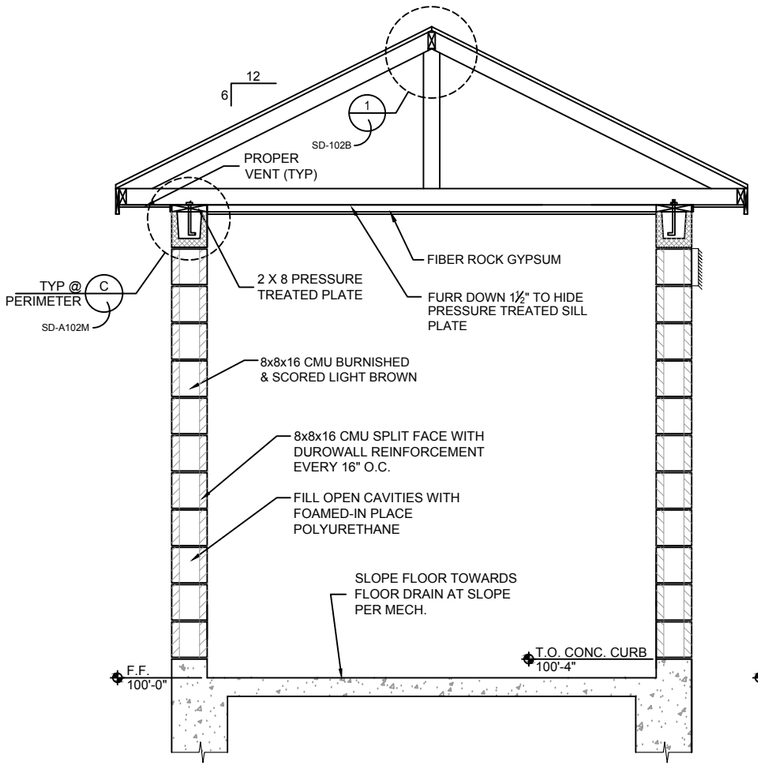
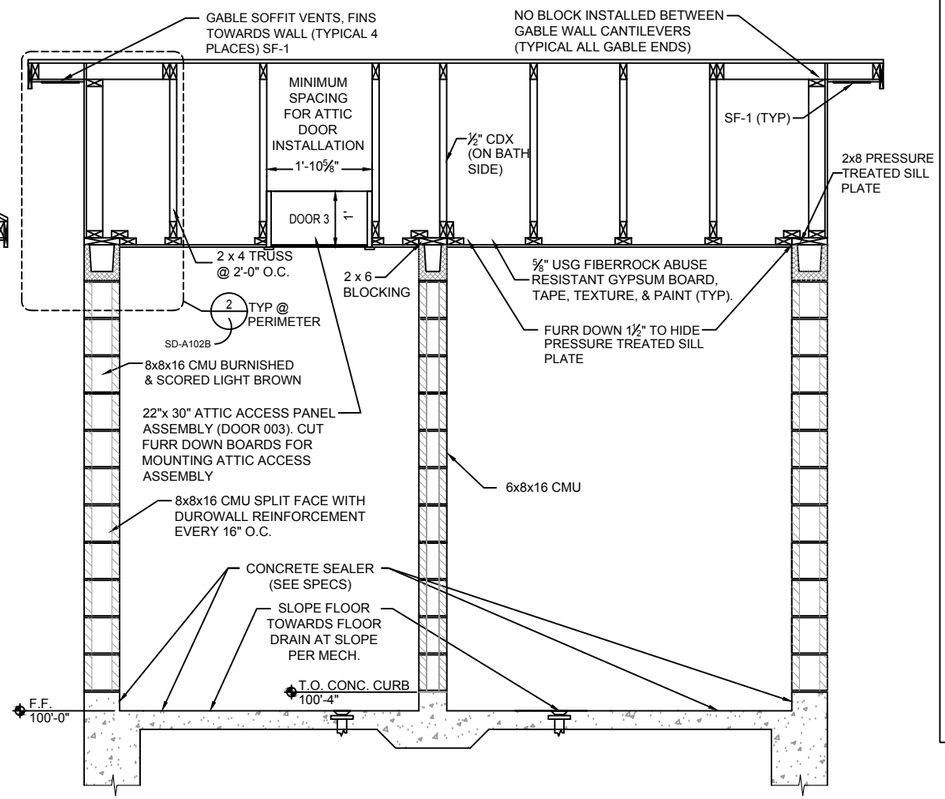


C DRIVER RELIEF STATION - CROSS SECTION
SCALE: 3/4" = 1'-0"



D DRIVER RELIEF STATION - LONGITUDINAL SECTION
SCALE: 3/4" = 1'-0"

FINISH SCHEDULE

ROOM DESCRIPTION	FLOOR	BASE	WALLS	CLG
RELIEF ROOM	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1) EP-2 (2)
MECHANICAL ROOM	CS-1	CS-1	BF-1(1) EP-1 (2)	PR-1 (1) EP-2 (2)

CS-1
MANUF: TAMMS
PRODUCT: LUSTER SEAL 300
COLOR: CLEAR
FINISH: NON-YELLOWING CONCRETE CURE & SEAL
AREA: FLOORS/CURB
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

EP-1
MANUF: PPG
PRODUCT: PITT-GLAZE WB WATER-BORNE ACRYLIC EPOXY #16-551
COLOR: 216-3 HONEY BEIGE
FINISH: GLOSS
AREA: 2 COATS OVER PRIMER BF-1 ON ALL WALLS
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS

BF-1
MANUF: PPG
PRODUCT: PITT-GLAZE INTERIOR/EXTERIOR BLOCK FILLER LATEX #16-90
COLOR: CLEAR
FINISH: -
AREA: 1 COAT PRIMER ON ALL WALLS
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

EP-2
MANUF: PPG
PRODUCT: PITT-GLAZE WB WATER-BORNE ACRYLIC EPOXY #16-551
COLOR: 316-1 PARCHMENT PAPER
FINISH: GLOSS
AREA: 2 COATS OVER PRIMER P-1 ON CEILING
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

PR-1
MANUF: PPG
PRODUCT: SPEEDHIDE INT/EXT ACRYLIC LATEX ALKALI RESISTANT PRIMER
COLOR: WHITE
FINISH:
AREA: 1 COAT PRIMER ON CEILING
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE II SECTIONS

SHEET REFERENCE NUMBER:
SD-A102N
55 OF 68

PLAN NOTES:

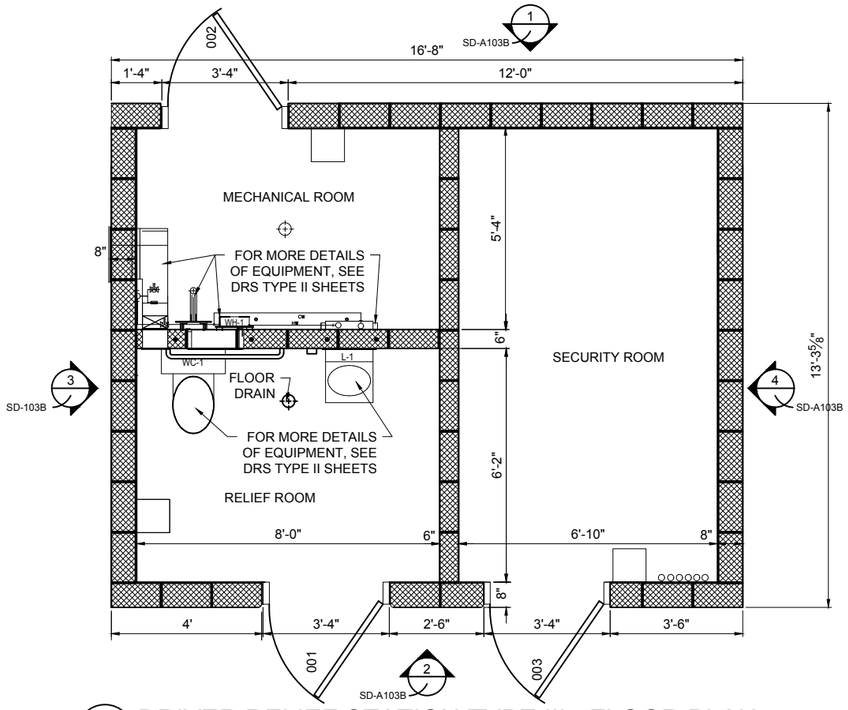
1. COORDINATE LOCATION OF ALL EQUIPMENT WITH MECHANICAL AND ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL AND MECHANICAL PLANS FOR FURTHER INFORMATION.

2. NO ELECTRICAL EQUIPMENT OR CONDUIT ALLOWED DIRECTLY BELOW ANY DOMESTIC WATER PIPING OR EQUIPMENT.

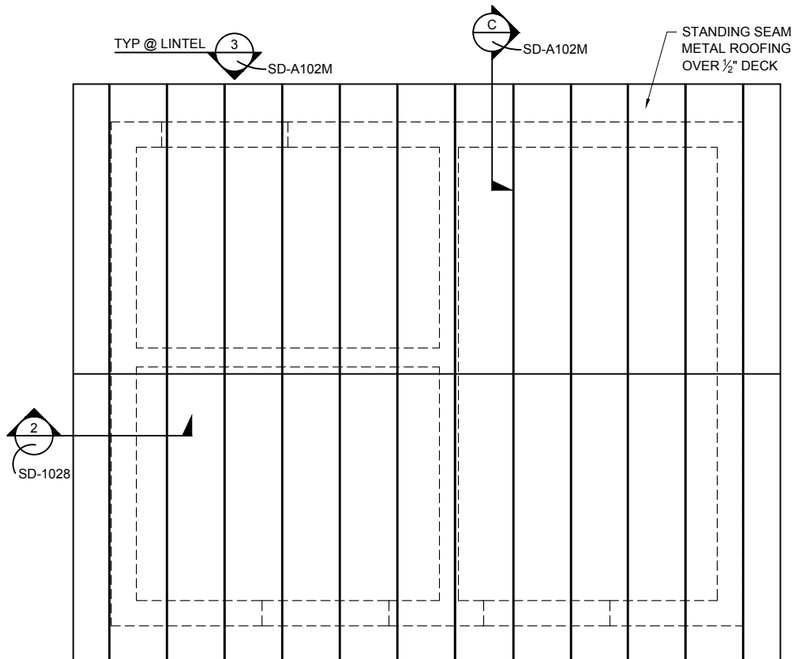
3. LOCATION AND DIMENSIONS OF MECHANICAL AND ELECTRICAL EQUIPMENT AND CONNECTIONS FOR REFERENCE ONLY. CONTRACTOR TO DETERMINE EXACT LOCATION AS REQUIRED FOR PROPER INSTALLATION.

4. ELECTRICAL, SEWER AND DOMESTIC WATER STUB UP LOCATIONS DETERMINED BY ELECTRICAL AND MECHANICAL CONTRACTOR DEPENDENT SITE CONDITIONS. COORDINATE ALL UTILITY SERVICE ENTRANCE LOCATIONS WITH AUTHORITY HAVING JURISDICTION, GENERAL CONTRACTOR AND RTD PROJECT MANAGER.

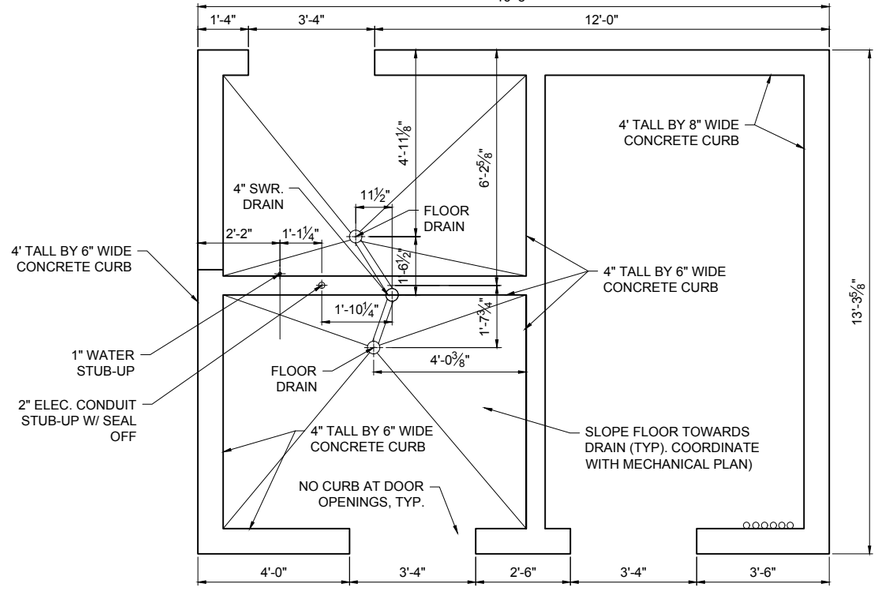
5. EQUIPMENT PART NUMBERS SELECTED SPECIFICALLY FOR FUNCTIONALITY AND USE OF COMMON PARTS FOR MAINTENANCE. ALTERNATES ALLOWED ONLY BY APPROVAL THROUGH SUBMITTAL PROCESS.



1 DRIVER RELIEF STATION TYPE III - FLOOR PLAN
SCALE: 1/2" = 1'-0"



3 DRIVER RELIEF STATION TYPE III - ROOF PLAN
SCALE: 1/2" = 1'-0"



2 DRIVER RELIEF STATION TYPE III - FOUNDATION PLAN
SCALE: 1/2" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE III PLANS

SHEET REFERENCE NUMBER:
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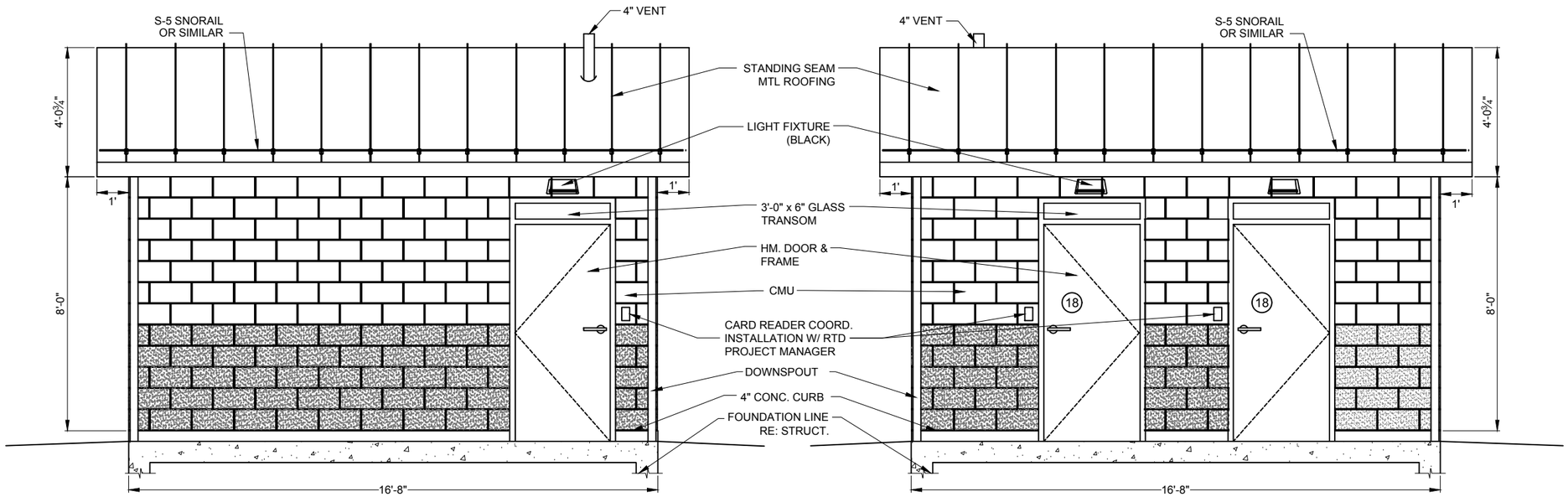
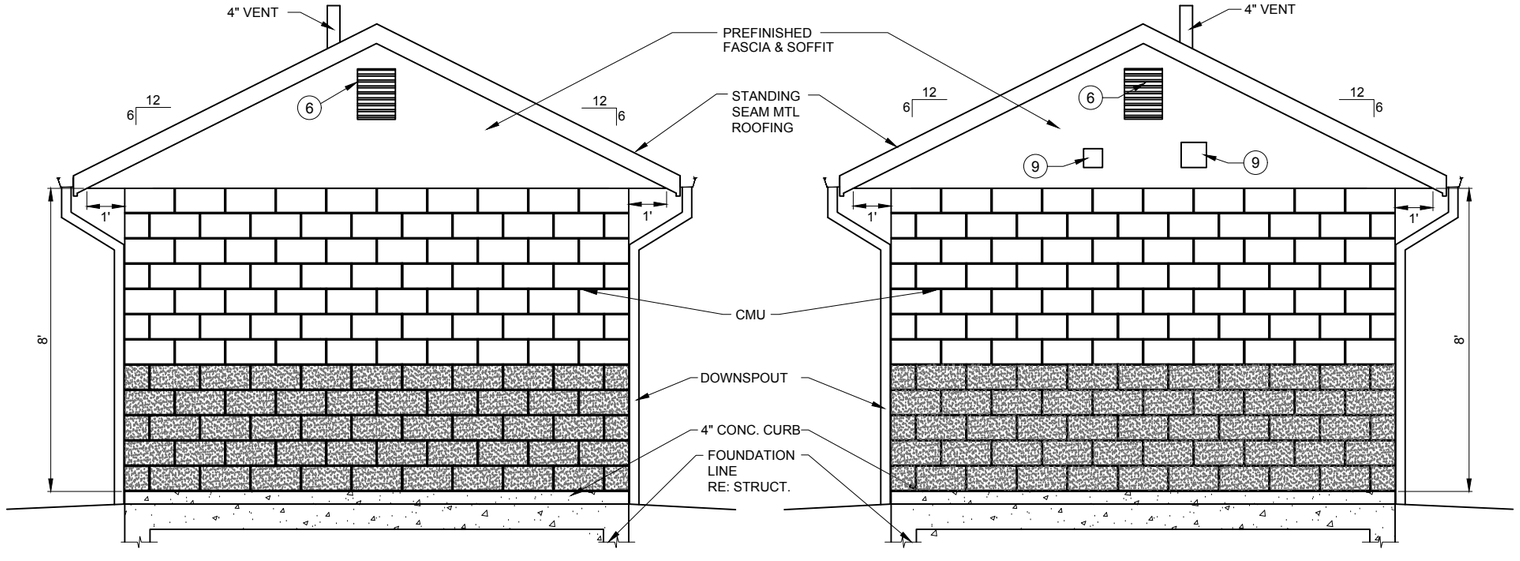


1 EXTERIOR ELEVATION
SCALE: 1/2" = 1'-0"

2 EXTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



3 EXTERIOR ELEVATION
SCALE: 1/2" = 1'-0"

4 EXTERIOR ELEVATION
SCALE: 1/2" = 1'-0"

ELEVATION FLAG NOTES:

1. RE: DRS IV - ELECTRICAL
2. RE: DRS IV - ELECTRICAL
3. RE: DRS III - MECHANICAL
4. RE: DRS III - MECHANICAL
5. RE: DRS III - MECHANICAL
6. PROVIDE 12" W x 1'- 4" H LOUVER VENT W/INSECT SCREEN. CONSTRUCTION METALS INC. 12"X12" GALVANIZED CENTER FLANGE GABLE LOUVER MODEL: #GLFC1212G OR APPROVED EQUAL.
7. PROVIDE IN MECHANICAL ROOM A 3/4 " X 1'-0" X 3'-0" PLYWOOD EQUIPMENT PANEL ON 2 UNISTRUT CHANNEL P 1000T.
8. RE: DRS III MECHANICAL
9. RE: DRS III
10. RE: DRS III MECHANICAL
11. TOILET PAPER HOLDER, BRADLEY #5402, MOUNT WITH #8-3/4" WOOD SCREW WITH EXPANSION SHIELD AT 24" A.F.F.
12. DOOR 002 LOCKS: CONTRACTOR SHALL FURNISH AND INSTALL A TRILOGY T2, ALDL 2800 I/C 260 WITH A BEST KEY LOCK IDN ACME PART #071124
13. RE: DRS III MECHANICAL
14. DOOR 001 LOCK: CONTRACTOR SHALL FURNISH AND INSTALL BEST ACCESS SYSTEMS, ELECTRONIC 35HBV-626-MORTISE, PROX CARD VERSION (INCLUDE BATTERIES AS NECESSARY), RTD WILL FURNISH CARD READER ONLY, CONTRACTOR SHALL INSTALL SAME.
15. ADD INTERIOR PRIVACY LOCK FOR OCCUPANT

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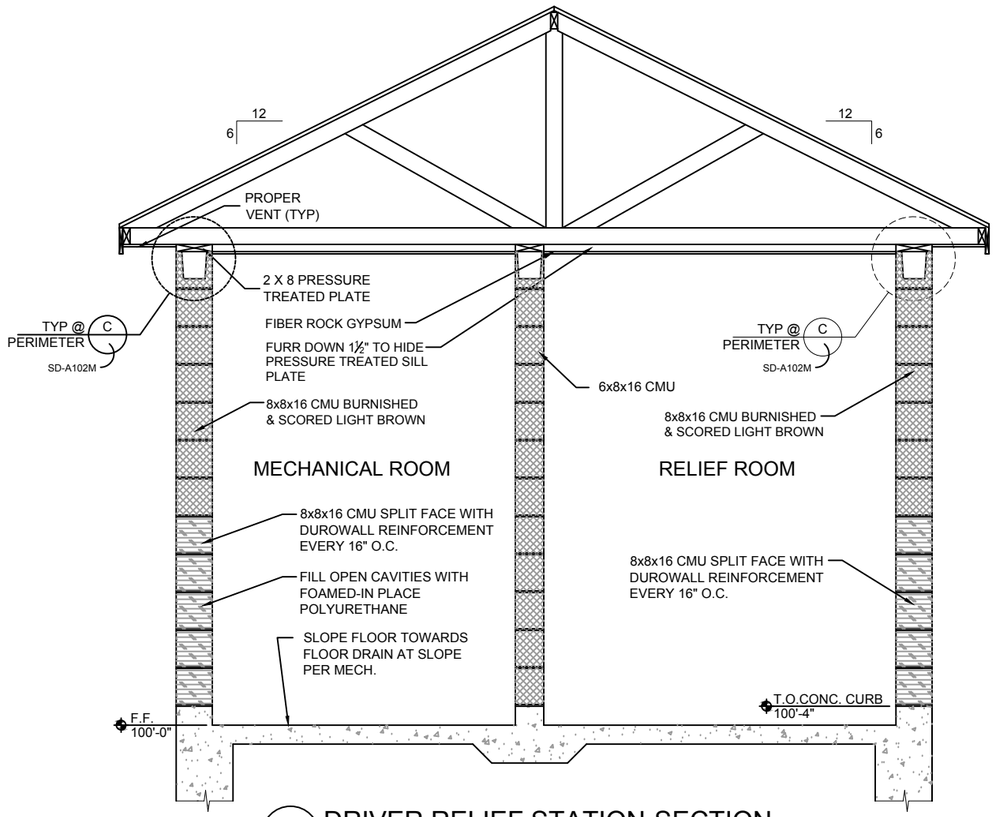
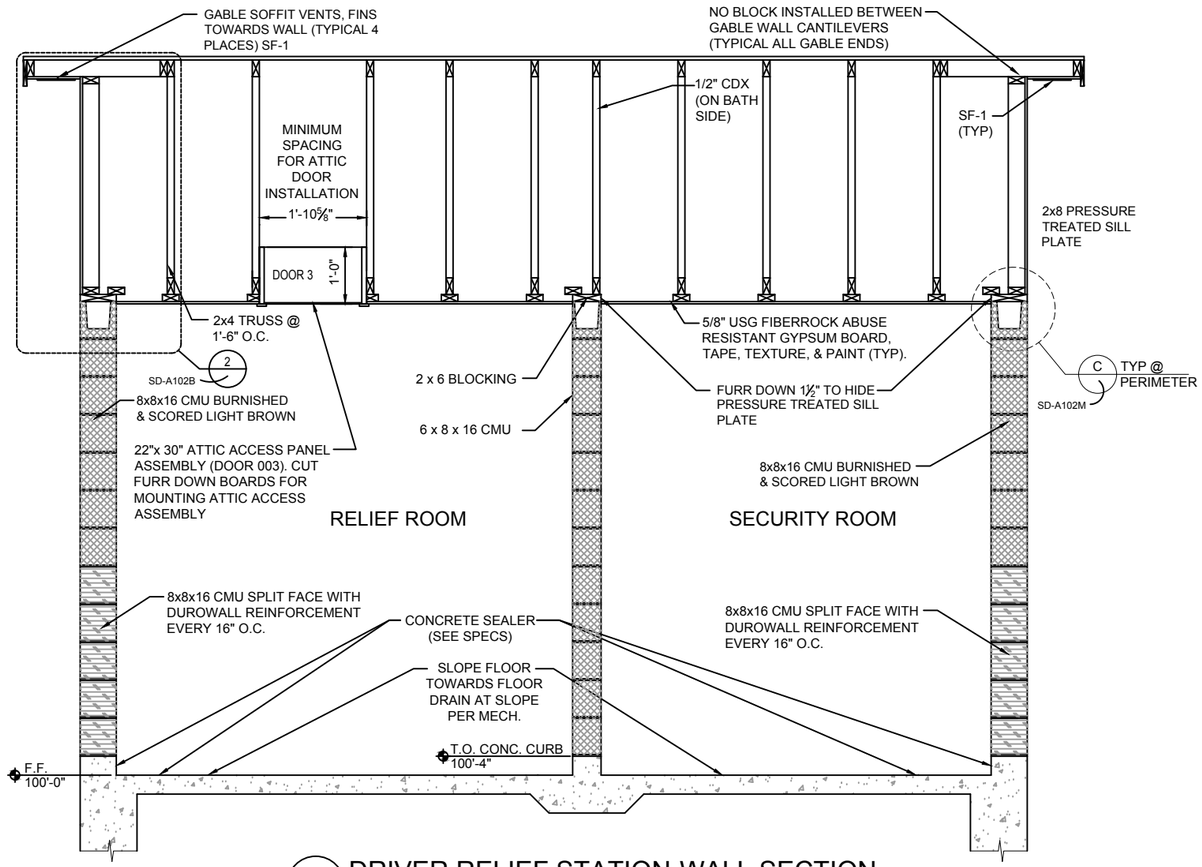
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE III ELEVATIONS

SHEET REFERENCE NUMBER:
SD-A103B
57 OF 68



C DRIVER RELIEF STATION-SECTION
SCALE: 3/4" = 1'-0"



D DRIVER RELIEF STATION-WALL SECTION
SCALE: 3/4" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE III SECTIONS

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CS-1 MANUF: TAMMS
PRODUCT: LUSTER SEAL 300
COLOR: CLEAR
FINISH: NON-YELLOWING CONCRETE CURE & SEAL
AREA: FLOORS/CURB
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

EP-1 MANUF: PPG
PRODUCT: PITT-GLAZE WB WATER-BORNE ACRYLIC EPOXY #16-551
COLOR: 2494 CASHEW
FINISH: GLOSS
AREA: 2 COATS OVER PRIMER BF-1 ON ALL WALLS
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS

BF-1 MANUF: PPG
PRODUCT: PITT-GLAZE INTERIOR/EXTERIOR BLOCK FILLER LATEX #16-90
COLOR: CLEAR
FINISH: -
AREA: 1 COAT PRIMER ON ALL WALLS
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

EP-2 MANUF: PPG
PRODUCT: PITT-GLAZE WB WATER-BORNE ACRYLIC EPOXY #16-551
COLOR: 2511 CREAMY WHITE
FINISH: GLOSS
AREA: 2 COATS OVER PRIMER P-1 ON CEILING
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

PR-1 MANUF: PPG
PRODUCT: SPEEDHIDE INT/EXT ACRYLIC LATEX ALKALI RESISTANT PRIMER
COLOR: WHITE
FINISH:
AREA: 1 COAT PRIMER ON CEILING
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

FINISH SCHEDULE

ROOM DESCRIPTION	FLOOR	BASE	WALLS	CLG	
RELIEF ROOM	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1)	EP-2 (2)
MECHANICAL ROOM	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1)	EP-2 (2)
SECURITY ROOM	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1)	EP-2 (2)

DOOR AND FRAME SCHEDULE

DOOR	SIZE	DOOR TYPE	FRAME TYPE	MAT'L	FINISH	HEAD (SEE DETAIL ABOVE)	JAMB (SEE DETAIL ABOVE)	RATING	REMARKS
001	3070 1 3/4	A	B	HM	PAINTED	H-1	J-1	NONE	INSULATED
002	3070 1 3/4	A	B	HM	PAINTED	H-1	J-1	NONE	INSULATED
003	3070 1 3/4	A	B	HM	PAINTED	H-1	J-1	NONE	INSULATED

HARDWARE SCHEDULE

OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
001	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - ELEC. STRIKE 1006-C-S-630		*ASSA	LOCK
		NET2 CONTROLLER W/BATERY BACKUP		*PAX	
		1.0 - 26BIT HID READER RP40		*PAS	
		1.0 B250,SFIC DEADLATCH		SCHL	
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN-4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP
		1.0 - OCCUPANCY INDICATOR		*AO	DEADBOLT
OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
002	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - B719		SCHL	DEADBOLT
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN - 4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP
OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
003	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - B719		SCHL	DEADBOLT
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN - 4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP

* ASSA ABLOY
* PAXTON
* PHYSICAL ACCESS SOLUTIONS
* ALLEGION
* ARCHITECTURAL OPENINGS

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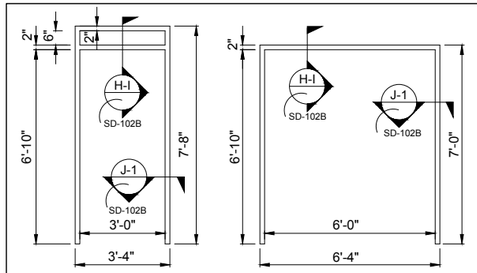
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE III SCHEDULES

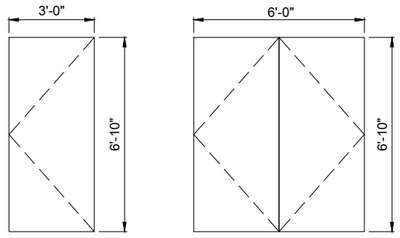
SHEET REFERENCE NUMBER:
SD-A103D



FRAME TYPE 1

FRAME TYPE 2

B H.M. FRAME
NTS



DOOR TYPE A DOOR TYPE B

A INSULATED H.M. DOOR
NTS

FINISH SCHEDULE

ROOM DESCRIPTION	FLOOR	BASE	WALLS	CLG	
RELIEF ROOM	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1)	EP-2 (2)
MECHANICAL ROOM	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1)	EP-2 (2)
SECURITY ROOM	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1)	EP-2 (2)
MAINTENANCE	CS-1	CS-1	BF-1 (1) EP-1 (2)	PR-1 (1)	EP-2 (2)

CS-1 MANUF: TAMMS
PRODUCT: LUSTER SEAL 300
COLOR: CLEAR
FINISH: NON-YELLOWING CONCRETE CURE & SEAL
AREA: FLOORS/CURB
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

EP-1 MANUF: PPG
PRODUCT: PITT-GLAZE WB WATER-BORNE ACRYLIC EPOXY #16-551
COLOR: 2494 CASHEW
FINISH: GLOSS
AREA: 2 COATS OVER PRIMER BF-1 ON ALL WALLS
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS

BF-1 MANUF: PPG
PRODUCT: PITT-GLAZE INTERIOR/EXTERIOR BLOCK FILLER LATEX #16-90
COLOR: CLEAR
FINISH: -
AREA: 1 COAT PRIMER ON ALL WALLS
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

EP-2 MANUF: PPG
PRODUCT: PITT-GLAZE WB WATER-BORNE ACRYLIC EPOXY #16-551
COLOR: 2511 CREAMY WHITE
FINISH: GLOSS
AREA: 2 COATS OVER PRIMER P-1 ON CEILING
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

PR-1 MANUF: PPG
PRODUCT: SPEEDHIDE INT/EXT ACRYLIC LATEX ALKALI RESISTANT PRIMER
COLOR: WHITE
FINISH:
AREA: 1 COAT PRIMER ON CEILING
NOTES: PRODUCT TO BE APPLIED BY AN APPROVED INSTALLER PER THE MANUF. REQUIREMENTS.

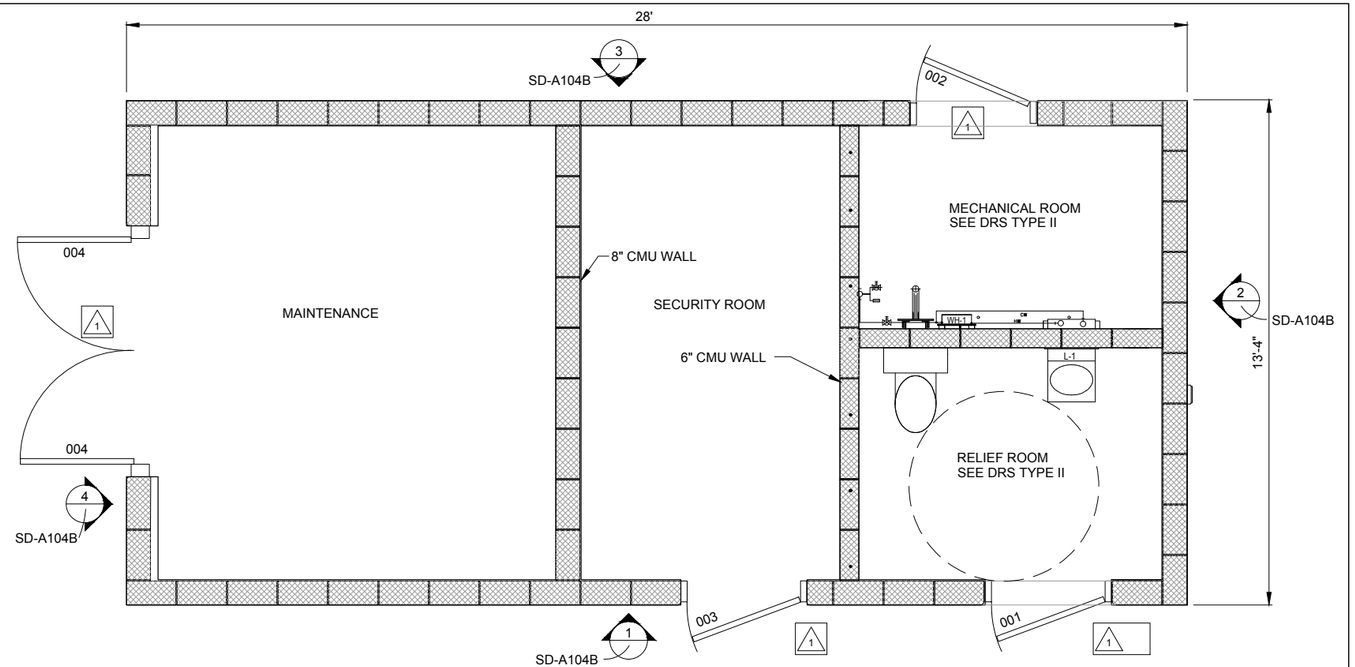
DOOR AND FRAME SCHEDULE

DOOR	SIZE	DOOR TYPE	FRAME TYPE	MAT'L	FINISH	HEAD (SEE DETAIL ABOVE)	JAMB (SEE DETAIL ABOVE)	RATING	REMARKS
001	3078 1¾	A	1	HM	PAINTED	H-1	J-1	NONE	INSULATED
002	3078 1¾	A	1	HM	PAINTED	H-1	J-1	NONE	INSULATED
003	3078 1¾	A	1	HM	PAINTED	H-1	J-1	NONE	INSULATED
004	2-30701¾	B	2	HM	PAINTED	H-1	J-1	NONE	INSULATED

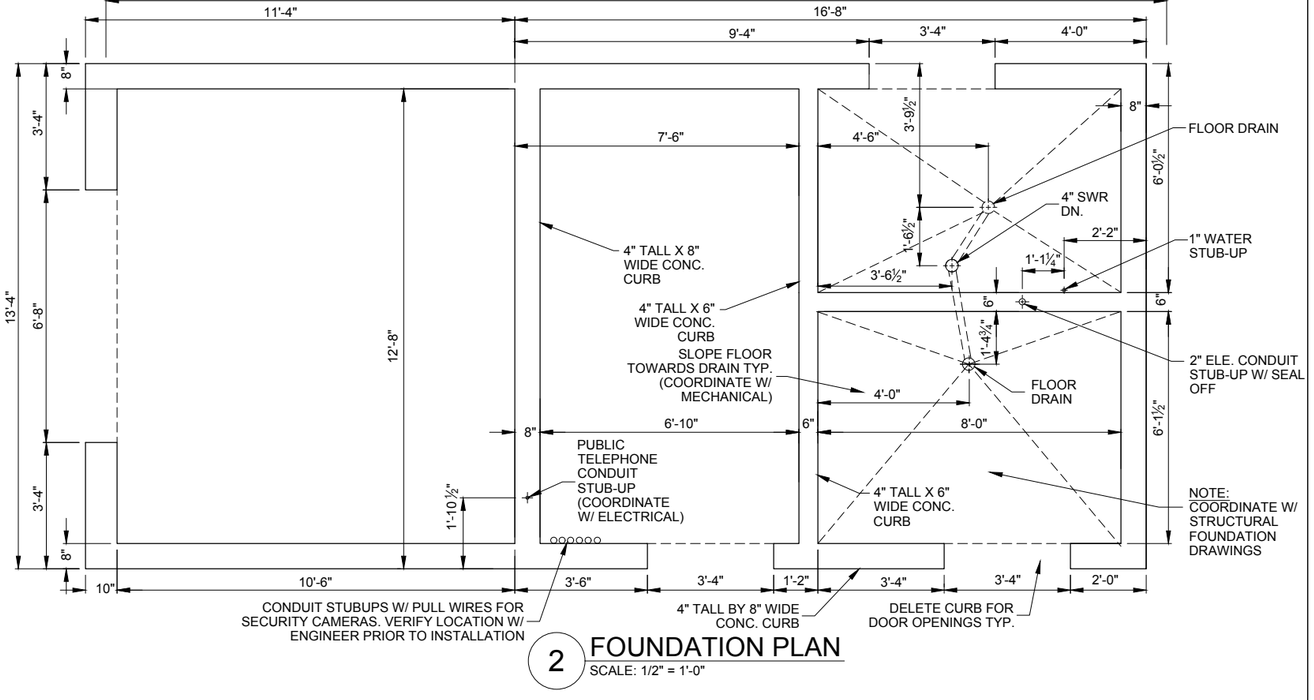
HARDWARE SCHEDULE

OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
001	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - ELEC. STRIKE 1006-C-S-630		*ASSA	LOCK
		NET2 CONTROLLER W/BATERY BACKUP		*PAX	
		1.0 - 26BIT HID READER RP40		*PAS	
		1.0 B250,SFIC DEADLATCH		SCHL	
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN-4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP
		1.0 - OCCUPANCY INDICATOR		*AO	DEADBOLT
OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
002	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - B719		SCHL	DEADBOLT
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN - 4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP
003	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - B719		SCHL	DEADBOLT
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN - 4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP
OPENING	QTY/SET	QTY - ITEM NUMBER	TYPE	MFR	SUBTYPE
004	1 001.00	3.0 - TA2314 4.5 X 4.5 US26D NRP		MCK	HINGES
		1.0 - B719		SCHL	DEADBOLT
		1.0 - PULL PLATE-1822		TRIMCO	
		1.0 - LCN - 4000		*ALL	CLOSER
		1.0 - 425E 36"		NGP	THRESH
		1.0 - A626A 1/36" X 2/84"		NGP	WSTRIP
		1.0 - C627A 36"		NGP	SWEEP
		1.0 - 16A		NGP	DRIP

* ASSA ABLOY
* PAXTON
* PHYSICAL ACCESS SOLUTIONS
* ALLEGION
* ARCHITECTURAL OPENINGS



1 DRIVER RELIEF STATION - PLAN
SCALE: 1/2" = 1'-0"



2 FOUNDATION PLAN
SCALE: 1/2" = 1'-0"

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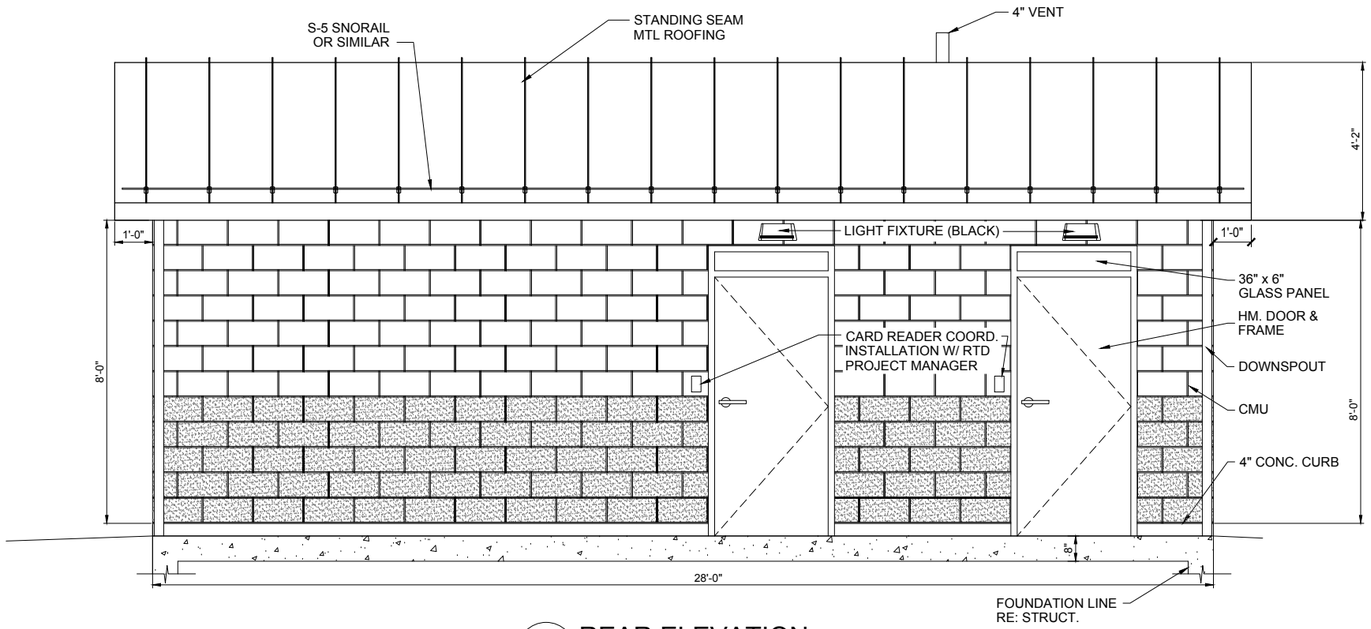
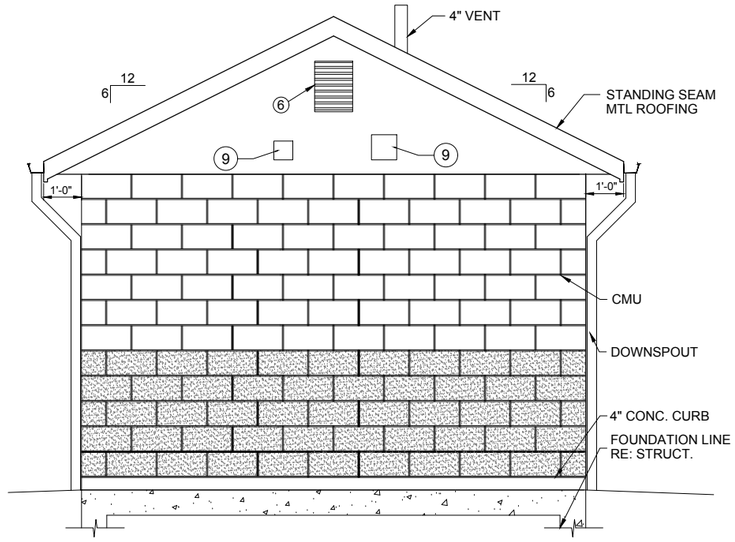
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE IV PLANS, DETAILS AND SCHEDULES

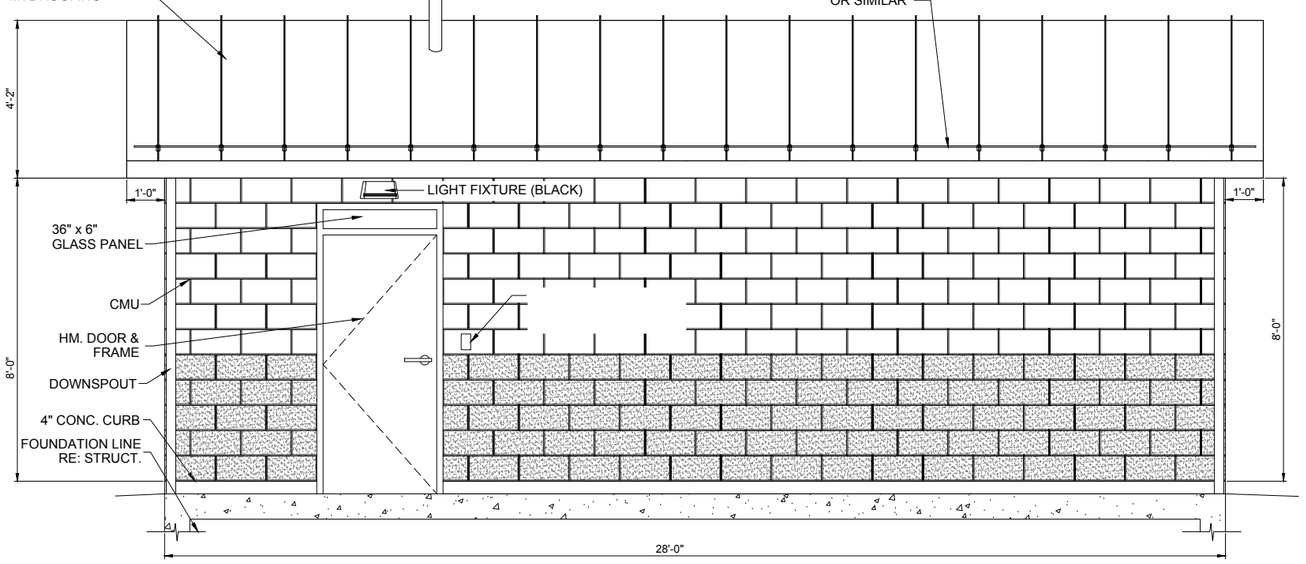
SHEET REFERENCE NUMBER:
SD-A104A
60 OF 68



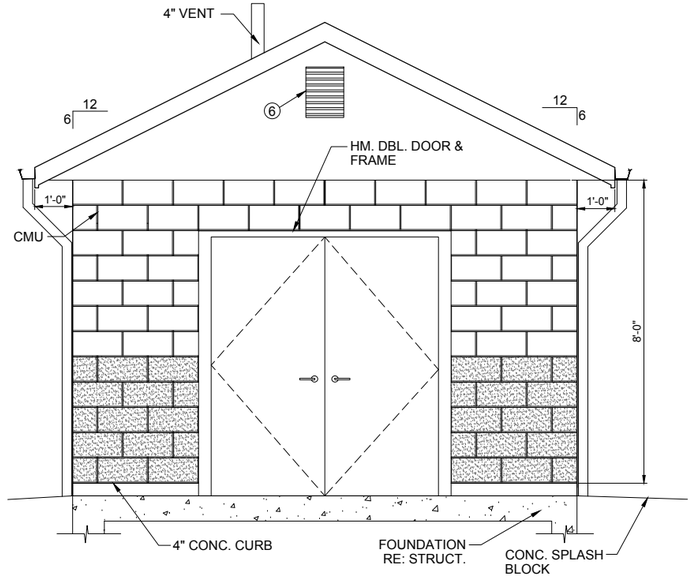
1 REAR ELEVATION
SCALE: 1/2" = 1'-0"



2 LEFT SIDE ELEVATION
SCALE: 1/2" = 1'-0"



3 FRONT ELEVATION
SCALE: 1/2" = 1'-0"



4 RIGHT SIDE ELEVATION
SCALE: 1/2" = 1'-0"

ELEVATION FLAG NOTES:

1. RE: DRS IV - ELECTRICAL
2. RE: DRS IV - ELECTRICAL
3. RE: DRS III - MECHANICAL
4. RE: DRS III - MECHANICAL
5. RE: DRS III - MECHANICAL
6. PROVIDE 12" X 16" LOUVER VENT W/INSECT SCREEN. CONSTRUCTION METALS INC. 12"X16" GALVANIZED CENTER FLANGE GABLE LOUVER MODEL: #GLFC1212G OR APPROVED EQUAL.
7. PROVIDE IN MECHANICAL ROOM A 3/4 " X 1'-0" X 3'-0" PLYWOOD EQUIPMENT PANEL ON 2 UNISTRUT CHANNEL P 1000T.
8. RE: DRS III MECHANICAL
9. EXHAUST FAN OUTLET, RE: MECHANICAL
10. RE: DRS III MECHANICAL
11. TOILET PAPER HOLDER, BRADLEY #5402, MOUNT WITH #8-3/4" WOOD SCREW WITH EXPANSION SHIELD AT 24" A.F.F.
12. DOOR 002 LOCKS: CONTRACTOR SHALL FURNISH AND INSTALL A TRILOGY T2, ALDL 2800 I/C 260 WITH A BEST KEY LOCK IDN ACME PART #071124
13. RE: DRS III MECHANICAL
14. DOOR 001 LOCK: CONTRACTOR SHALL FURNISH AND INSTALL BEST ACCESS SYSTEMS, ELECTRONIC 35HBV-626-MORTISE, PROX CARD VERSION (INCLUDE BATTERIES AS NECESSARY), RTD WILL FURNISH CARD READER ONLY, CONTRACTOR SHALL INSTALL SAME.
15. ADD INTERIOR PRIVACY LOCK FOR OCCUPANT

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE IV ELEVATIONS

SHEET REFERENCE NUMBER:
SD-A104B
61 OF 68

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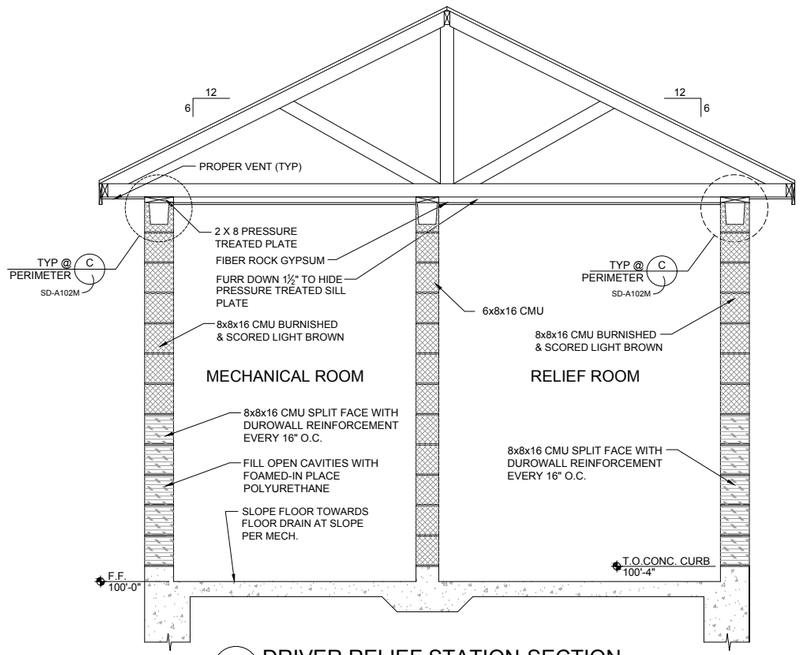
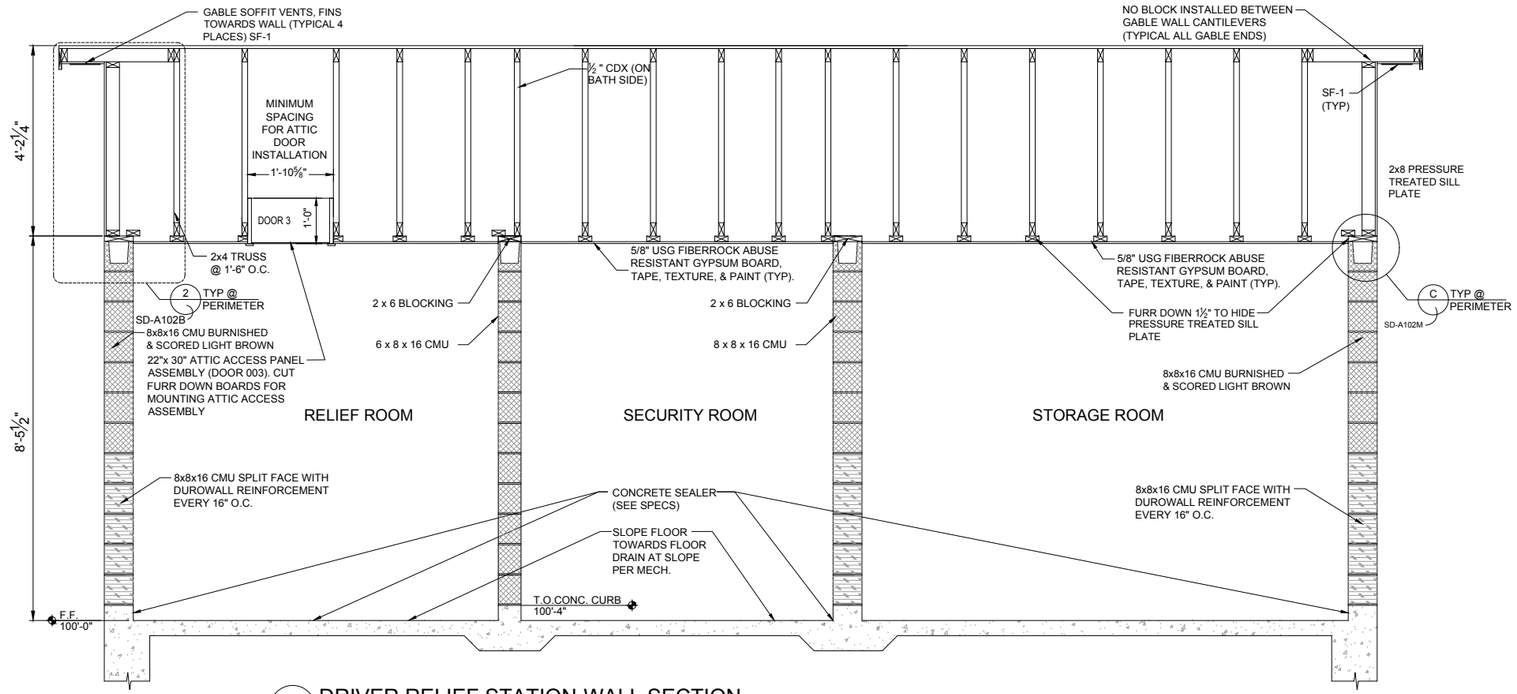


C DRIVER RELIEF STATION-SECTION
SCALE: 1/2" = 1'-0"



D DRIVER RELIEF STATION-WALL SECTION
SCALE: 1/2" = 1'-0"

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

ARCHITECTURAL
DRS TYPE IV SECTIONS

SHEET REFERENCE NUMBER:
SD-A104C
62 OF 68

SIGNAGE - GENERAL INFORMATION

1. SIGNAGE DESIGN AND PLACEMENT IS AN EXTREMELY IMPORTANT COMPONENT OF THE PASSENGER EXPERIENCE OF THE RTD TRANSIT SYSTEM. DESIGNERS SHALL WORK THROUGH SCENARIOS OF HOW PASSENGER AND VEHICULAR MOVEMENTS MAY BE AFFECTED BY SIGN PLACEMENT.
2. REGULATORY SIGNS SHALL COMPLY WITH MUTCD AND ADA.
3. SIGNAGE MAY NEED LOCAL AUTHORITY APPROVAL.
4. THE OVERALL LOOK OF RTD SIGNS IS DETERMINED BY THE RTD MARKETING DIVISION WITHIN THE COMMUNICATIONS DEPARTMENT. THE LOOK OF RTD SIGNS SHALL NOT BE ALTERED WITHOUT THE CONSENT OF THE MARKETING DIVISION.
5. RTD HAS A SIGN SHOP THAT CAN FABRICATE AND INSTALL MANY TYPES OF SIGNS. RTD MAY BE ABLE TO SUPPLY THE SIGN FACES. DESIGNER SHALL COORDINATE WITH THE RTD SIGN SHOP, TO WORK OUT WHAT RTD WILL PROVIDE.
6. RTD SHALL SUPPLY ORIGINAL ARTWORK.
7. DESIGNERS SHALL DESIGN SUPPORT STRUCTURES TO SUIT PROJECT PREFERENCES AND SITE CONDITIONS.
8. SAMPLE SIGNAGE DRAWINGS ARE PROVIDED AT THE END OF THIS SECTION.

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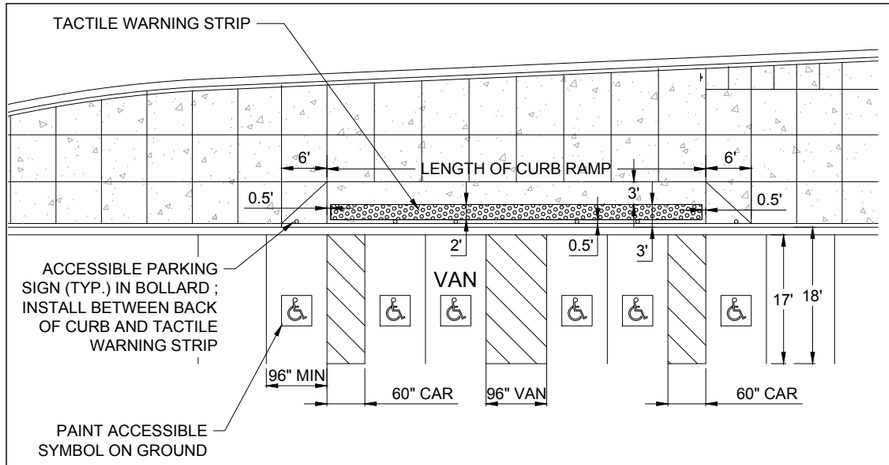
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
SIGNAGE - 1 OF 6

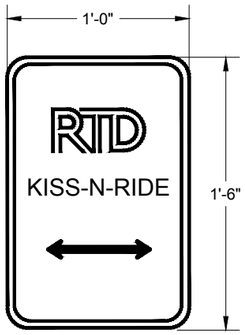
SHEET REFERENCE NUMBER:
SD-SN100
63 OF 68



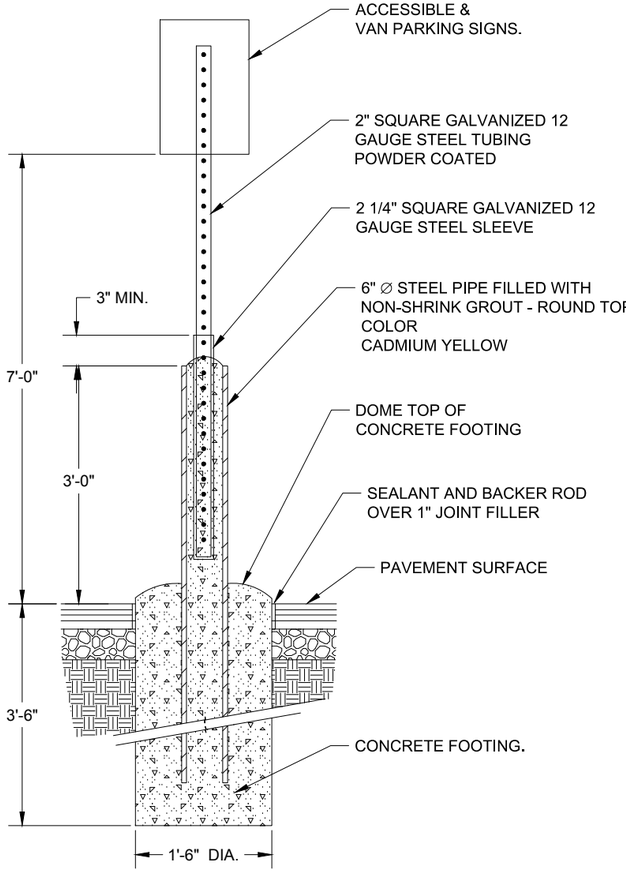
NOTE:

1. SIGN TO BE CENTERED AHEAD OF PARKING SPACE.
2. SLOPE OF GUTTER TO BE DEPRESSED TO MATCH SLOPE OF THE PARKING STALL.

1 TYPICAL SIGNING AND STRIPING AT ADA PARKING STALLS
1"= 10'

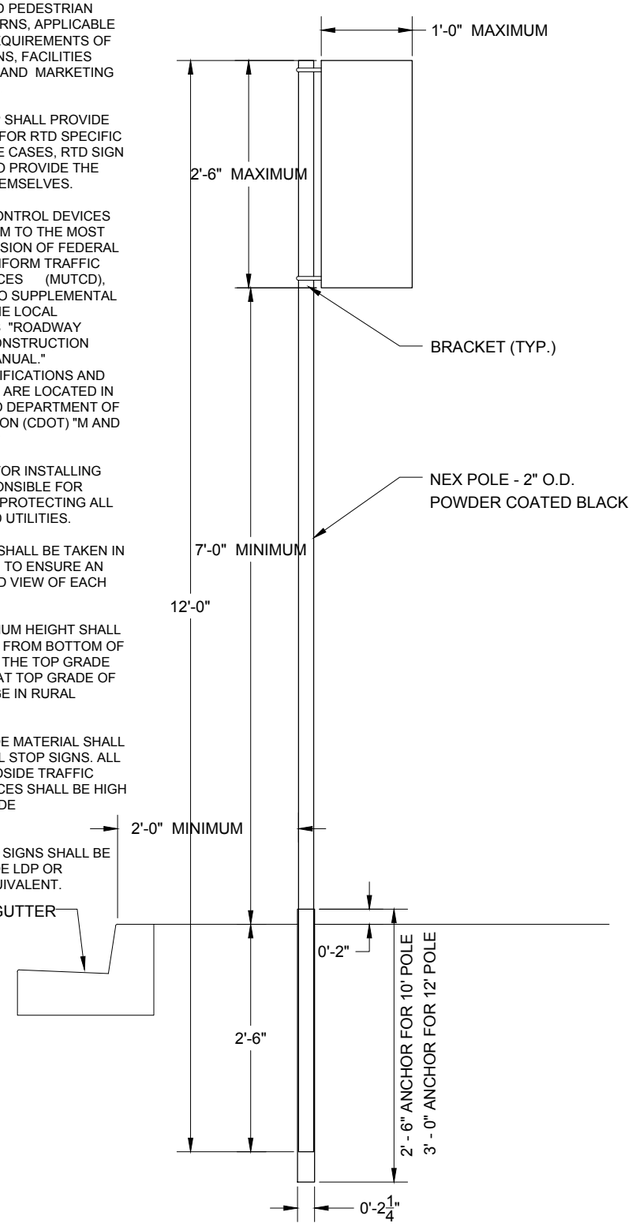


2 KISS-N-RIDE SIGN
1"=5'



3 ADA SIGN INSTALLATION
1"=10'

1. DEVELOP SIGNAGE PLAN FOR EACH SITE TO WORK WITH VEHICULAR AND PEDESTRIAN TRAFFIC PATTERNS, APPLICABLE CODES, AND REQUIREMENTS OF RTD OPERATIONS, FACILITIES MAINTENANCE, AND MARKETING DEPARTMENTS.
2. RTD SIGN SHOP SHALL PROVIDE THE ARTWORK FOR RTD SPECIFIC SIGNS. IN SOME CASES, RTD SIGN SHOP MAY ALSO PROVIDE THE SIGN FACES THEMSELVES.
3. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT VERSION OF FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE "COLORADO SUPPLEMENTAL MUTCD" AND THE LOCAL JURISDICTION'S "ROADWAY DESIGN AND CONSTRUCTION STANDARDS MANUAL." FURTHER SPECIFICATIONS AND ILLUSTRATIONS ARE LOCATED IN THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) "M AND S STANDARDS."
4. THE CONTRACTOR INSTALLING SIGNS IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES.
5. SPECIAL CARE SHALL BE TAKEN IN SIGN LOCATION TO ENSURE AN UNOBSTRUCTED VIEW OF EACH SIGN.
6. A 7-FOOT MINIMUM HEIGHT SHALL BE MAINTAINED FROM BOTTOM OF SIGN PANEL TO THE TOP GRADE OF SIDEWALK (AT TOP GRADE OF PAVEMENT EDGE IN RURAL AREAS).
7. DIAMOND GRADE MATERIAL SHALL BE USED ON ALL STOP SIGNS. ALL OTHER ROADSIDE TRAFFIC CONTROL DEVICES SHALL BE HIGH INTENSITY GRADE REFLECTIVITY.
8. ALL OVERHEAD SIGNS SHALL BE DIAMOND GRADE LDP OR APPROVED EQUIVALENT.



4 FLAG SIGN INSTALLATION
1"=10'

NOTE: SIGNAGE SHALL COMPLY WITH MUTCD, AND OTHER APPLICABLE REGULATIONS.

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
SIGNAGE - 2 OF 6

SHEET REFERENCE NUMBER:
SD-SN101A
64 OF 68

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1 SAMPLE PARK-N-RIDE IDENTIFICATION SIGNAGE
NOT TO SCALE

2 VARIATIONS DEPICTING DIFFERENT TRAVEL MODES
NOT TO SCALE

PARK-N-RIDE IDENTIFICATION SIGNAGE:

1. LARGE SIZE PARK-N-RIDE IDENTIFICATION SIGN SHALL BE 60" X 84".
2. SMALL SIZE PARK-N-RIDE IDENTIFICATION SIGN SHALL BE 30" X 42".

NO.	REVISIONS	BY	DATE
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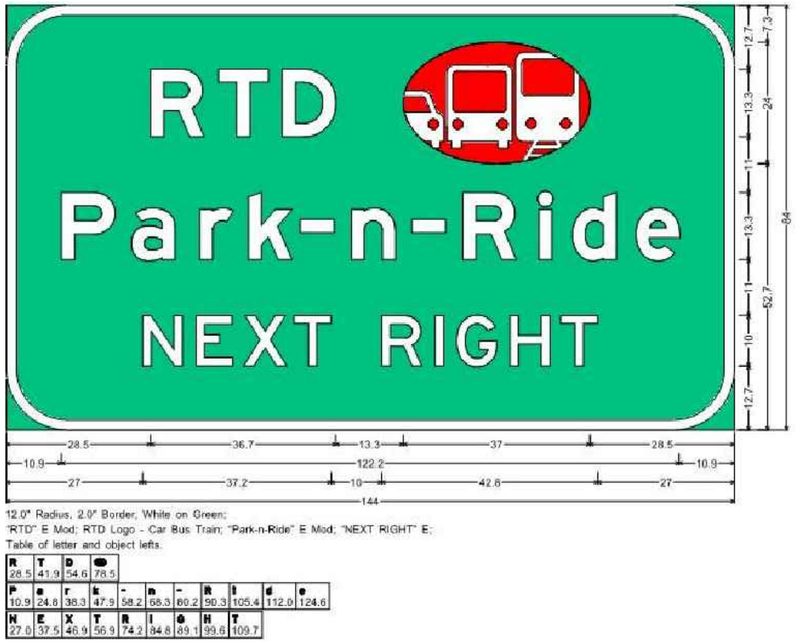
BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

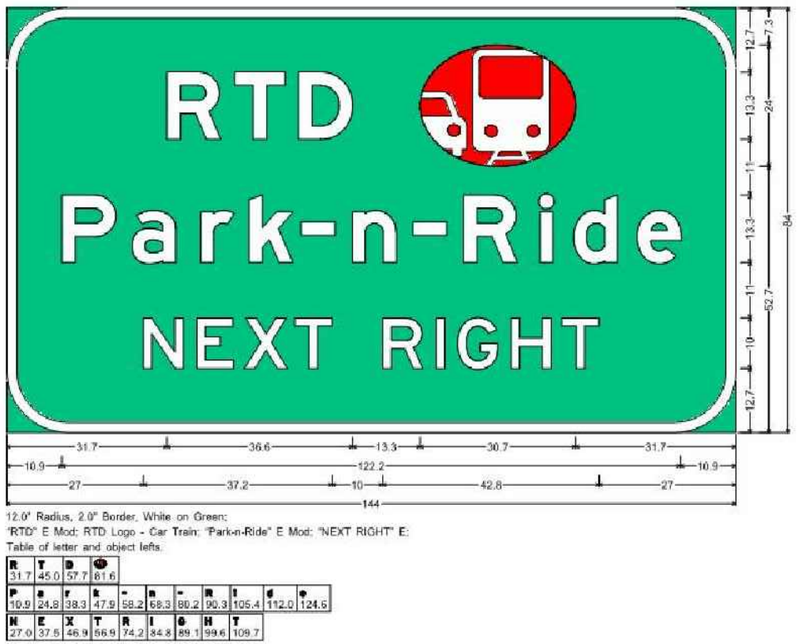
GENERAL
SIGNAGE - 3 OF 6

SHEET REFERENCE NUMBER:
SD-SN101B
65 OF 68



12.0" Radius, 2.0" Border, White on Green;
"RTD" E Mod; RTD Logo - Car Bus Train; "Park-n-Ride" E Mod; "NEXT RIGHT" E;
Table of letter and object lefts.

R 28.5	T 41.9	D 54.6	78.5
P 10.9	a 24.8	r 38.3	k 47.9
- 58.2	n 68.3	- 80.2	R 90.3
i 105.4	d 112.0	e 124.6	
N 27.0	E 37.5	X 46.9	T 56.9
R 74.2	I 84.8	e 89.1	H 99.6
T 109.7			

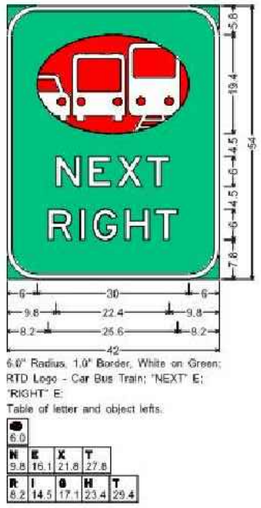


12.0" Radius, 2.0" Border, White on Green;
"RTD" E Mod; RTD Logo - Car Train; "Park-n-Ride" E Mod; "NEXT RIGHT" E;
Table of letter and object lefts.

R 31.7	T 45.0	D 57.7	81.6
P 10.9	a 24.8	r 38.3	k 47.9
- 58.2	n 68.3	- 80.2	R 90.3
i 105.4	d 112.0	e 124.6	
N 27.0	E 37.5	X 46.9	T 56.9
R 74.2	I 84.8	e 89.1	H 99.6
T 109.7			

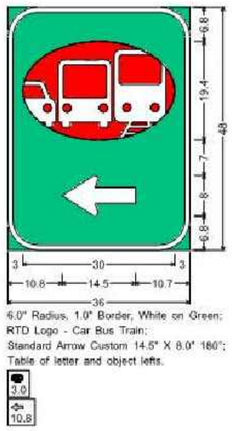
NOTES:

SIGNS IN CDOT ROW NEED APPROVAL BY CDOT.



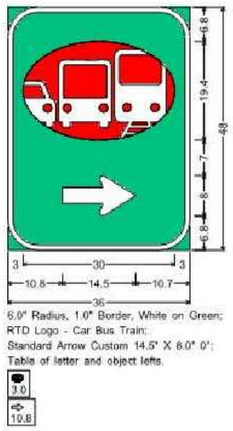
6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Bus Train; "NEXT" E;
"RIGHT" E;
Table of letter and object lefts.

6.0			
N 9.8	E 16.1	X 21.8	T 27.8
R 8.2	I 14.5	G 17.1	H 23.4
T 29.4			



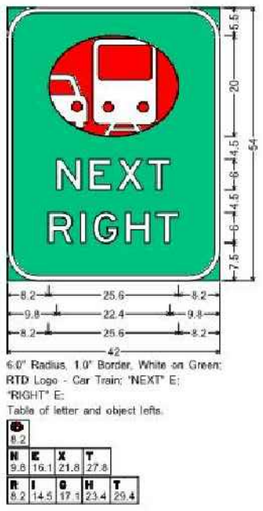
6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Bus Train;
Standard Arrow Custom 14.5" X 6.0" 180°;
Table of letter and object lefts.

3.0	
10.8	



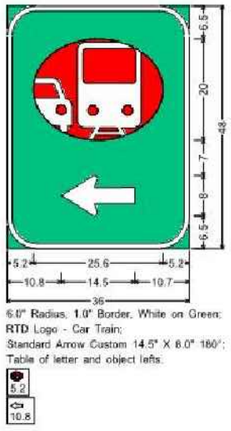
6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Bus Train;
Standard Arrow Custom 14.5" X 6.0" 0°;
Table of letter and object lefts.

3.0	
10.8	



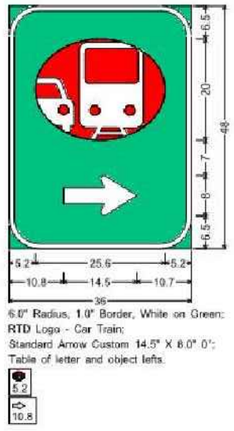
6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Train; "NEXT" E;
"RIGHT" E;
Table of letter and object lefts.

8.2			
N 9.8	E 16.1	X 21.8	T 27.8
R 8.2	I 14.5	G 17.1	H 23.4
T 29.4			



6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Train;
Standard Arrow Custom 14.5" X 6.0" 180°;
Table of letter and object lefts.

5.2	
10.8	



6.0" Radius, 1.0" Border, White on Green;
RTD Logo - Car Train;
Standard Arrow Custom 14.5" X 6.0" 0°;
Table of letter and object lefts.

5.2	
10.8	

2 SIGNS IN CDOT ROW
NOT TO SCALE

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BUS INFRASTRUCTURE STANDARD DRAWINGS
REGIONAL TRANSPORTATION DISTRICT

GENERAL
SIGNAGE - 4 OF 6

SHEET REFERENCE NUMBER:
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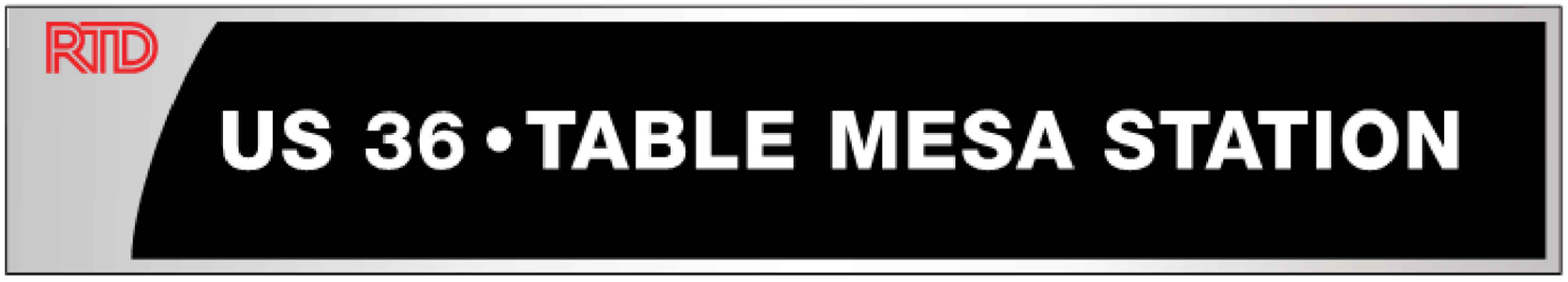
NOTES:

THESE SIGNS ARE PRODUCED BY RTD SIGN SHOP.

SIZES VARY FROM18" X 24" TO 26" X 30"

1 SAMPLE OFF-SITE SIGNAGE
NOT TO SCALE



NOTES:

SIGN SIZES CAN VARY TO ACCOMMODATE SITE SPECIFIC CONDITIONS. SIGN SHOWN WAS DESIGNED AS 108" X 18"

2 SPINE SIGNS
NOT TO SCALE

NO.	REVISIONS	BY	DATE
----	----	JV	----

DESIGNED BY: CH DATE: ######
DRAWN BY: ## DATE: ########
CHECKED BY: JS DATE: ######
APPROVED BY: HJS DATE: ######
FILE NAME: SEE LEFT MARGIN
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VERT. SCALE:
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RTD ENGINEERING DIVISION
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BUS INFRASTRUCTURE STANDARD DRAWINGS
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GENERAL
SIGNAGE - 5 OF 6

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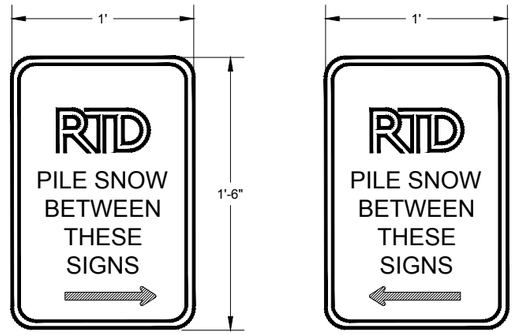

NOTES:

1. SHOW DESIGNATED SNOW STORAGE AREAS ON PARKING AND LANDSCAPING PLANS.
2. SNOW STORAGE AREAS SHALL BE LOCATED SO THAT MELT WATER CAN BE CAPTURED BY INLETS, WITHOUT BLOCKING IT.
3. SNOWMELT WATER SHALL BE DIRECTED AWAY FROM PASSENGER WALKWAYS.
4. LANDSCAPING MAY NEED TO BE MODIFIED TO THRIVE IN SNOWMELT AREAS.
5. SIGNAGE SHALL BE INSTALLED ON SITE, SO MAINTENANCE CREWS UNDERSTAND WHERE SNOW NEEDS TO BE PILED.
6. SIGNS SHALL BE INSTALLED SO THE BOTTOM OF THE SIGN PANEL WILL BE VISIBLE WHEN SNOW IS PILED

2 SNOW STORAGE SIGNS
NOT TO SCALE

NO.	REVISIONS	BY	DATE
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APPROVED BY: HJS DATE: ######
FILE NAME: SEE LEFT MARGIN
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