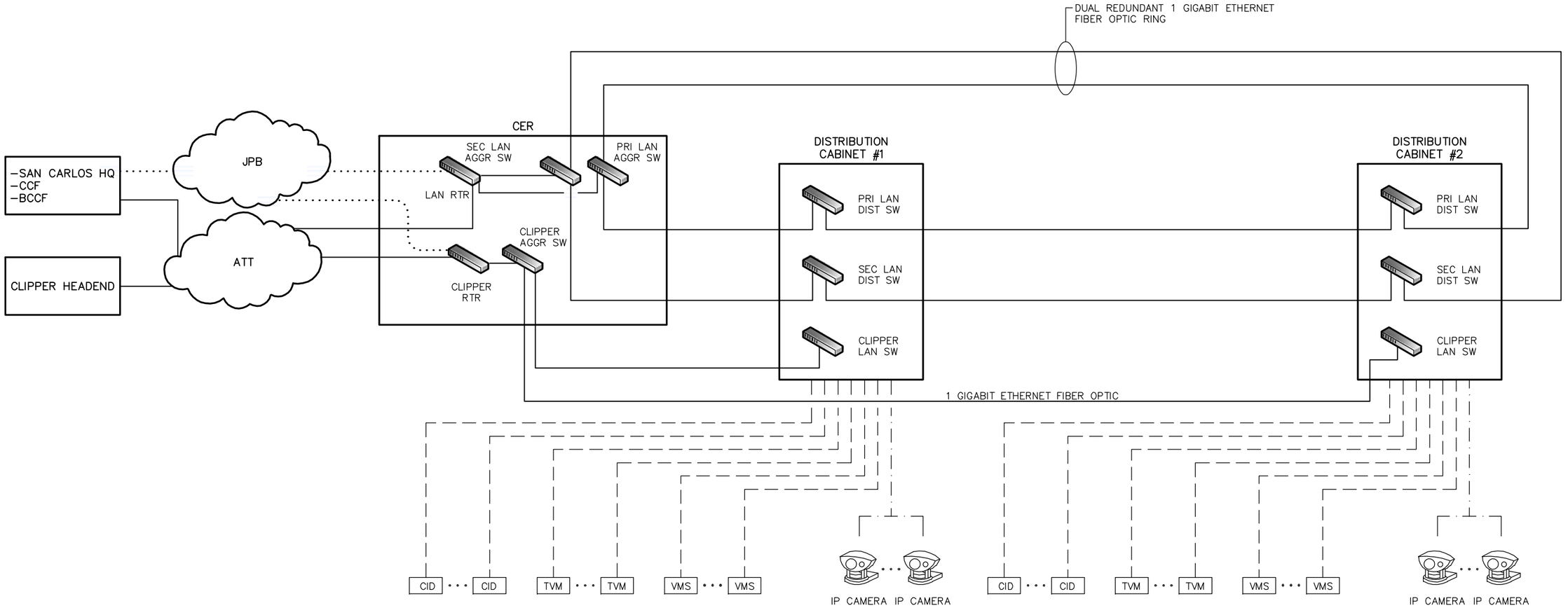

CALTRAIN STATION LAN
1–PLATFORM SUBSYSTEM DEVICES

10/100 MB (CAT 6A OR FIBER PoE)

10/100 MB SM FIBER

1 GB SM FIBER

DEV ••• DEV MULTIPLE DEVICES

JPB F.O. NETWORK

NOTES:

1. PHYSICAL SINGLE–MODE FIBER OPTIC RING TIES MAIN AND DISTRIBUTION SWITCH LOCATIONS.
2. HOME RUN F.O. CABLE BETWEEN DISTRIBUTION SWITCH AND EACH SUBSYSTEM DEVICE.
3. PRODUCT AVAILABILITY MAY ALLOW FIBER RING TOPOLOGY BETWEEN MULTIPLE SUBSYSTEM DEVICES FOR IMPROVED NETWORK RELIABILITY (FUTURE).
4. TWO 1 GB NETWORK SWITCHES ARE USED PER DISTRIBUTION CABINET FOR REDUNDANCY.
5. ACTUAL QUANTITY OF SUBSYSTEM DEVICES DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
6. SOME CALTRAIN STATIONS MAY STILL UTILIZE OUTDOOR STATION COMMUNICATIONS CABINETS (SCC), ALSO REFERRED TO AS COMMUNICATIONS INTERFACE CABINETS (CIC). ALL SCC'S/CIC'S WILL BE PHASED OUT AND REPLACED BY CERS. IN THESE DRAWINGS, SCC'S/CIC'S ARE OMITTED AND CER'S USED INSTEAD.
7. FOR NEW CONSTRUCTION AND REHABILITATION WORK, JPB OWNED FIBER OPTIC SHALL BE UTILIZED FOR STATION INTERFACE.
8. CID DEVICES ARE PROVIDED BY OTHERS.

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					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

Bin Zhang

DEPUTY DIRECTOR, ENGINEERING

Caltrain

1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS

STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
1–PLATFORM STATION LAN
LOGICAL TOPOLOGY

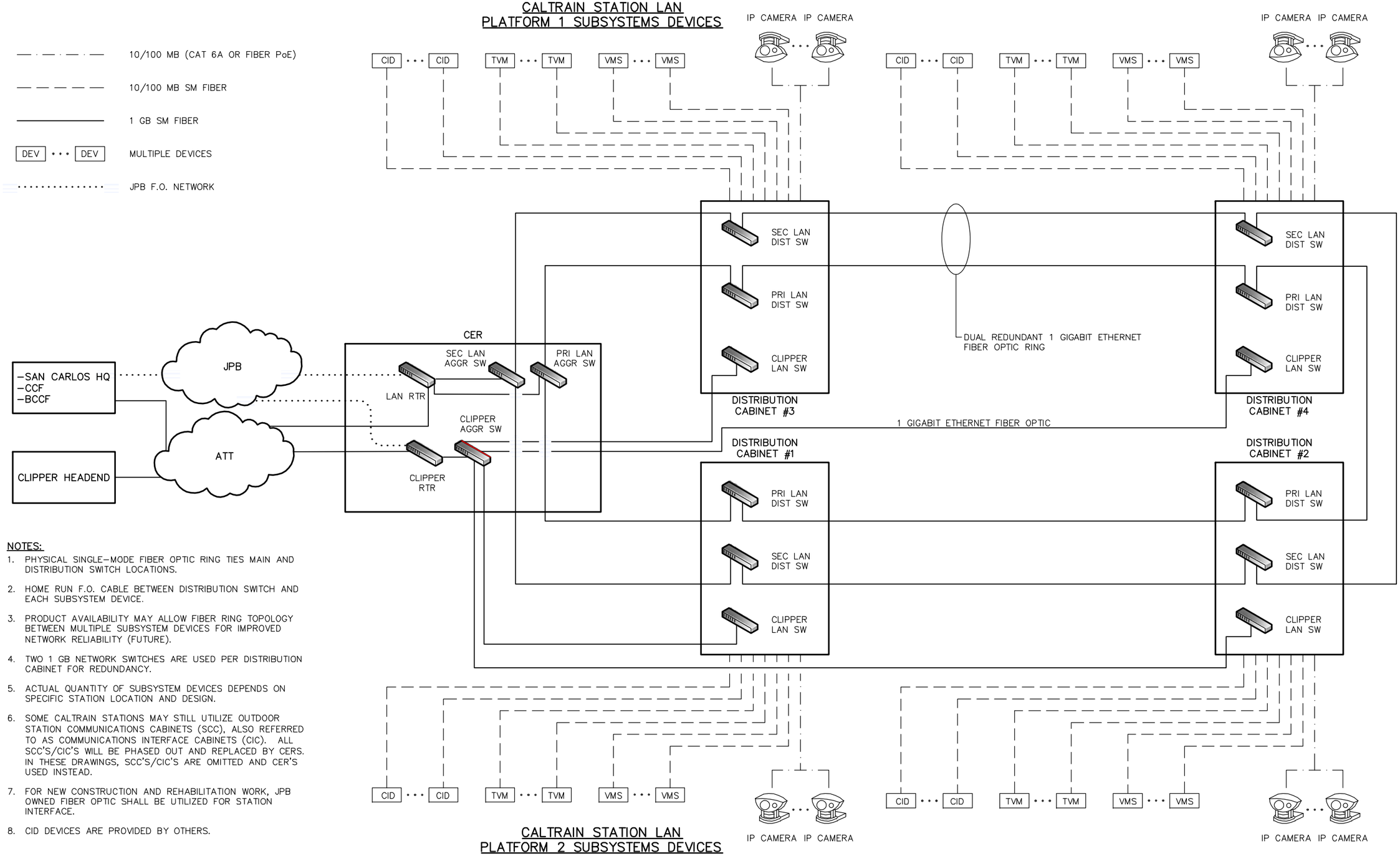
CADD FILE NAME: SD–4101

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD–4101

CALTRAIN STATION LAN
PLATFORM 1 SUBSYSTEMS DEVICES



NOTES:

1. PHYSICAL SINGLE–MODE FIBER OPTIC RING TIES MAIN AND DISTRIBUTION SWITCH LOCATIONS.
2. HOME RUN F.O. CABLE BETWEEN DISTRIBUTION SWITCH AND EACH SUBSYSTEM DEVICE.
3. PRODUCT AVAILABILITY MAY ALLOW FIBER RING TOPOLOGY BETWEEN MULTIPLE SUBSYSTEM DEVICES FOR IMPROVED NETWORK RELIABILITY (FUTURE).
4. TWO 1 GB NETWORK SWITCHES ARE USED PER DISTRIBUTION CABINET FOR REDUNDANCY.
5. ACTUAL QUANTITY OF SUBSYSTEM DEVICES DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
6. SOME CALTRAIN STATIONS MAY STILL UTILIZE OUTDOOR STATION COMMUNICATIONS CABINETS (SCC), ALSO REFERRED TO AS COMMUNICATIONS INTERFACE CABINETS (CIC). ALL SCC'S/CIC'S WILL BE PHASED OUT AND REPLACED BY CERS. IN THESE DRAWINGS, SCC'S/CIC'S ARE OMITTED AND CER'S USED INSTEAD.
7. FOR NEW CONSTRUCTION AND REHABILITATION WORK, JPB OWNED FIBER OPTIC SHALL BE UTILIZED FOR STATION INTERFACE.
8. CID DEVICES ARE PROVIDED BY OTHERS.

CALTRAIN STATION LAN
PLATFORM 2 SUBSYSTEMS DEVICES

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REV	DATE	BY	CHK	APP	DESCRIPTION

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STANDARD DRAWINGS

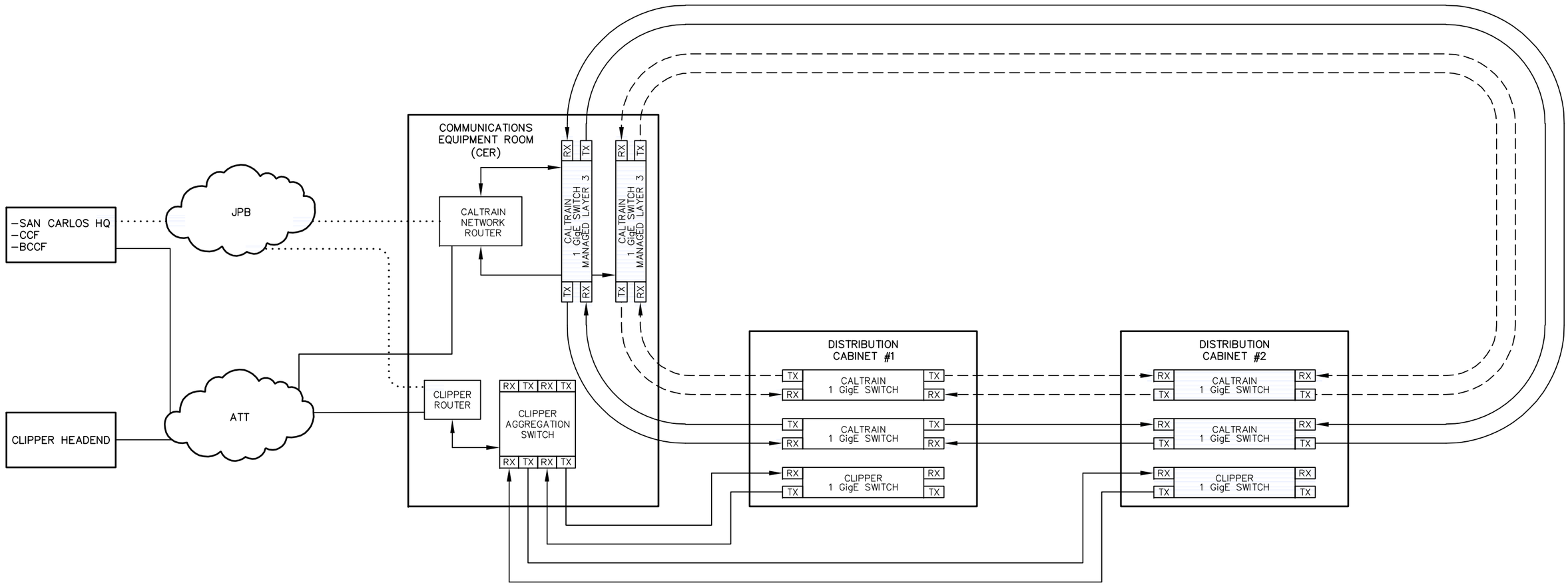
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
2–PLATFORM STATION LAN
LOGICAL TOPOLOGY

CADD FILE NAME: SD–4102

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD–4102



PLATFORM 1

1 GigE RING 1 SM FIBER

1 GigE RING 2 SM FIBER

DEV ··· DEV MULTIPLE DEVICES

JPB F.O. NETWORK

NOTES:

1. PHYSICAL SINGLE–MODE FIBER OPTIC RING TIES MAIN AND DISTRIBUTION SWITCH LOCATIONS.
2. HOME RUN F.O. CABLE BETWEEN DISTRIBUTION SWITCH AND EACH SUBSYSTEM DEVICE (STAR TOPOLOGY).
3. SUBSYSTEM DEVICE CONNECTIVITY SHALL BE EVENLY DISTRIBUTED BETWEEN RING 1 AND RING 2 NETWORK SWITCHES.
4. ACTUAL QUANTITY OF SUBSYSTEM DEVICES DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
5. EACH FIBER RING CONSISTS OF TWO (2) SINGLE–MODE FIBER STRANDS.
6. SOME CALTRAIN STATIONS MAY STILL UTILITIZE OUTDOOR STATION COMMUNICATIONS CABINETS (SCC), ALSO REFERRED TO AS COMMUNICATIONS INTERFACE CABINETS (CIC). ALL SCC'S/CIC'S WILL BE PHASED OUT AND REPLACED BY CERS. IN THESE DRAWINGS, SCC'S/CIC'S ARE OMITTED AND CER'S USED INSTEAD.
7. FOR NEW CONSTRUCTION AND REHABILITATION WORK, JPB OWNED FIBER OPTIC SHALL BE UTILIZED FOR STATION INTERFACE.
8. CID DEVICES ARE PROVIDED BY OTHERS.

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PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

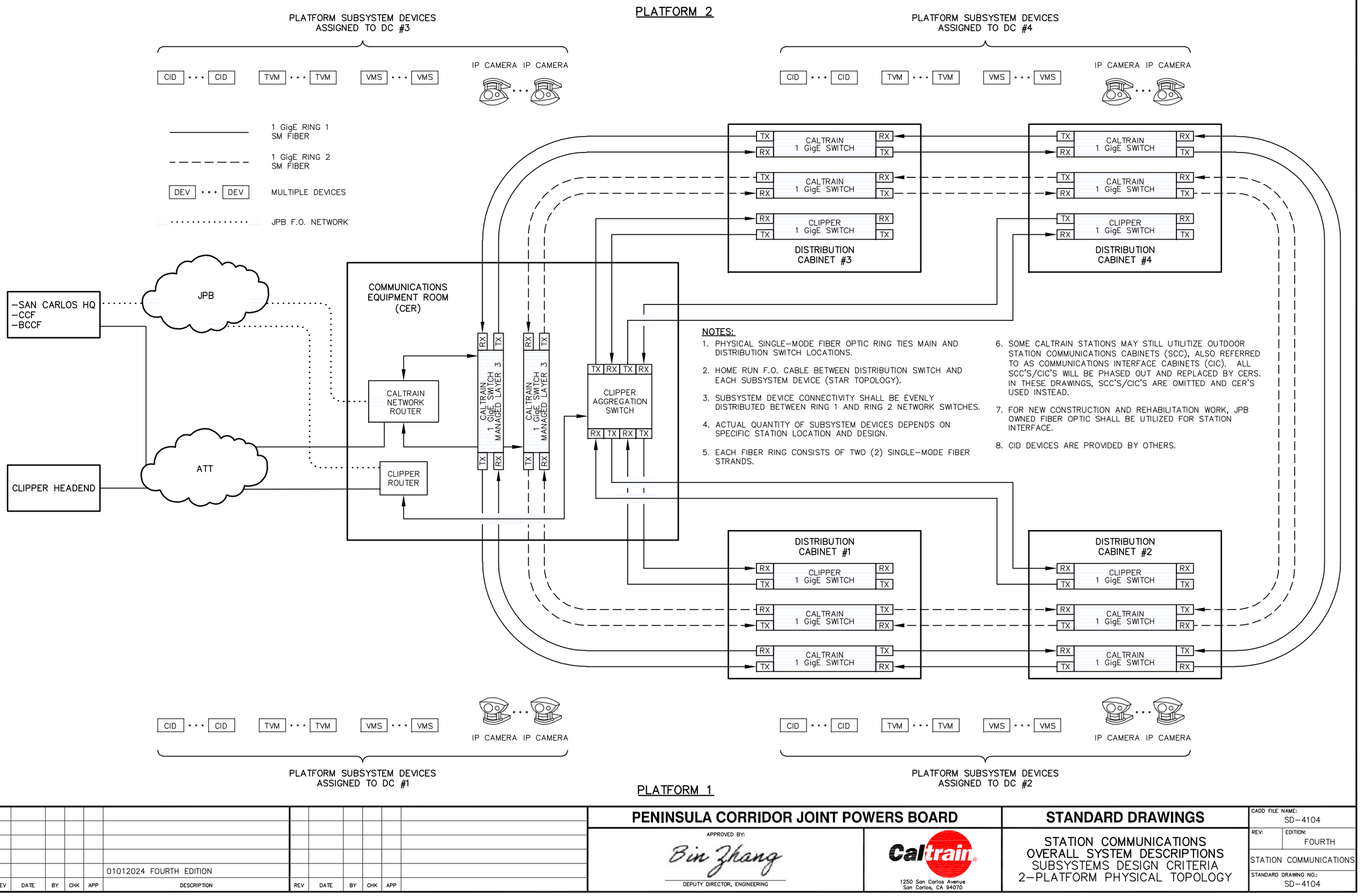
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
SUBSYSTEMS DESIGN CRITERIA
1–PLATFORM PHYSICAL TOPOLOGY

CADD FILE NAME: SD–4103

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD–4103



NOTES:

1. PHYSICAL SINGLE-MODE FIBER OPTIC RING TIES MAIN AND DISTRIBUTION SWITCH LOCATIONS.
2. HOME RUN F.O. CABLE BETWEEN DISTRIBUTION SWITCH AND EACH SUBSYSTEM DEVICE (STAR TOPOLOGY).
3. SUBSYSTEM DEVICE CONNECTIVITY SHALL BE EVENLY DISTRIBUTED BETWEEN RING 1 AND RING 2 NETWORK SWITCHES.
4. ACTUAL QUANTITY OF SUBSYSTEM DEVICES DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
5. EACH FIBER RING CONSISTS OF TWO (2) SINGLE-MODE FIBER STRANDS.
6. SOME CALTRAIN STATIONS MAY STILL UTILITIZE OUTDOOR STATION COMMUNICATIONS CABINETS (SCC), ALSO REFERRED TO AS COMMUNICATIONS INTERFACE CABINETS (CIC). ALL SCC'S/CIC'S WILL BE PHASED OUT AND REPLACED BY CERS. IN THESE DRAWINGS, SCC'S/CIC'S ARE OMITTED AND CER'S USED INSTEAD.
7. FOR NEW CONSTRUCTION AND REHABILITATION WORK, JPB OWNED FIBER OPTIC SHALL BE UTILIZED FOR STATION INTERFACE.
8. CID DEVICES ARE PROVIDED BY OTHERS.

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REV	DATE	BY	CHK	APP	DESCRIPTION

PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

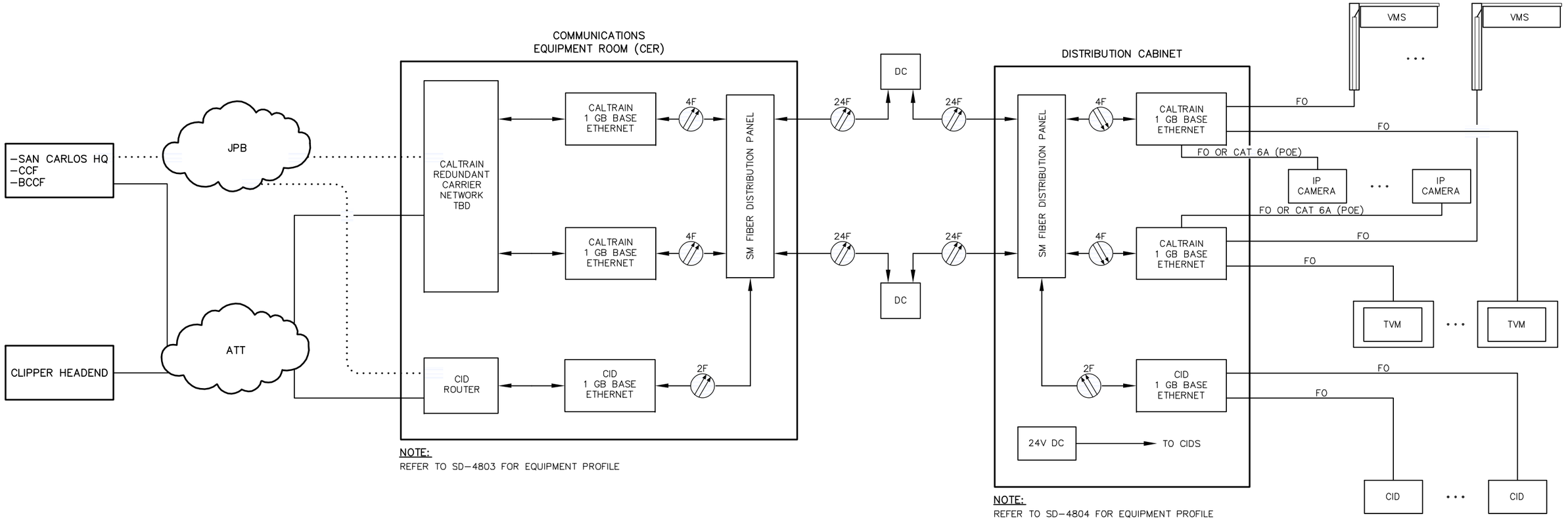
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
SUBSYSTEMS DESIGN CRITERIA
2-PLATFORM PHYSICAL TOPOLOGY

CADD FILE NAME: SD-4104

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4104



NOTE:
REFER TO SD–4803 FOR EQUIPMENT PROFILE

NOTE:
REFER TO SD–4804 FOR EQUIPMENT PROFILE

F — NUMBER OF SINGLE–MODE OPTICAL FIBERS

DC — DISTRIBUTION CABINET

DEV • • • DEV — MULTIPLE DEVICES

JPB F.O. NETWORK

NOTES:

1. FOR NEW CONSTRUCTION AND REHABILITATION WORK, JPB OWNED FIBER OPTIC SHALL BE UTILIZED FOR STATION INTERFACE.
2. REFER TO DRAWING SD–4834 FOR 24F CABLE TERMINATION.
3. SPECIFIC STATION DESIGN WILL DETERMINE THE QUANTITY OF DISTRIBUTION CABINETS. THE BACKBONE FIBER OPTIC CABLE SHALL BE A PHYSICALLY DIVERSE RING TOPOLOGY.
4. SEPARATE VIRTUAL LANS OF AT LEAST 100MB SHALL BE PARTITIONED FOR EACH TYPE OF SUBSYSTEM.
5. ACTUAL QUANTITY OF SUBSYSTEM DEVICES SHALL BE BASED ON SPECIFIC STATION DESIGN.
6. CID NETWORK DEVICES WILL BE SUPPLIED AND PROGRAMMED BY CLIPPER.

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					01012024 FOURTH EDITION

PENINSULA CORRIDOR JOINT POWERS BOARD

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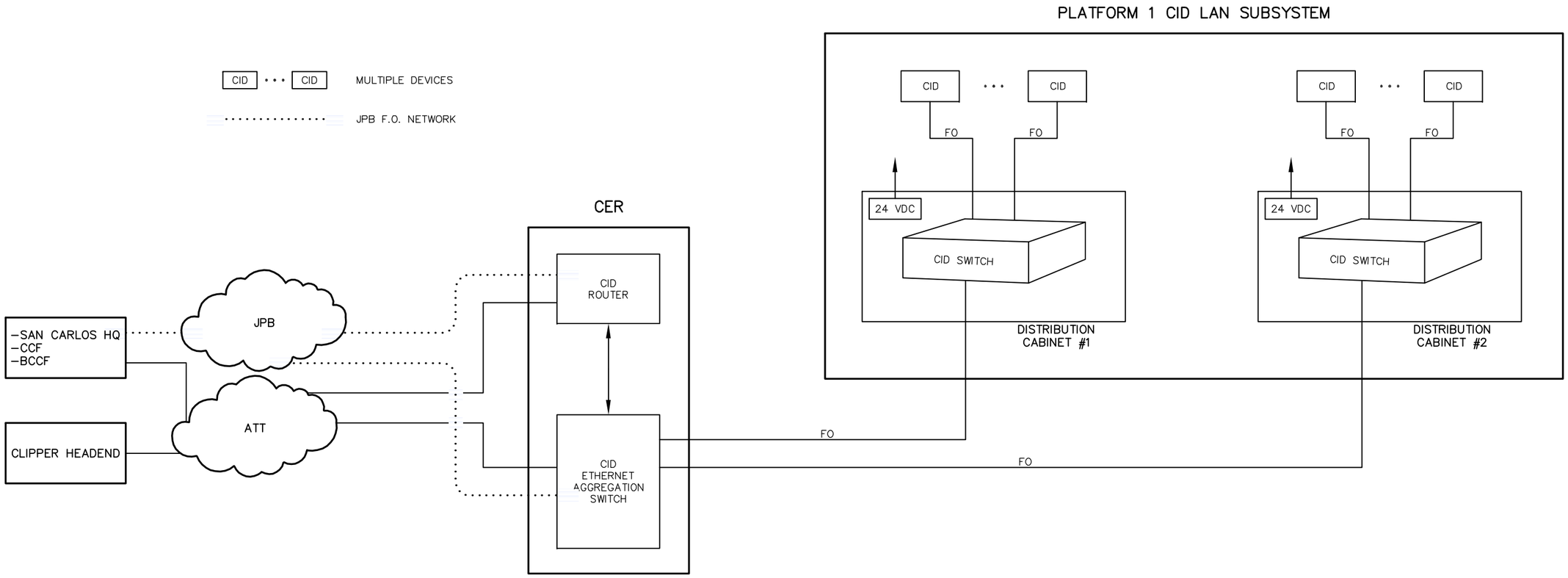
STANDARD DRAWINGS

STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
CAM, CID, TVM AND VMS SYSTEMS
PHYSICAL DISTRIBUTION TOPOLOGY

CADD FILE NAME: SD–4105
REV: | EDITION: FOURTH
STATION COMMUNICATIONS
STANDARD DRAWING NO.: SD–4105



NOTES:

1. PHYSICAL SINGLE MODE FIBER OPTIC NETWORK TIES MAIN AND DISTRIBUTION SWITCH AND EACH CID DEVICE (STAR TOPOLOGY).
2. ACTUAL QUANTITY OF CID EQUIPMENT DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
3. CLIPPER TO PROVIDE THE CID ROUTER, CID MAIN AND DISTRIBUTION SWITCHES, 24V DC POWER SUPPLIES AND CID DEVICES. CLIPPER TO TERMINATE CID DEVICES ON POLES FOR CID NETWORK AND PROVIDE ALL INTERCONNECTING CONDUIT AND COMMUNICATIONS/POWER WIRING. CALTRAIN TO FURNISH CID POLES AND TEMPORARY COVERS FOR INSTALLATION BY THE CONTRACTOR.
4. EACH CID DEVICE SHALL HAVE A DEDICATED AND PROTECTED 24VDC POWER CIRCUIT FROM THE DC CABINET.

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REV	DATE	BY	CHK	APP

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STANDARD DRAWINGS

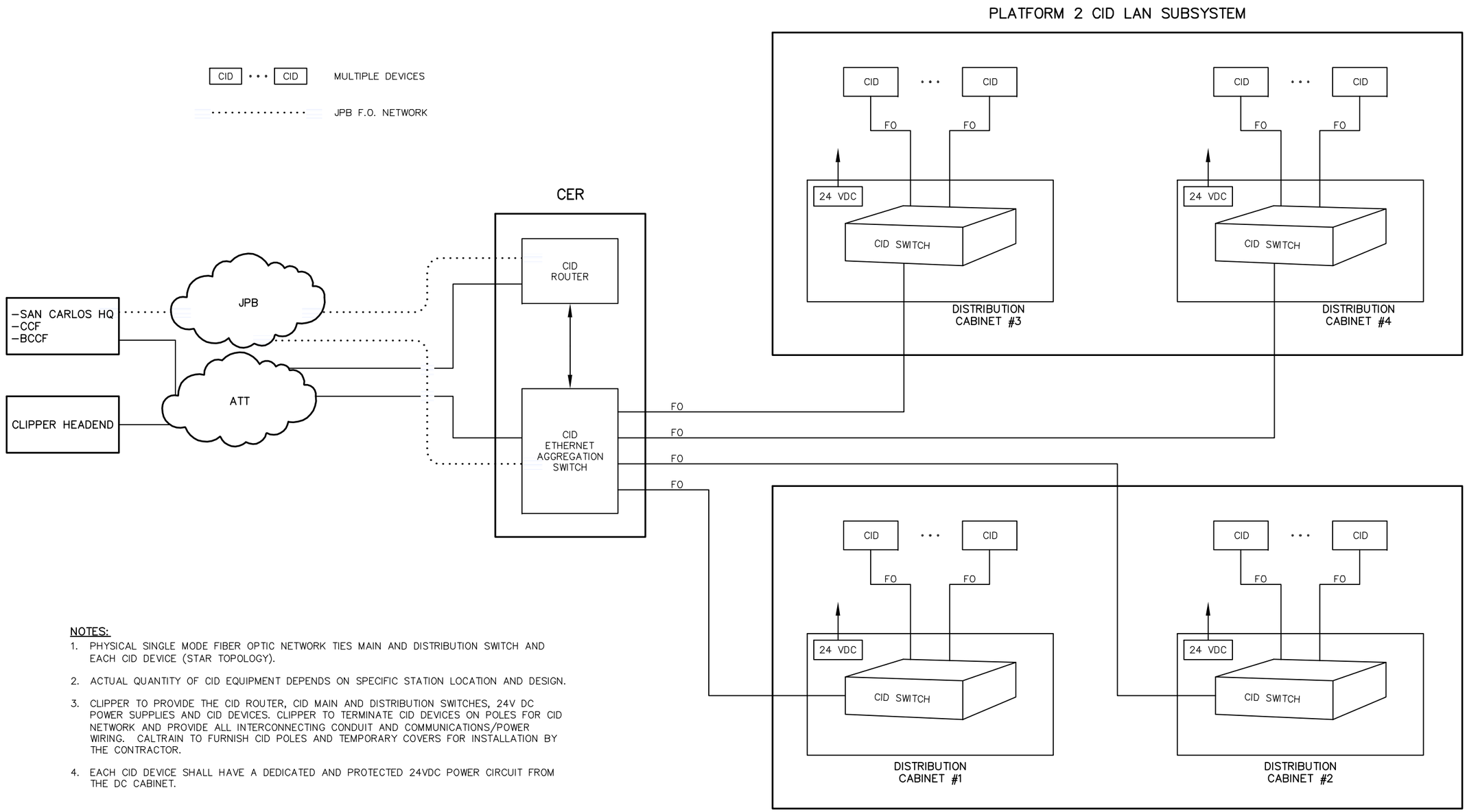
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
1-PLATFORM CID LAN SUBSYSTEM
LOGICAL TOPOLOGY

CADD FILE NAME: SD-4106

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4106



NOTES:

1. PHYSICAL SINGLE MODE FIBER OPTIC NETWORK TIES MAIN AND DISTRIBUTION SWITCH AND EACH CID DEVICE (STAR TOPOLOGY).
2. ACTUAL QUANTITY OF CID EQUIPMENT DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
3. CLIPPER TO PROVIDE THE CID ROUTER, CID MAIN AND DISTRIBUTION SWITCHES, 24V DC POWER SUPPLIES AND CID DEVICES. CLIPPER TO TERMINATE CID DEVICES ON POLES FOR CID NETWORK AND PROVIDE ALL INTERCONNECTING CONDUIT AND COMMUNICATIONS/POWER WIRING. CALTRAIN TO FURNISH CID POLES AND TEMPORARY COVERS FOR INSTALLATION BY THE CONTRACTOR.
4. EACH CID DEVICE SHALL HAVE A DEDICATED AND PROTECTED 24VDC POWER CIRCUIT FROM THE DC CABINET.

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PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

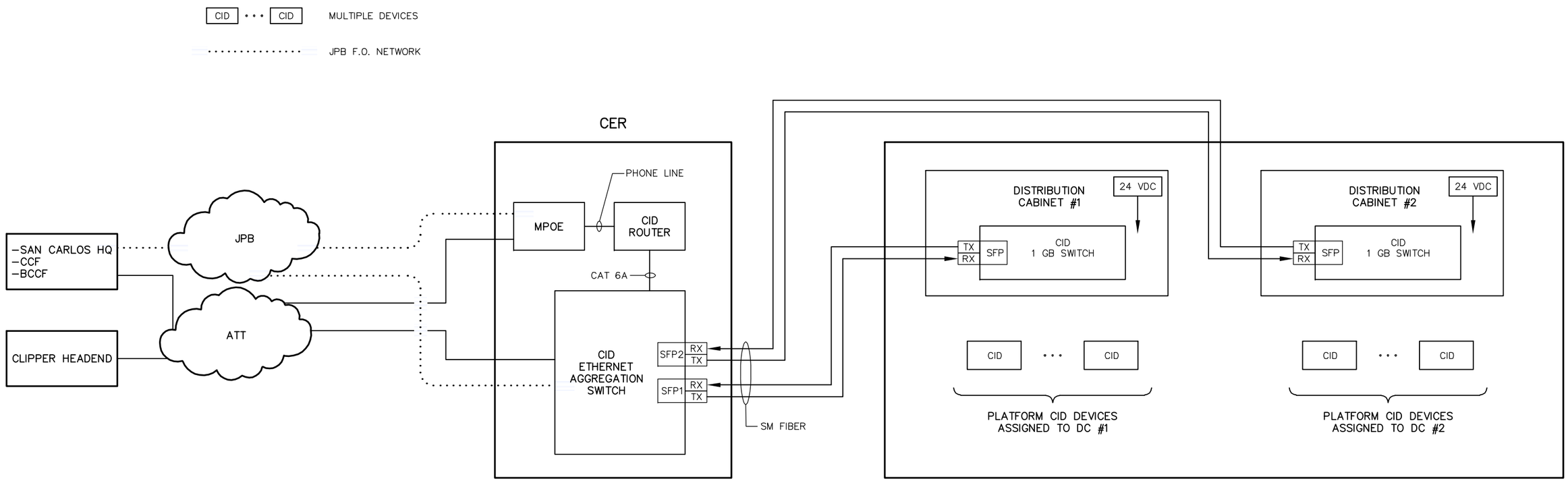
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
2-PLATFORM CID LAN SUBSYSTEM
LOGICAL TOPOLOGY

CADD FILE NAME: SD-4107

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4107



PLATFORM 1 CID LAN SUBSYSTEM

NOTES:

1. PHYSICAL SINGLE MODE FIBER OPTIC NETWORK TIES MAIN AND DISTRIBUTION SWITCH LOCATIONS (2 STRANDS OF FIBER PER LINK).
2. HOME RUN COMMUNICATIONS FO CABLE BETWEEN DISTRIBUTION SWITCH AND EACH ASSOCIATED CID DEVICE.
3. ACTUAL QUANTITY OF SHOWN DEVICES DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
4. FOR CLARITY, INTERMEDIATE CROSS-CONNECT PATCH-PANEL EQUIPMENT AND CORDS ARE NOT SHOWN.
5. EACH CID DEVICE SHALL HAVE DEDICATED AND PROTECTED 24 VDC POWER CIRCUIT FROM THE DC CABINET.

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REV	DATE	BY	CHK	APP

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STANDARD DRAWINGS

STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
1-PLATFORM CID LAN SUBSYSTEM
PHYSICAL TOPOLOGY

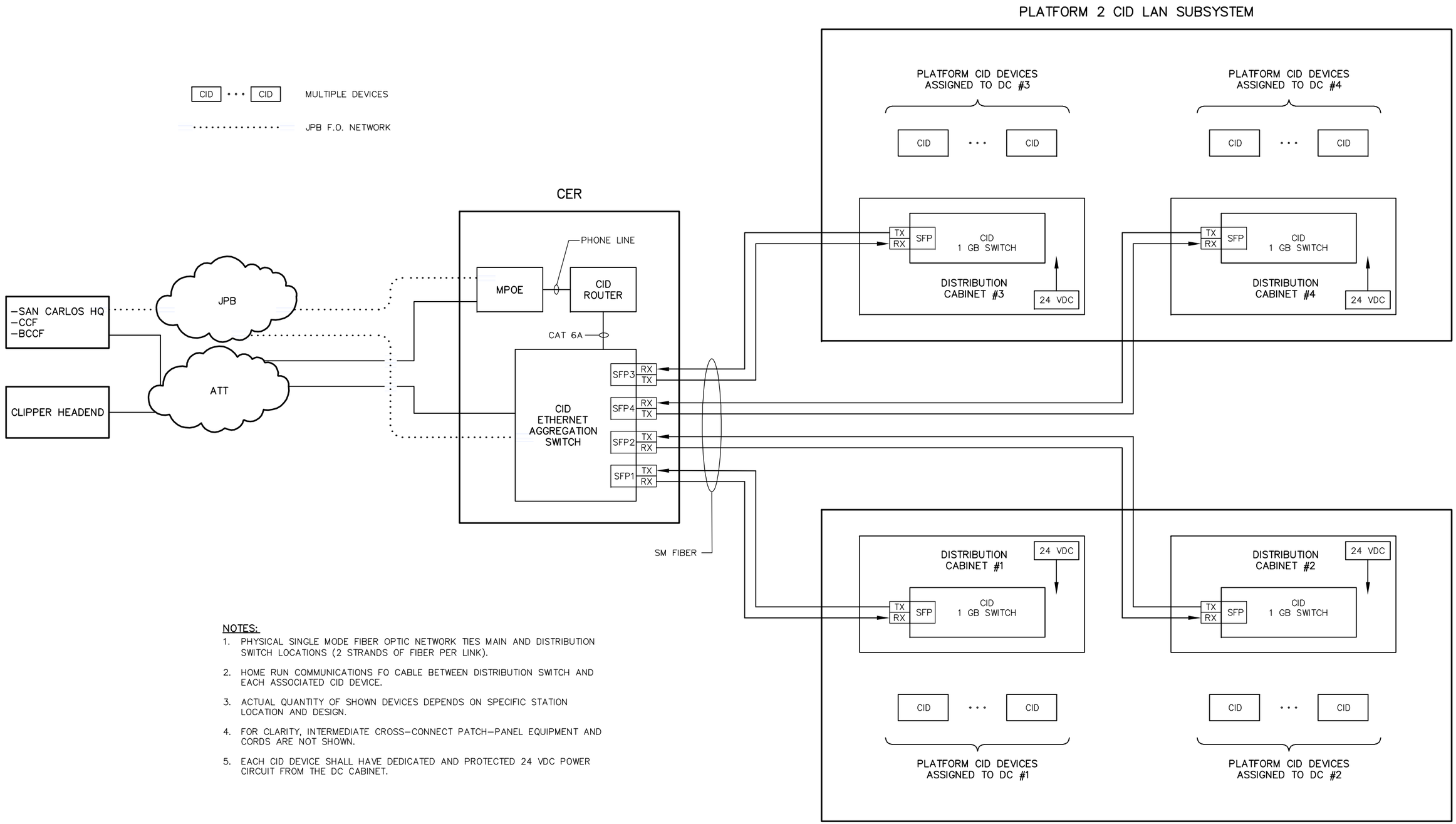
CADD FILE NAME: SD-4108

REV:

EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4108



NOTES:

1. PHYSICAL SINGLE MODE FIBER OPTIC NETWORK TIES MAIN AND DISTRIBUTION SWITCH LOCATIONS (2 STRANDS OF FIBER PER LINK).
2. HOME RUN COMMUNICATIONS FO CABLE BETWEEN DISTRIBUTION SWITCH AND EACH ASSOCIATED CID DEVICE.
3. ACTUAL QUANTITY OF SHOWN DEVICES DEPENDS ON SPECIFIC STATION LOCATION AND DESIGN.
4. FOR CLARITY, INTERMEDIATE CROSS–CONNECT PATCH–PANEL EQUIPMENT AND CORDS ARE NOT SHOWN.
5. EACH CID DEVICE SHALL HAVE DEDICATED AND PROTECTED 24 VDC POWER CIRCUIT FROM THE DC CABINET.

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					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP	DESCRIPTION

PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

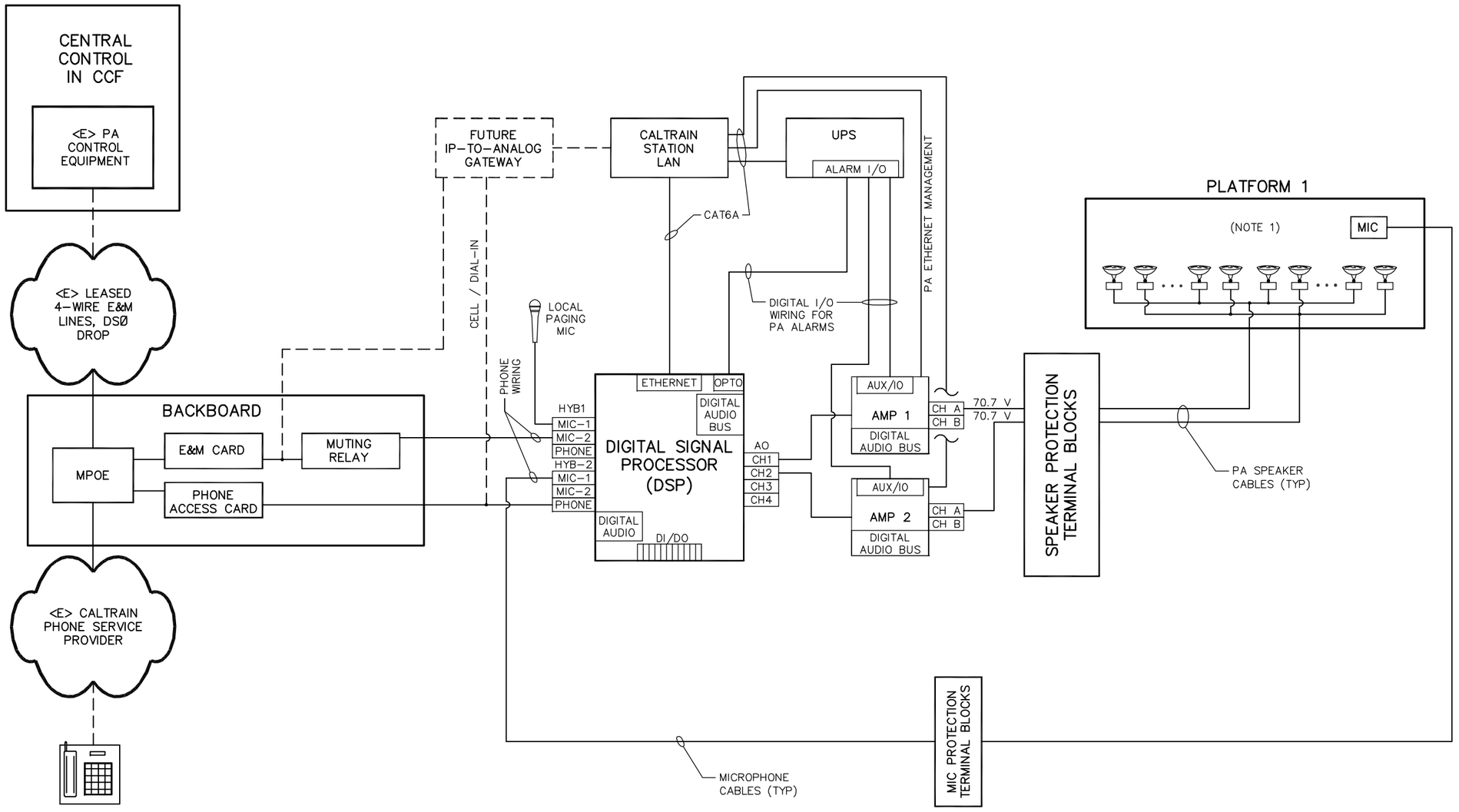
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
2–PLATFORM CID LAN SUBSYSTEM
PHYSICAL TOPOLOGY

CADD FILE NAME: SD–4109

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD–4109



NOTE:

PLATFORM SPEAKERS SHALL BE WIRED IN A MANNER SUCH THAT NO TWO ADJACENT SPEAKERS ARE ASSIGNED THE SAME AMPLIFIER.

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STANDARD DRAWINGS

STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
1-PLATFORM PA SYSTEM
PHYSICAL TOPOLOGY

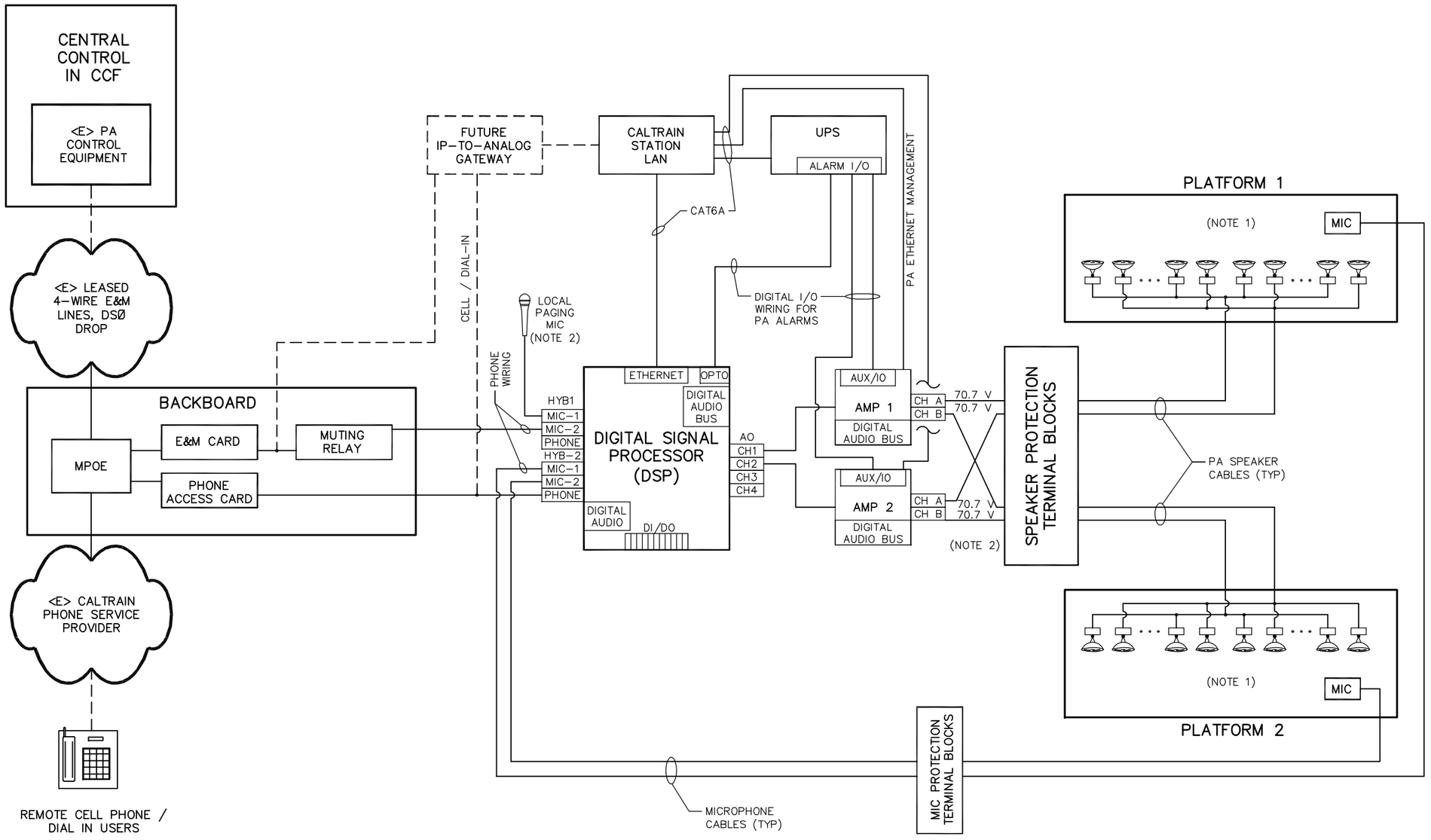
CADD FILE NAME: SD-4110

REV:

EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4110



NOTES:

1. PLATFORM SPEAKERS SHALL BE WIRED IN A MANNER SUCH THAT NO TWO ADJACENT SPEAKERS ARE ASSIGNED THE SAME AMPLIFIER.
2. PLATFORM 1 AND PLATFORM 2 SPEAKERS SHALL BE TERMINATED ON TWO SEPARATE OUTPUTS.

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REV	DATE	BY	CHK	APP	DESCRIPTION

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STANDARD DRAWINGS

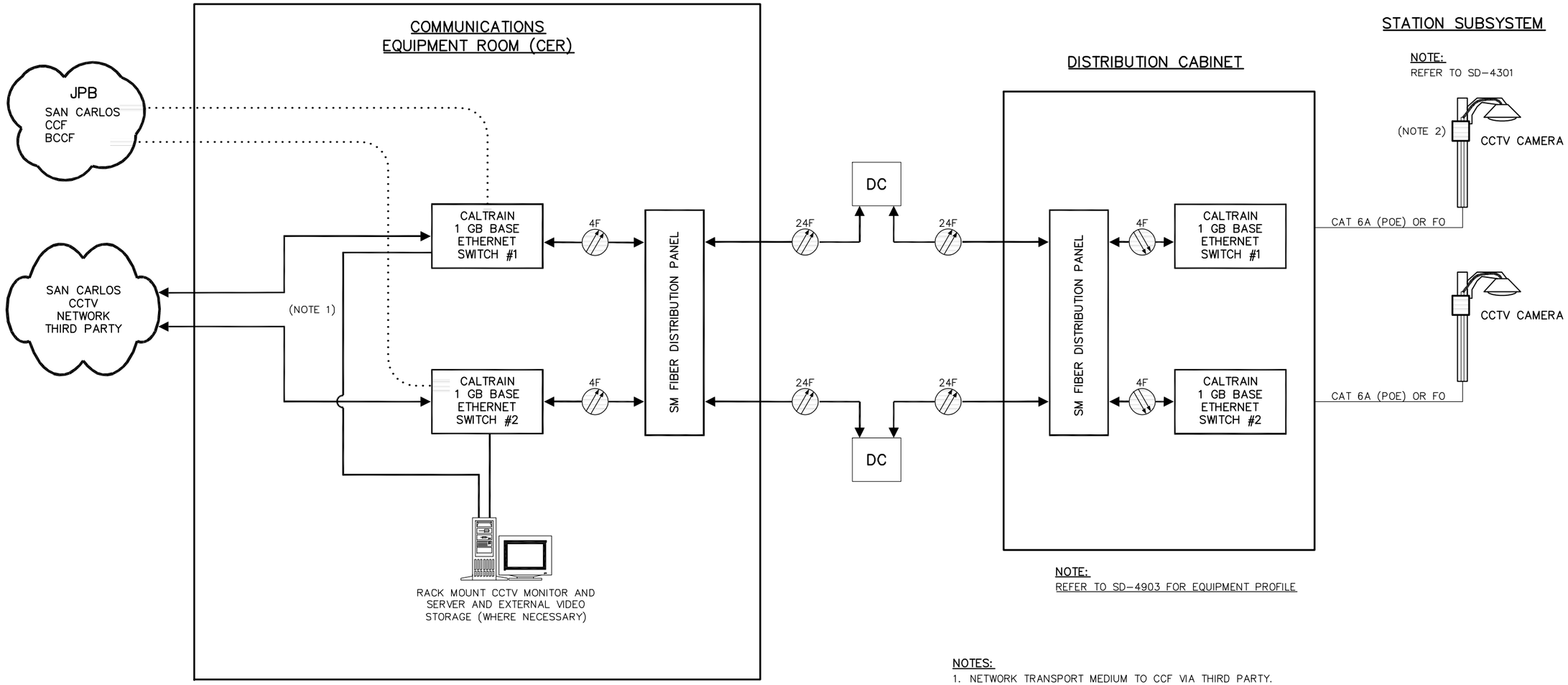
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
2-PLATFORM PA SYSTEM
PHYSICAL TOPOLOGY

CADD FILE NAME: SD-4111

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4111



NOTE:
REFER TO SD-4903 FOR EQUIPMENT PROFILE

..... JPB OWNED FIBER OPTIC NETWORK

DC — DISTRIBUTION CABINET

F — NUMBER OF SINGLE-MODE OPTICAL FIBERS

NOTES:

1. NETWORK TRANSPORT MEDIUM TO CCF VIA THIRD PARTY.
2. CCTV INTERFACE CABINET EQUIPPED WITH MEDIA CONVERTER OR ETHERNET SWITCH, POWER SUPPLY AND ACCESSORIES AS REQUIRED FOR COMMUNICATIONS OF F.O. CABLE.
3. CCTV TOTAL BANDWIDTH AND STORAGE CALCULATIONS TO BE PROVIDED.
4. SEPARATE VIRTUAL LANS OF AT LEAST 100MB SHALL BE PARTITIONED FOR EACH TYPE OF SUBSYSTEM.
5. VIDEO RECORDING (SERVER) SHALL RESIDE AT STATION CER, WITH REMOTE ACCESS FROM CALTRAIN CCTV HEAD END IN SAN CARLOS, CCF OR BCCF.
6. ACTUAL QUANTITY AND LOCATION OF SUBSYSTEM DEVICES SHALL BE BASED ON SPECIFIC STATION DESIGN AND SHALL BE COORDINATED WITH JPB.

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					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP	DESCRIPTION

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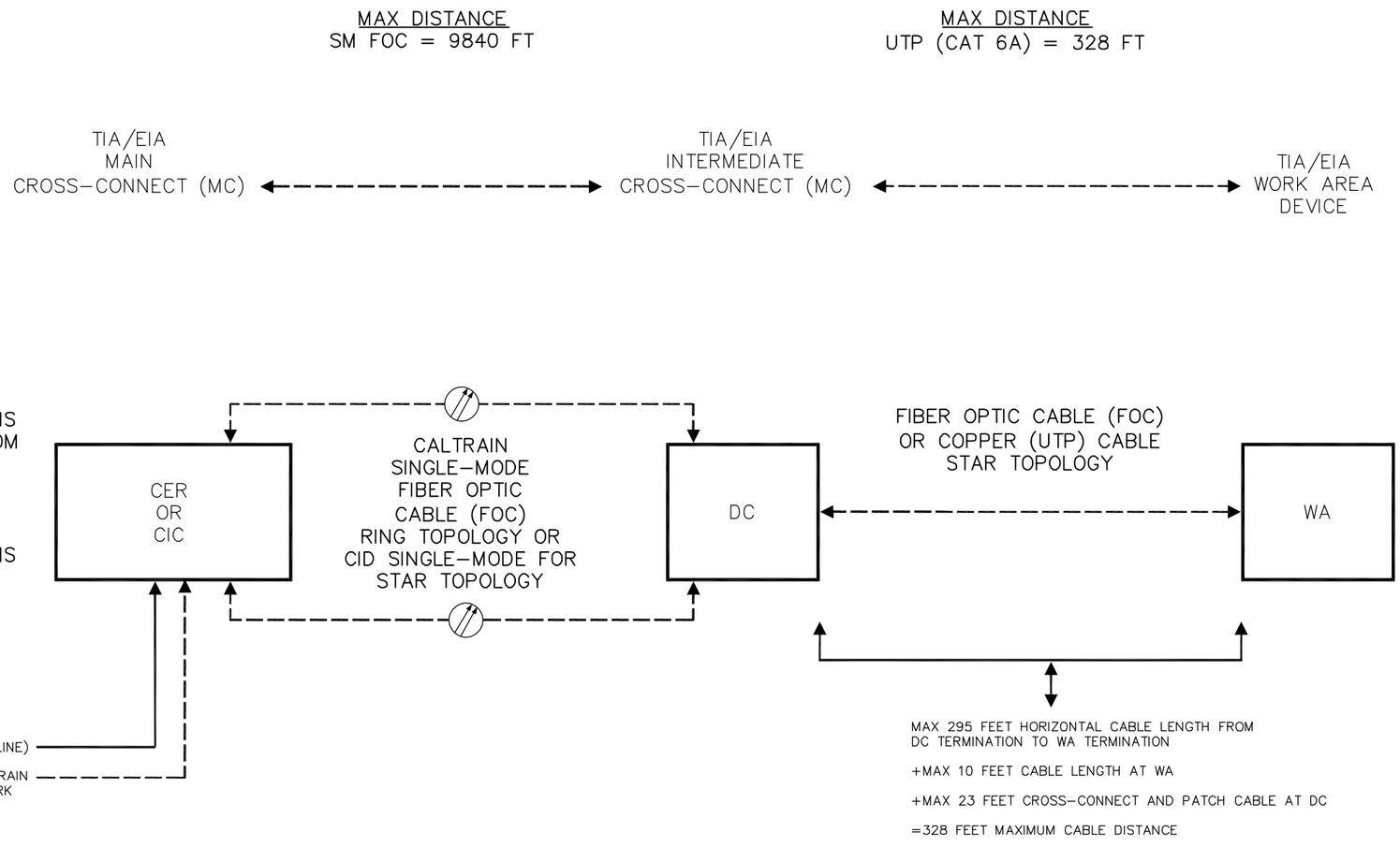
STANDARD DRAWINGS

STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
CCTV SYSTEM
PHYSICAL DISTRIBUTION TOPOLOGY

CADD FILE NAME:	SD-4112
REV:	EDITION: FOURTH
STATION COMMUNICATIONS	
STANDARD DRAWING NO.:	SD-4112

NOTES:

1. REFERENCE ANSI/TIA/EIA 568, COMMERCIAL BUILDING TELE-COMMUNICATIONS CABLING STANDARD.
2. WA (WORK AREA) CAN BE ANY NETWORK DEVICE SUCH AS: VMS, TVM, CCTV, CID OR DATA OUTLET.
3. EACH UTP CABLE SHALL BE PROTECTED AT THE ENTRANCE OF THE DC OR CER BY USE OF APPROPRIATE SURGE / LIGHTNING PROTECTOR.



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REV	DATE	BY	CHK	APP	DESCRIPTION

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San Carlos, CA 94070

STANDARD DRAWINGS

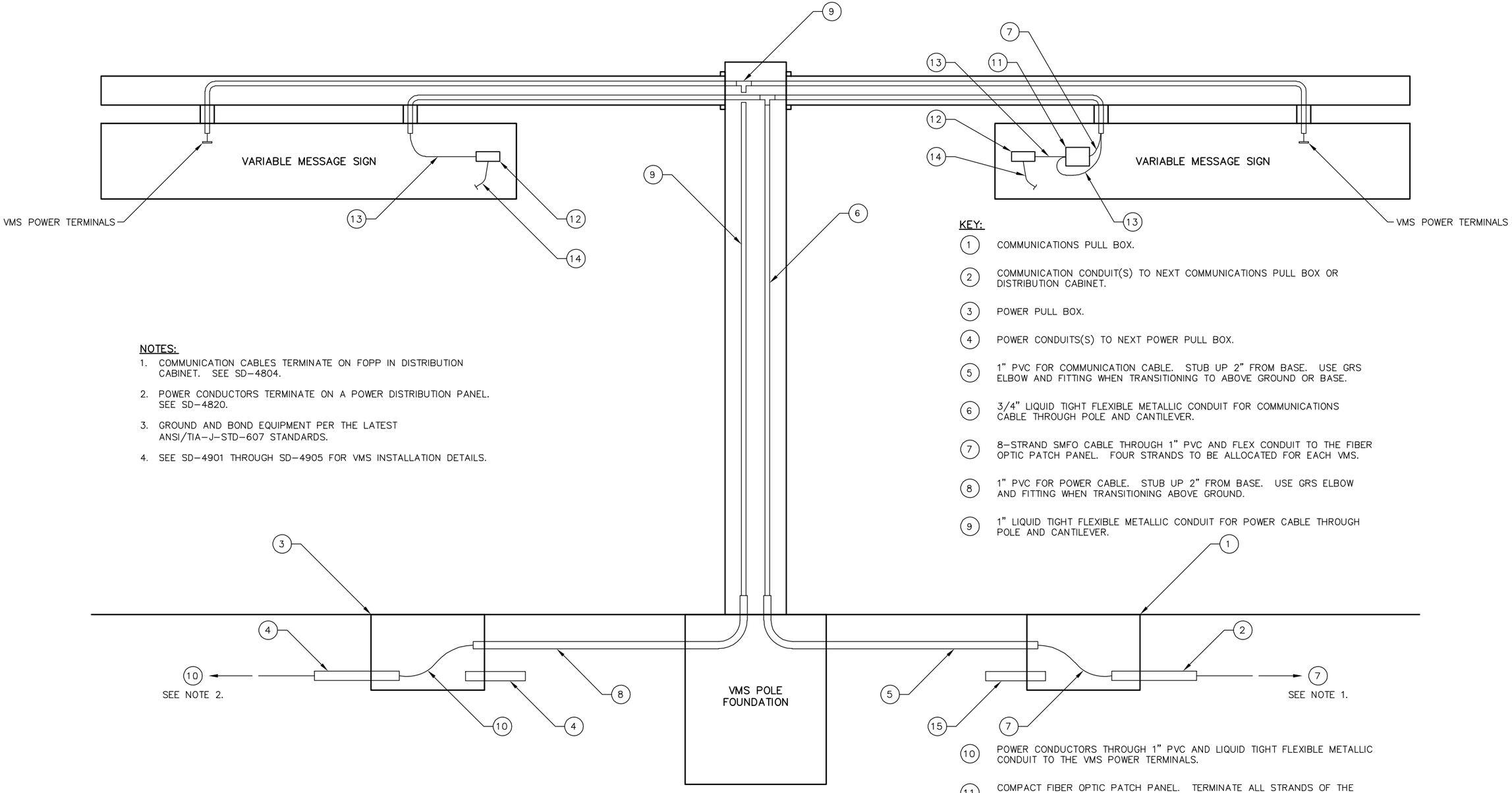
STATION COMMUNICATIONS
OVERALL SYSTEM DESCRIPTIONS
NETWORK CABLE DISTRIBUTION
TIA/EIA STANDARDS

CADD FILE NAME: SD-4113

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4113



VMS SUBSYTEM AND EQUIPMENT DETAILS

ELEVATION

SCALE: NTS

NOTES:

1. COMMUNICATION CABLES TERMINATE ON FOPP IN DISTRIBUTION CABINET. SEE SD-4804.
2. POWER CONDUCTORS TERMINATE ON A POWER DISTRIBUTION PANEL. SEE SD-4820.
3. GROUND AND BOND EQUIPMENT PER THE LATEST ANSI/TIA-J-STD-607 STANDARDS.
4. SEE SD-4901 THROUGH SD-4905 FOR VMS INSTALLATION DETAILS.

KEY:

1. COMMUNICATIONS PULL BOX.
2. COMMUNICATION CONDUIT(S) TO NEXT COMMUNICATIONS PULL BOX OR DISTRIBUTION CABINET.
3. POWER PULL BOX.
4. POWER CONDUITS(S) TO NEXT POWER PULL BOX.
5. 1" PVC FOR COMMUNICATION CABLE. STUB UP 2" FROM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO ABOVE GROUND OR BASE.
6. 3/4" LIQUID TIGHT FLEXIBLE METALLIC CONDUIT FOR COMMUNICATIONS CABLE THROUGH POLE AND CANTILEVER.
7. 8-STRAND SMFO CABLE THROUGH 1" PVC AND FLEX CONDUIT TO THE FIBER OPTIC PATCH PANEL. FOUR STRANDS TO BE ALLOCATED FOR EACH VMS.
8. 1" PVC FOR POWER CABLE. STUB UP 2" FROM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING ABOVE GROUND.
9. 1" LIQUID TIGHT FLEXIBLE METALLIC CONDUIT FOR POWER CABLE THROUGH POLE AND CANTILEVER.
10. POWER CONDUCTORS THROUGH 1" PVC AND LIQUID TIGHT FLEXIBLE METALLIC CONDUIT TO THE VMS POWER TERMINALS.
11. COMPACT FIBER OPTIC PATCH PANEL. TERMINATE ALL STRANDS OF THE SMFO CABLE.
12. MEDIA CONVERTER.
13. SM FIBER OPTIC PATCH CABLE.
14. CAT 6A PATCH CABLE TO CONTROLLER.
15. COMMUNICATIONS CONDUIT(S) TO NEXT COMMUNICATIONS PULL BOX.

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REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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San Carlos, CA 94070

STANDARD DRAWINGS

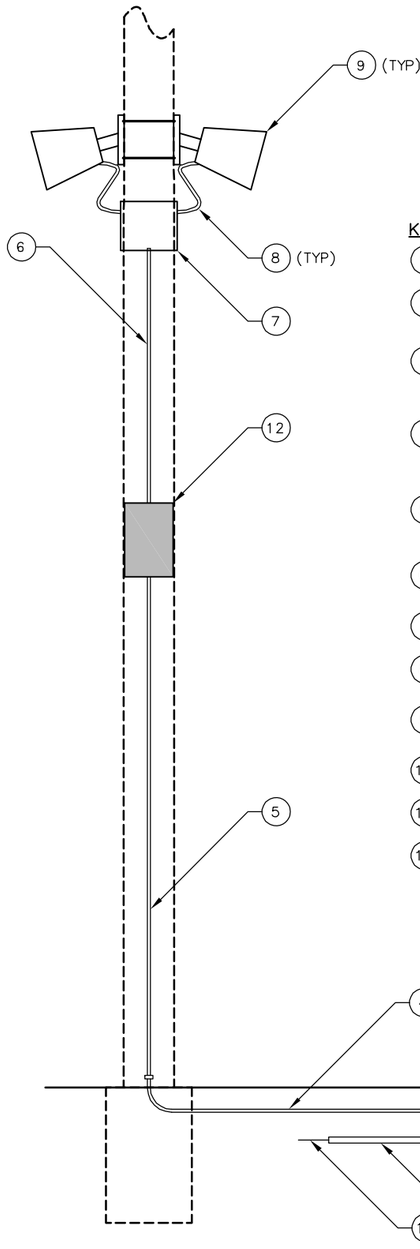
STATION COMMUNICATIONS
PASSENGERS INFO SYSTEM
VMS SUBSYSTEM
AND EQUIPMENT DETAILS

CADD FILE NAME: SD-4201

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

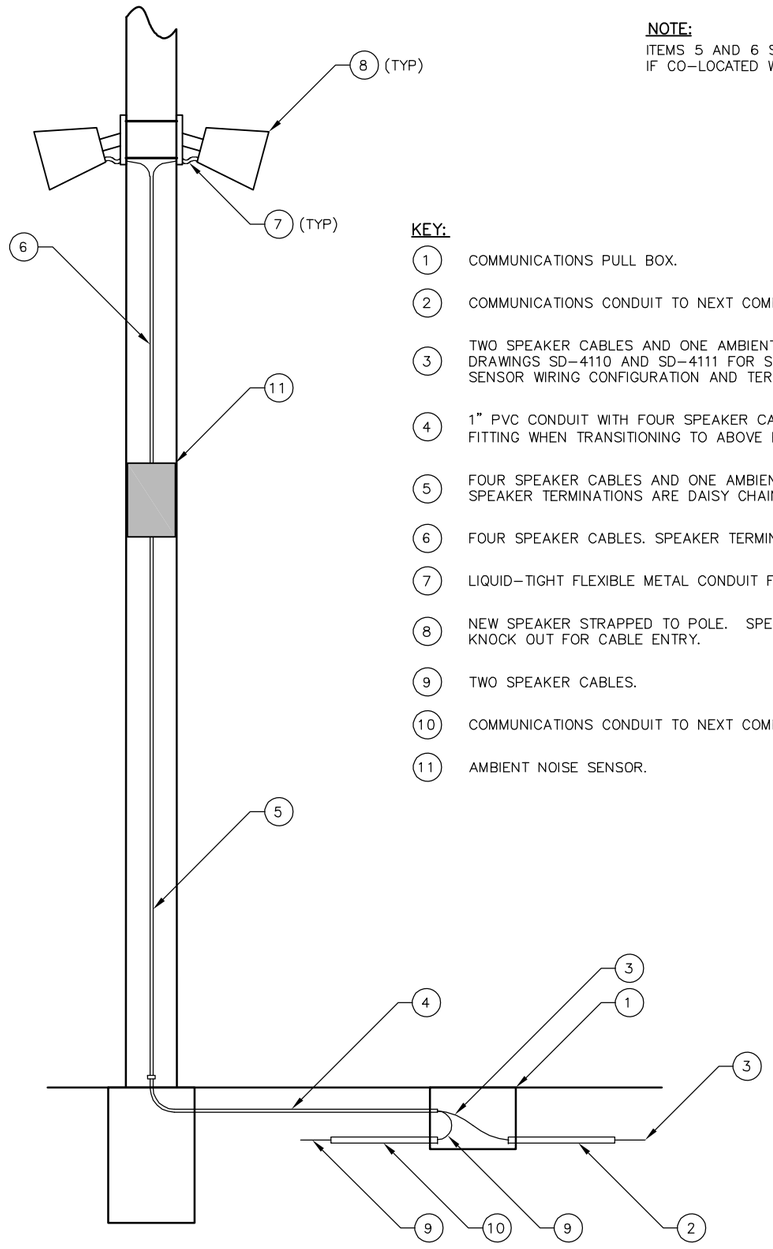
STANDARD DRAWING NO.: SD-4201



KEY:

1. COMMUNICATIONS PULL BOX.
2. COMMUNICATIONS CONDUIT TO NEXT COMMUNICATIONS PULL BOX OR CER.
3. TWO SPEAKER CABLES AND ONE AMBIENT NOISE SENSOR CABLE. SEE DRAWINGS SD-4110 AND SD-4111 FOR SPEAKER WIRING CONFIGURATION AND TERMINATIONS.
4. 1" PVC CONDUIT WITH FOUR SPEAKER CABLES AND ONE AMBIENT NOISE SENSOR CABLE. ATTACH CONDUIT TO POLE WITH STAINLESS STEEL CONDUIT FASTENERS.
5. NEW 1" GRS CONDUIT WITH FOUR SPEAKER CABLES AND ONE AMBIENT NOISE SENSOR CABLE. ATTACH CONDUIT TO POLE WITH STAINLESS STEEL CONDUIT FASTENERS.
6. NEW 1" GRS CONDUIT WITH FOUR SPEAKER CABLES. ATTACH CONDUIT TO POLE WITH STAINLESS STEEL CONDUIT FASTENERS.
7. STAINLESS STEEL JUNCTION BOX ATTACHED TO POLE.
8. LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR ROUTING SPEAKER CABLES.
9. NEW SPEAKER STRAPPED TO POLE. SPEAKER BASE OR CAP SHALL HAVE KNOCK OUT FOR CABLE ENTRY.
10. TWO SPEAKER CABLES.
11. COMMUNICATIONS CONDUIT TO NEXT COMMUNICATIONS PULL BOX.
12. AMBIENT NOISE SENSOR.

EXISTING POLE



NOTE:
ITEMS 5 AND 6 SHALL BE INSTALLED IN LFMC CONDUIT IF CO-LOCATED WITH A LIGHT POLE.

KEY:

1. COMMUNICATIONS PULL BOX.
2. COMMUNICATIONS CONDUIT TO NEXT COMMUNICATIONS PULL BOX OR CER.
3. TWO SPEAKER CABLES AND ONE AMBIENT NOISE SENSOR CABLE. SEE DRAWINGS SD-4110 AND SD-4111 FOR SPEAKER AND AMBIENT NOISE SENSOR WIRING CONFIGURATION AND TERMINATIONS.
4. 1" PVC CONDUIT WITH FOUR SPEAKER CABLES. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO ABOVE BASE. STUB UP 2" ABOVE BASE.
5. FOUR SPEAKER CABLES AND ONE AMBIENT NOISE SENSOR CABLE. SPEAKER TERMINATIONS ARE DAISY CHAINED.
6. FOUR SPEAKER CABLES. SPEAKER TERMINATIONS ARE DAISY CHAINED.
7. LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR ROUTING SPEAKER CABLES.
8. NEW SPEAKER STRAPPED TO POLE. SPEAKER BASE OR CAP SHALL HAVE KNOCK OUT FOR CABLE ENTRY.
9. TWO SPEAKER CABLES.
10. COMMUNICATIONS CONDUIT TO NEXT COMMUNICATIONS PULL BOX.
11. AMBIENT NOISE SENSOR.

NEW POLE

PAS SUBSYSTEM AND EQUIPMENT DETAILS

ELEVATION

SCALE: NTS

REV	DATE	BY	CHK	APP	DESCRIPTION
					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

Bin Zhang

DEPUTY DIRECTOR, ENGINEERING

Caltrain

1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS

STATION COMMUNICATIONS
PASSENGERS INFO SYSTEM
PAS SUBSYSTEM
AND EQUIPMENT DETAILS

CADD FILE NAME: SD-4210

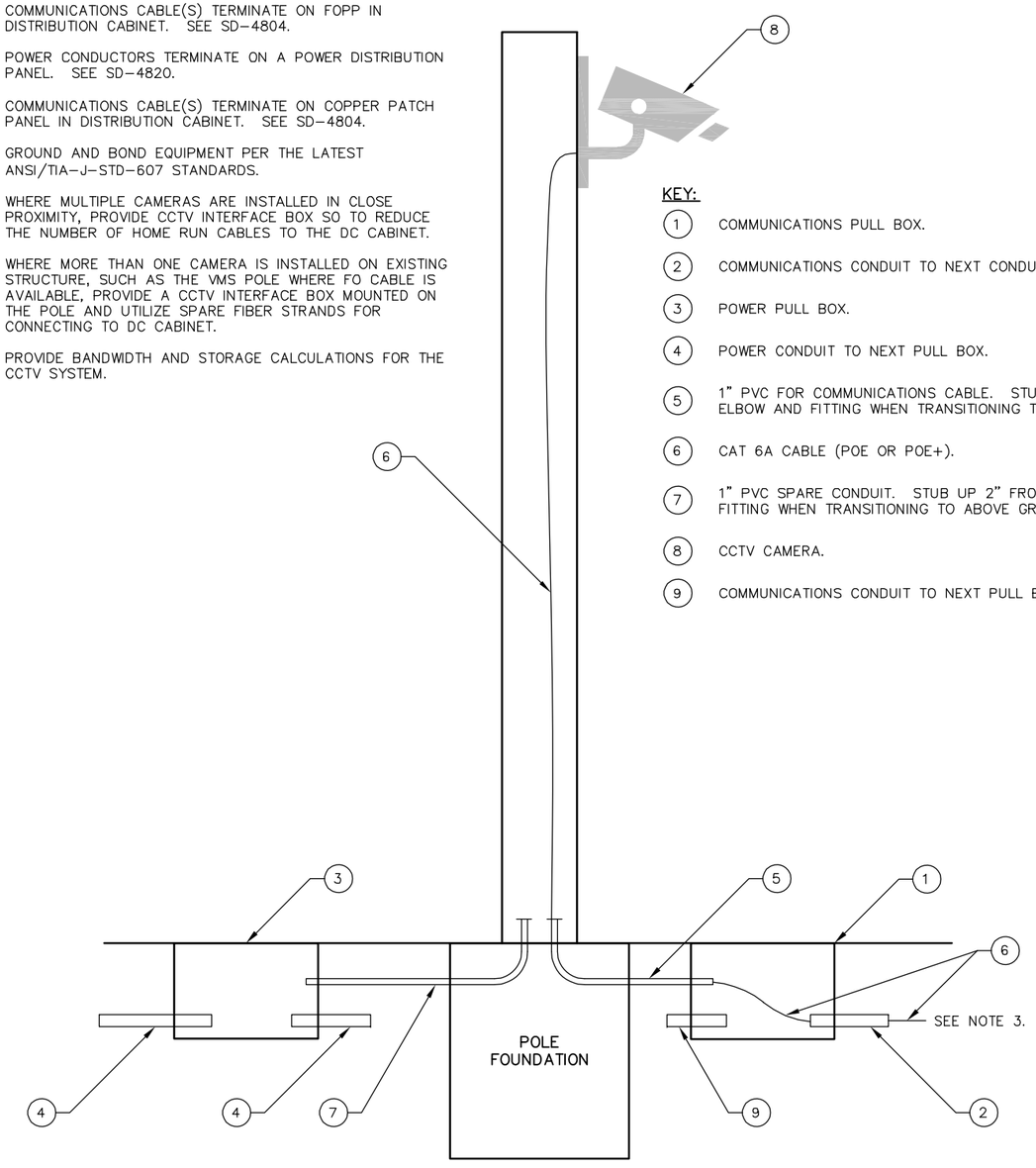
REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4210

NOTES:

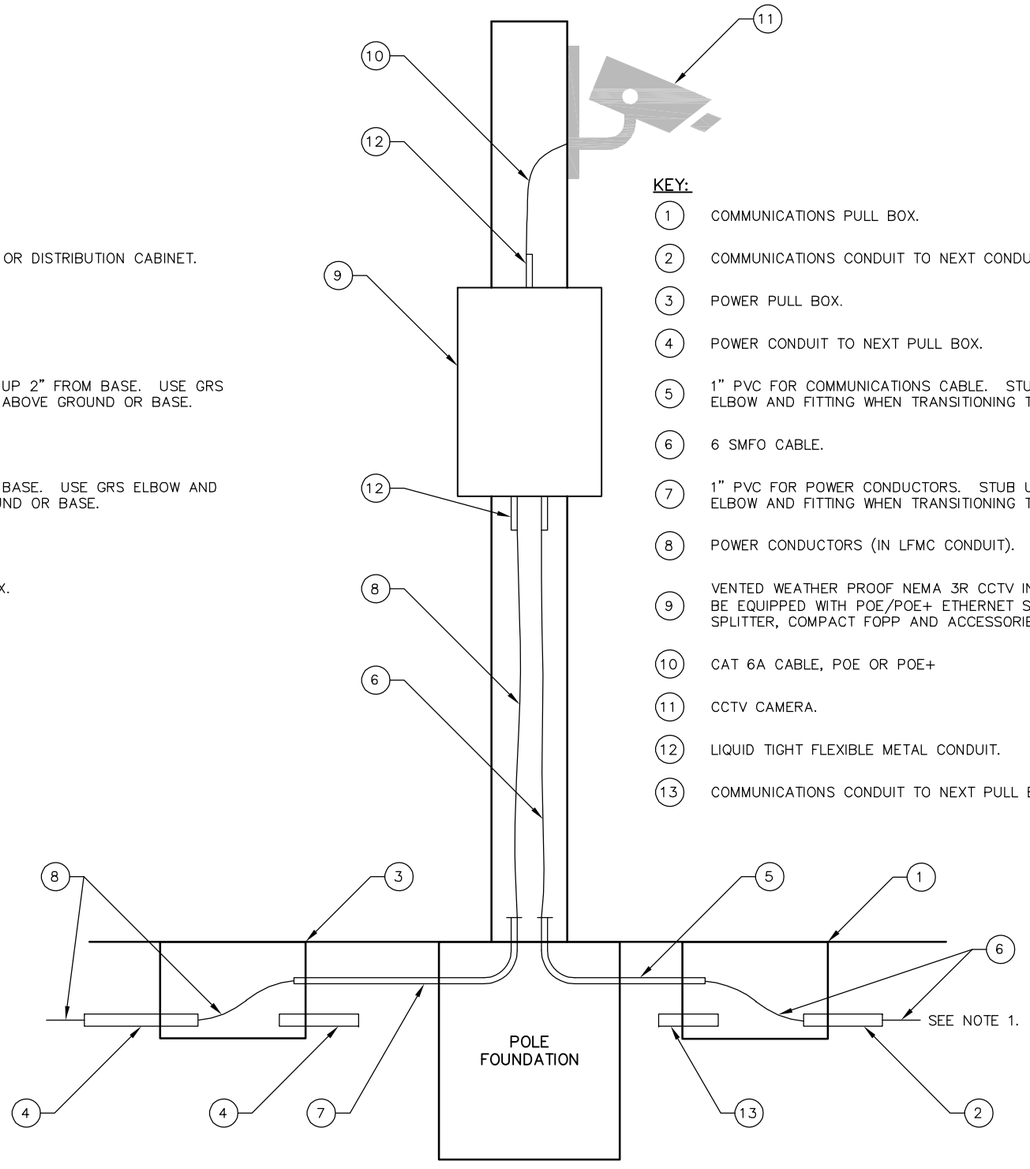
1. COMMUNICATIONS CABLE(S) TERMINATE ON FOPP IN DISTRIBUTION CABINET. SEE SD-4804.
2. POWER CONDUCTORS TERMINATE ON A POWER DISTRIBUTION PANEL. SEE SD-4820.
3. COMMUNICATIONS CABLE(S) TERMINATE ON COPPER PATCH PANEL IN DISTRIBUTION CABINET. SEE SD-4804.
4. GROUND AND BOND EQUIPMENT PER THE LATEST ANSI/TIA-J-STD-607 STANDARDS.
5. WHERE MULTIPLE CAMERAS ARE INSTALLED IN CLOSE PROXIMITY, PROVIDE CCTV INTERFACE BOX SO TO REDUCE THE NUMBER OF HOME RUN CABLES TO THE DC CABINET.
6. WHERE MORE THAN ONE CAMERA IS INSTALLED ON EXISTING STRUCTURE, SUCH AS THE VMS POLE WHERE FO CABLE IS AVAILABLE, PROVIDE A CCTV INTERFACE BOX MOUNTED ON THE POLE AND UTILIZE SPARE FIBER STRANDS FOR CONNECTING TO DC CABINET.
7. PROVIDE BANDWIDTH AND STORAGE CALCULATIONS FOR THE CCTV SYSTEM.



KEY:

1. COMMUNICATIONS PULL BOX.
2. COMMUNICATIONS CONDUIT TO NEXT CONDUIT OR DISTRIBUTION CABINET.
3. POWER PULL BOX.
4. POWER CONDUIT TO NEXT PULL BOX.
5. 1" PVC FOR COMMUNICATIONS CABLE. STUB UP 2" FROM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO ABOVE GROUND OR BASE.
6. CAT 6A CABLE (POE OR POE+).
7. 1" PVC SPARE CONDUIT. STUB UP 2" FROM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO ABOVE GROUND OR BASE.
8. CCTV CAMERA.
9. COMMUNICATIONS CONDUIT TO NEXT PULL BOX.

FOR CAMERA LOCATED LESS THAN 300 FEET FROM DISTRIBUTION CABINET



KEY:

1. COMMUNICATIONS PULL BOX.
2. COMMUNICATIONS CONDUIT TO NEXT CONDUIT OR DISTRIBUTION CABINET.
3. POWER PULL BOX.
4. POWER CONDUIT TO NEXT PULL BOX.
5. 1" PVC FOR COMMUNICATIONS CABLE. STUB UP 2" FROM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO ABOVE GROUND OR BASE.
6. 6 SMFO CABLE.
7. 1" PVC FOR POWER CONDUCTORS. STUB UP 2" FROM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO ABOVE GROUND OR BASE.
8. POWER CONDUCTORS (IN LFMC CONDUIT).
9. VENTED WEATHER PROOF NEMA 3R CCTV INTERFACE CABINET. CABINET TO BE EQUIPPED WITH POE/POE+ ETHERNET SWITCH, POWER SUPPLY, POE SPLITTER, COMPACT FOPP AND ACCESSORIES AS REQUIRED BY DESIGN.
10. CAT 6A CABLE, POE OR POE+
11. CCTV CAMERA.
12. LIQUID TIGHT FLEXIBLE METAL CONDUIT.
13. COMMUNICATIONS CONDUIT TO NEXT PULL BOX.

FOR CAMERA LOCATED MORE THAN 300 FEET FROM DISTRIBUTION CABINET

CCTV SUBSYSTEM AND EQUIPMENT DETAILS

ELEVATION

SCALE: NTS

REV	DATE	BY	CHK	APP	DESCRIPTION
					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

Bin Zhang

DEPUTY DIRECTOR, ENGINEERING

Caltrain

1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS

STATION COMMUNICATIONS
SECURITY SYSTEM
CCTV SUBSYSTEM
AND EQUIPMENT DETAILS

CADD FILE NAME: SD-4301

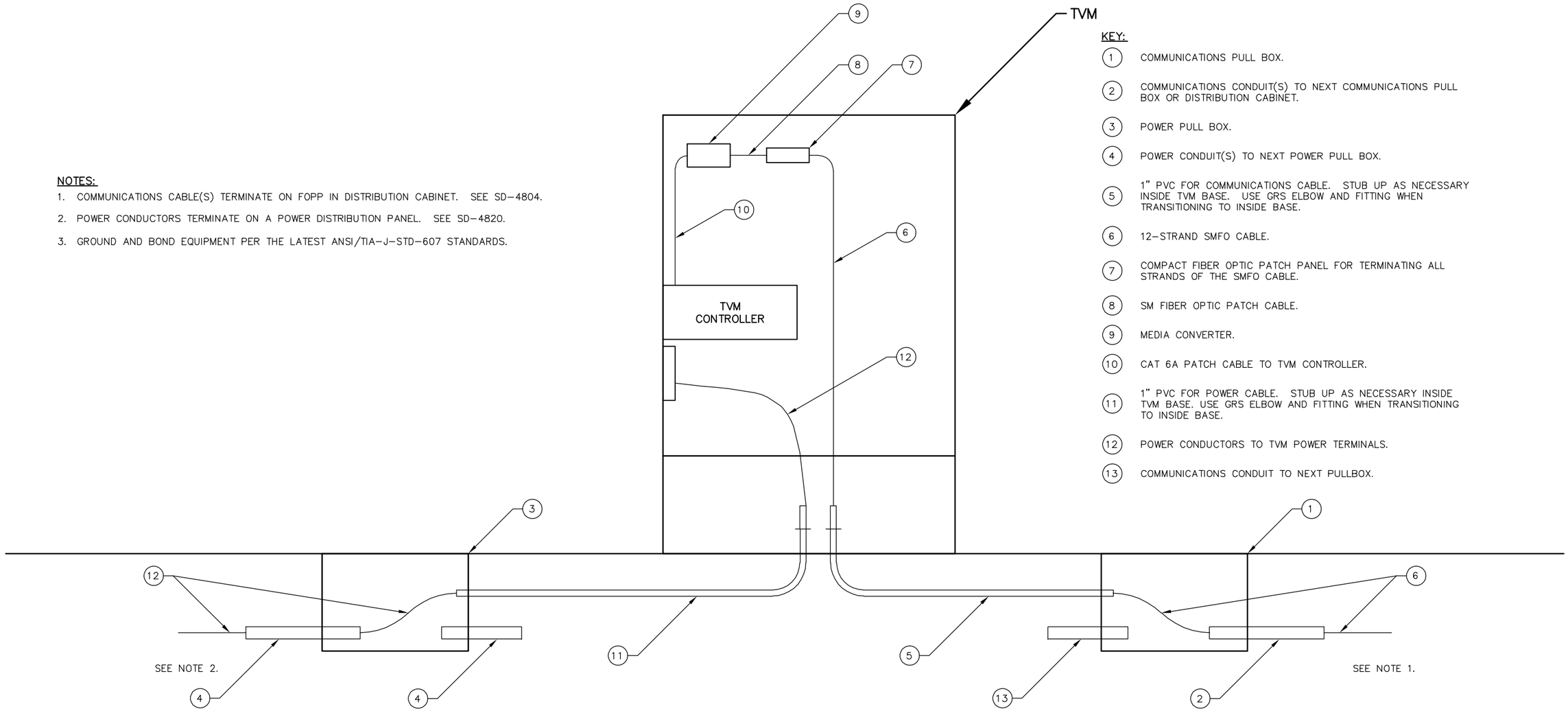
REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4301

NOTES:

1. COMMUNICATIONS CABLE(S) TERMINATE ON FOPP IN DISTRIBUTION CABINET. SEE SD-4804.
2. POWER CONDUCTORS TERMINATE ON A POWER DISTRIBUTION PANEL. SEE SD-4820.
3. GROUND AND BOND EQUIPMENT PER THE LATEST ANSI/TIA-J-STD-607 STANDARDS.



KEY:

1. COMMUNICATIONS PULL BOX.
2. COMMUNICATIONS CONDUIT(S) TO NEXT COMMUNICATIONS PULL BOX OR DISTRIBUTION CABINET.
3. POWER PULL BOX.
4. POWER CONDUIT(S) TO NEXT POWER PULL BOX.
5. 1" PVC FOR COMMUNICATIONS CABLE. STUB UP AS NECESSARY INSIDE TVM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO INSIDE BASE.
6. 12-STRAND SMFO CABLE.
7. COMPACT FIBER OPTIC PATCH PANEL FOR TERMINATING ALL STRANDS OF THE SMFO CABLE.
8. SM FIBER OPTIC PATCH CABLE.
9. MEDIA CONVERTER.
10. CAT 6A PATCH CABLE TO TVM CONTROLLER.
11. 1" PVC FOR POWER CABLE. STUB UP AS NECESSARY INSIDE TVM BASE. USE GRS ELBOW AND FITTING WHEN TRANSITIONING TO INSIDE BASE.
12. POWER CONDUCTORS TO TVM POWER TERMINALS.
13. COMMUNICATIONS CONDUIT TO NEXT PULLBOX.

TVM SUBSYSTEM AND EQUIPMENT DETAILS

ELEVATION

SCALE: NTS

REV	DATE	BY	CHK	APP	DESCRIPTION
					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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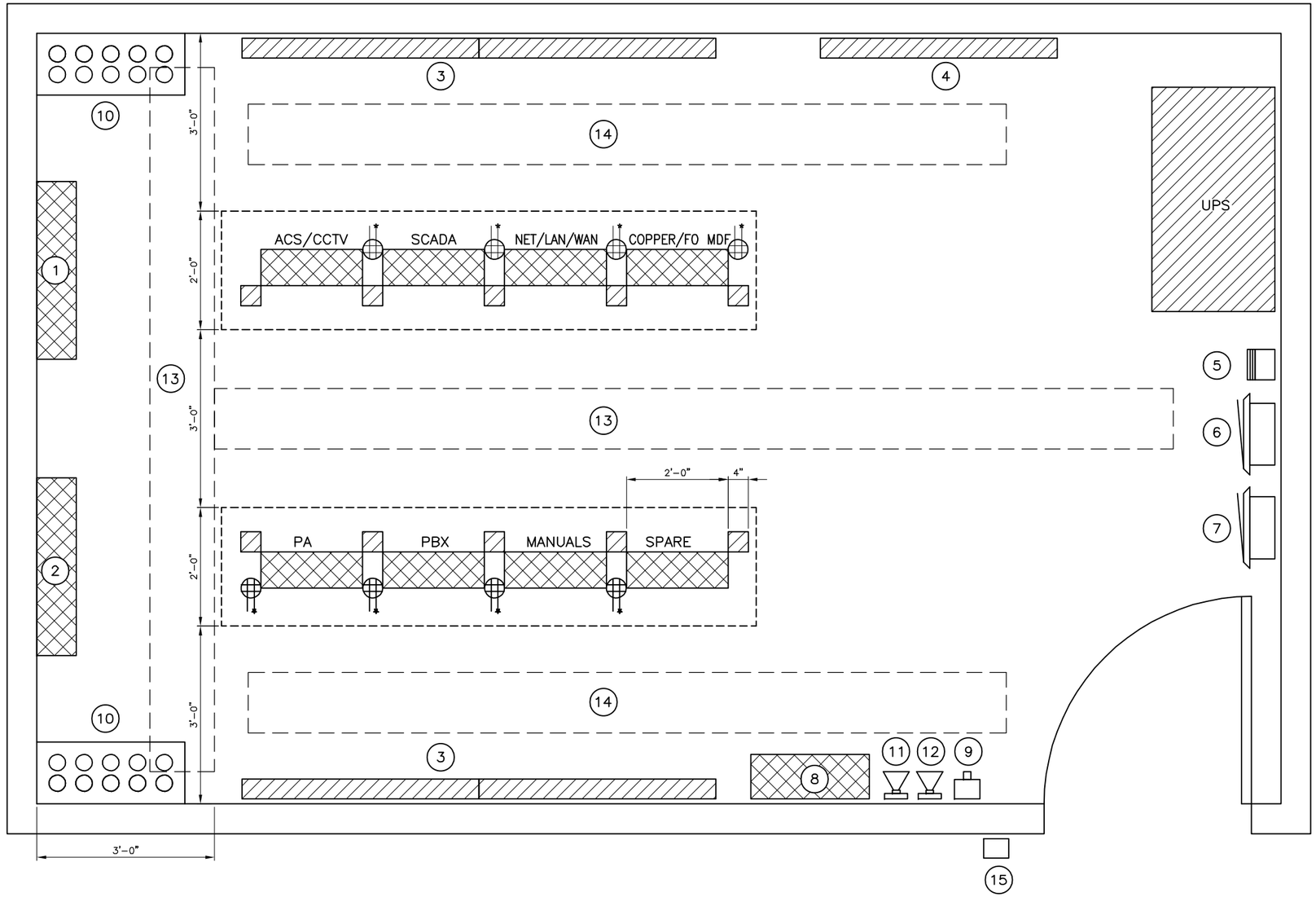
STANDARD DRAWINGS

STATION COMMUNICATIONS
FARE COLLECTION SYSTEM
TVM SUBSYSTEM
AND EQUIPMENT DETAILS

CADD FILE NAME:	SD-4401
REV:	EDITION: FOURTH
STATION COMMUNICATIONS	
STANDARD DRAWING NO.:	SD-4401



KEY:

1. ACCESS CONTROL DISTRIBUTION PANEL
2. PA DISTRIBUTION PANEL
3. MISCELLANEOUS INTERMEDIARY DISTRIBUTION PANEL(S)
4. TELCO PREMISE EQUIPMENT
5. UPS MAIN DISCONNECT
6. UPS BREAKER PANEL
7. NON-ESSENTIAL BREAKER PANEL
8. FIRE ALARM CONTROL PANEL
9. LIGHT SWITCH
10. DUCTBANK CONDUIT ENTRANCE (SEE NOTE 1)
11. OUTSIDE PHONE LINE
12. PBX PHONE (MAINTENANCE PHONE)
13. OVERHEAD CABLE TRAY
14. CEILING LED LIGHT FIXTURE
15. CARD BASED DOOR ACCESS SYSTEM

NOTE:

USE PROPER FIRE STOP, GROUNDING AND SURGE/LIGHTNING PROTECTION EQUIPMENT FOR INCOMING POWER AND COMMUNICATIONS LINES

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REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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San Carlos, CA 94070

STANDARD DRAWINGS

STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS
COMMUNICATIONS
EQUIPMENT ROOM (CER)
TYPICAL EQUIPMENT LAYOUT

CADD FILE NAME: SD-4801

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4801

NOT USED

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					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

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STANDARD DRAWINGS

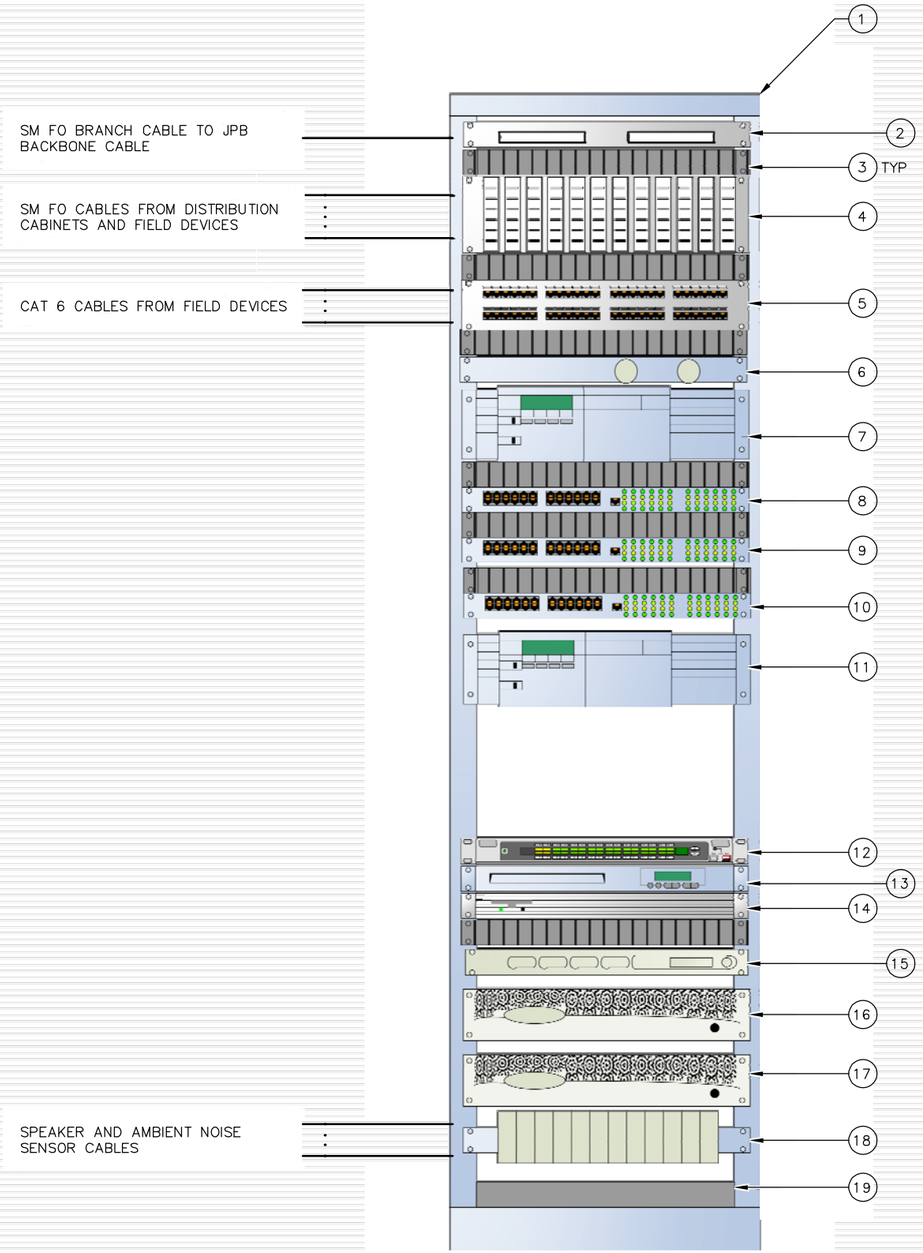
STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS

CADD FILE NAME: SD-4802

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4802



NOTES:

1. EQUIPMENT CABINET LOCATED IN COMMUNICATIONS EQUIPMENT ROOM (CER).
2. INSTALL TWO 120 VAC DUPLEX RECEPTACLES, ONE L5-30 FOR UPS ESSENTIAL POWER AND THE OTHER L5-15 FOR NONESSENTIAL POWER. RECEPTACLES ARE NOT SHOWN FOR CLARITY.
3. CONNECT VERTICAL AC STRIP TO L5-30A, 120VAC UPS CIRCUIT. STRIP INCLUDES (10) NEMA5-20P RECEPTACLES.

KEY:

1. 19" EQUIPMENT RACK.
2. FIBER DISTRIBUTION PANEL (FOR TERMINATING STATION DROP CABLE).
3. WIRE MANAGEMENT.
4. FIBER DISTRIBUTION PANEL (FOR STATION DEVICES).
5. CAT 6A PATCH PANEL WITH SURGE PROTECTION.
6. PAS MICROPHONES.
7. LAN ROUTER.
8. LAN ETHERNET SWITCH #1.
9. LAN ETHERNET SWITCH #2.
10. CLIPPER ETHERNET SWITCH WITH SFP UPLINK PORTS.
11. CLIPPER ROUTER.
12. KVM SWITCH.
13. CCTV SERVER.
14. CCTV STORAGE.
15. PAS DIGITAL SIGNAL PROCESSOR.
16. PAS AMPLIFIER #1.
17. PAS AMPLIFIER #2.
18. PAS SURGE PROTECTION DEVICE.
19. RACK GROUND BUS BAR.

COMMUNICATIONS EQUIPMENT ROOM RACK, VERTICAL PROFILE

ELEVATION

SCALE: NTS

REV	DATE	BY	CHK	APP	DESCRIPTION
					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

STATION COMMUNICATIONS SUPPORTING SYSTEM AND OTHERS COMMUNICATIONS EQUIPMENT ROOM (CER) RACK VERTICAL PROFILE

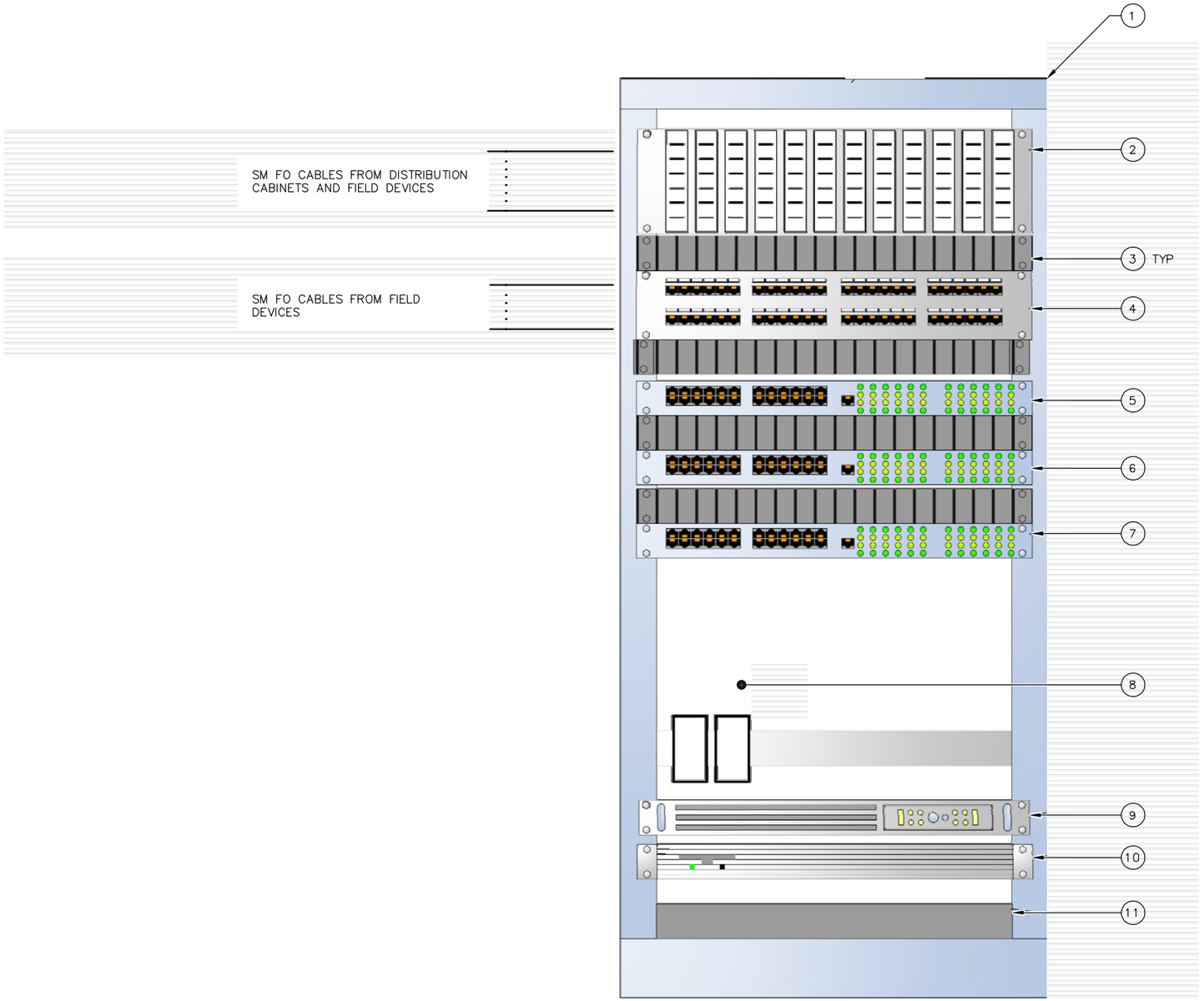
CADD FILE NAME: SD-4803

REV:

EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4803



NOTES:

1. OUTDOOR DISTRIBUTION CABINET SHALL HAVE SIDE MOUNTED AC UNIT. REFER TO DIVISION 17 SPECIFICATIONS FOR STANDARDS.
2. INSTALL TWO 120 VAC DUPLEX RECEPTACLES. ONE L5-30 FOR UPS ESSENTIAL POWER AND THE OTHER L5-15 FOR NONESSENTIAL POWER. RECEPTACLES ARE NOT SHOWN FOR CLARITY.
3. CONNECT VERTICAL AC STRIP TO L5-30A, 120VAC OPS CIRCUIT. STRIP INCLUDES (10) NEMA5-20P RECEPTACLES.

KEY:

1. 19" EQUIPMENT RACK.
2. FIBER DISTRIBUTION PANEL.
3. WIRE MANAGEMENT.
4. CAT 6A SURGE PROTECTION DEVICE.
5. LAN ETHERNET SWITCH #1.
6. LAN ETHERNET SWITCH #2.
7. CLIPPER ETHERNET SWITCH WITH SFP UPLINK PORTS.
8. CLIPPER POWER SUPPLY AND FUSES.
9. UPS.
10. UPS BATTERIES.
11. RACK GROUND BUS BAR.

DISTRIBUTION CABINET, VERTICAL PROFILE

ELEVATION

SCALE: NTS

REV	DATE	BY	CHK	APP	DESCRIPTION
					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

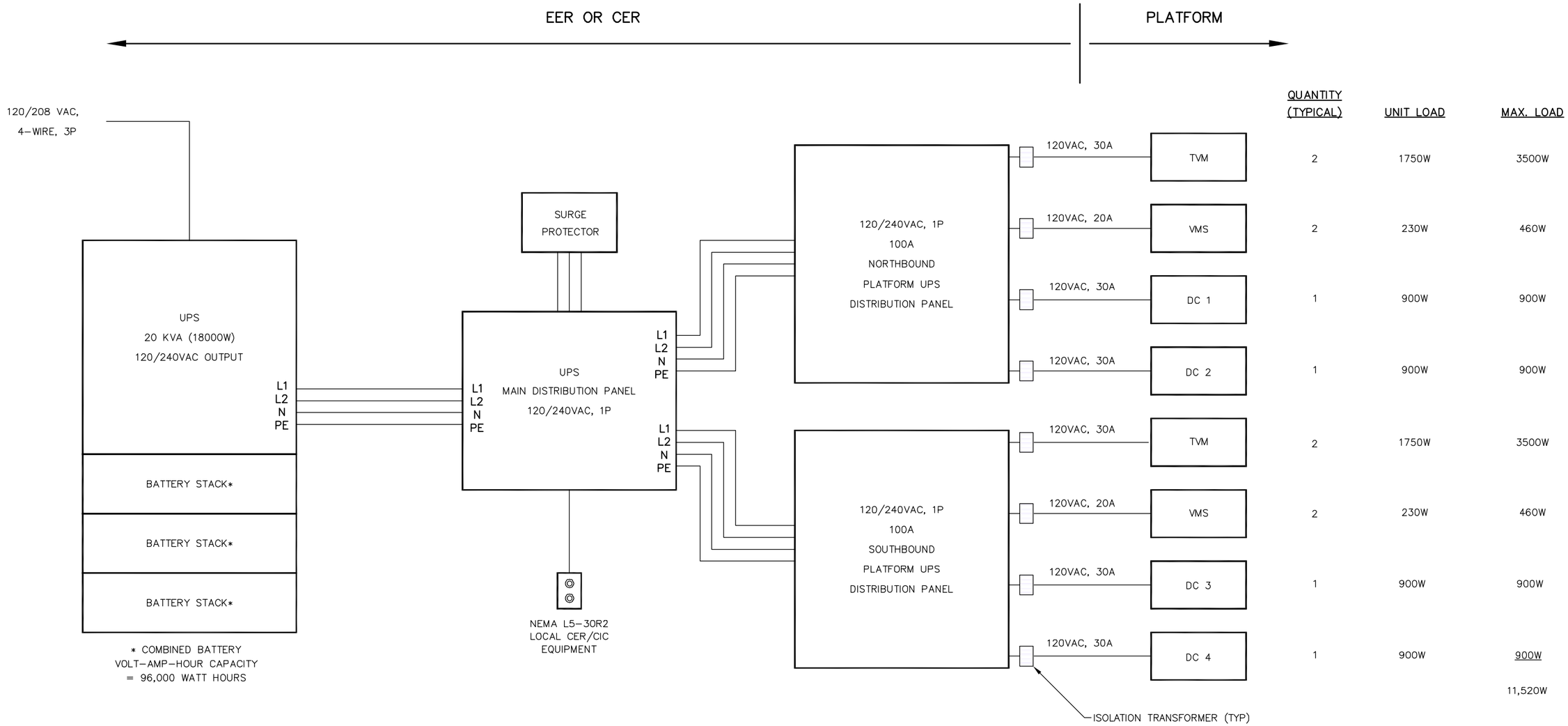
STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS
DISTRIBUTION CABINET
VERTICAL PROFILE

CADD FILE NAME: SD-4804

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4804



	QUANTITY (TYPICAL)	UNIT LOAD	MAX. LOAD
TVM	2	1750W	3500W
VMS	2	230W	460W
DC 1	1	900W	900W
DC 2	1	900W	900W
TVM	2	1750W	3500W
VMS	2	230W	460W
DC 3	1	900W	900W
DC 4	1	900W	900W
			11,520W

DC 4 DISTRIBUTION CABINET

NOTES:

1. UPS INCLUDES REAR MAINTENANCE BYPASS SWITCH.
2. UPS INCLUDES ETHERNET NID FOR REMOTE CONFIGURATION AND MONITORING.
3. ALL UPS RECEPTACLES ARE NEMA L5–30.
4. ADD BATTERY STACKS TO INCREASE RESERVE CAPACITY.
5. BATTERY RESERVE BASED ON 8 HOURS RUN TIME UNDER MAXIMUM 12,000W LOAD.
6. EACH DC WILL HOUSE A 120V AC / 24V DC POWER SUPPLY FOR POWERING ADJACENT CID DEVICES.
7. SHOWN POWER LOADS AND UPS/BATTERY RATING INDICATE TYPICAL STATION MANDATORY MINIMUM REQUIREMENTS. IF THE ACTUAL PROJECT'S STATION DEVICES REQUIRE LARGER POWER LOADS, INCREASE UPS EQUIPMENT RATINGS ACCORDING TO THE PROJECT'S NEEDS.

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PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

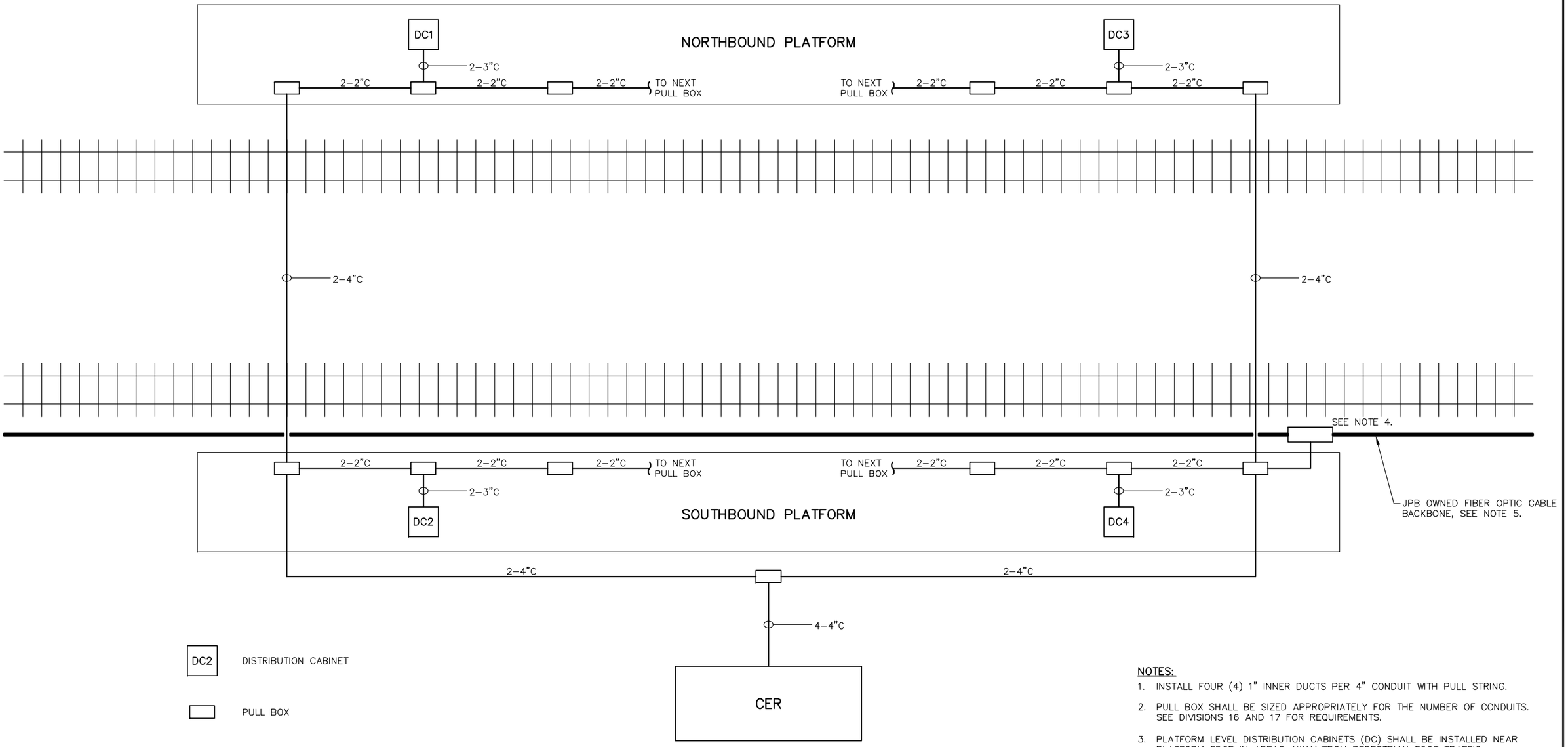
STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS
UPS AND DISTRIBUTION
SUBSYSTEM DETAILS

CADD FILE NAME: SD–4820

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD–4820



BACKBONE, CONDUIT LAYOUT

PLAN

SCALE: NTS

NOTES:

1. INSTALL FOUR (4) 1" INNER DUCTS PER 4" CONDUIT WITH PULL STRING.
2. PULL BOX SHALL BE SIZED APPROPRIATELY FOR THE NUMBER OF CONDUITS. SEE DIVISIONS 16 AND 17 FOR REQUIREMENTS.
3. PLATFORM LEVEL DISTRIBUTION CABINETS (DC) SHALL BE INSTALLED NEAR PLATFORM EDGE IN AREAS AWAY FROM PEDESTRIAN FOOT TRAFFIC.
4. FIBER OPTIC DROP CABLE FOR STATION COMMUNICATION WITH HEADQUARTERS/CCF/BCCF OVER JPB OWNED FIBER OPTIC PLANT.
5. THE DEPICTION OF PCJPB'S FIBER OPTIC CABLE BACKBONE IN THIS DRAWING IS SCHEMATIC AND PROVIDED FOR ILUSTRATIVE PURPOSES ONLY. ITS ACTUAL LOCATION WILL VARY FROM STATION TO STATION BUT WILL TYPICALLY BE ON EITHER SIDE OF A STATION NEAR PCJPB'S RIGHT-OF-WAY LINE.

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					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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DEPUTY DIRECTOR, ENGINEERING

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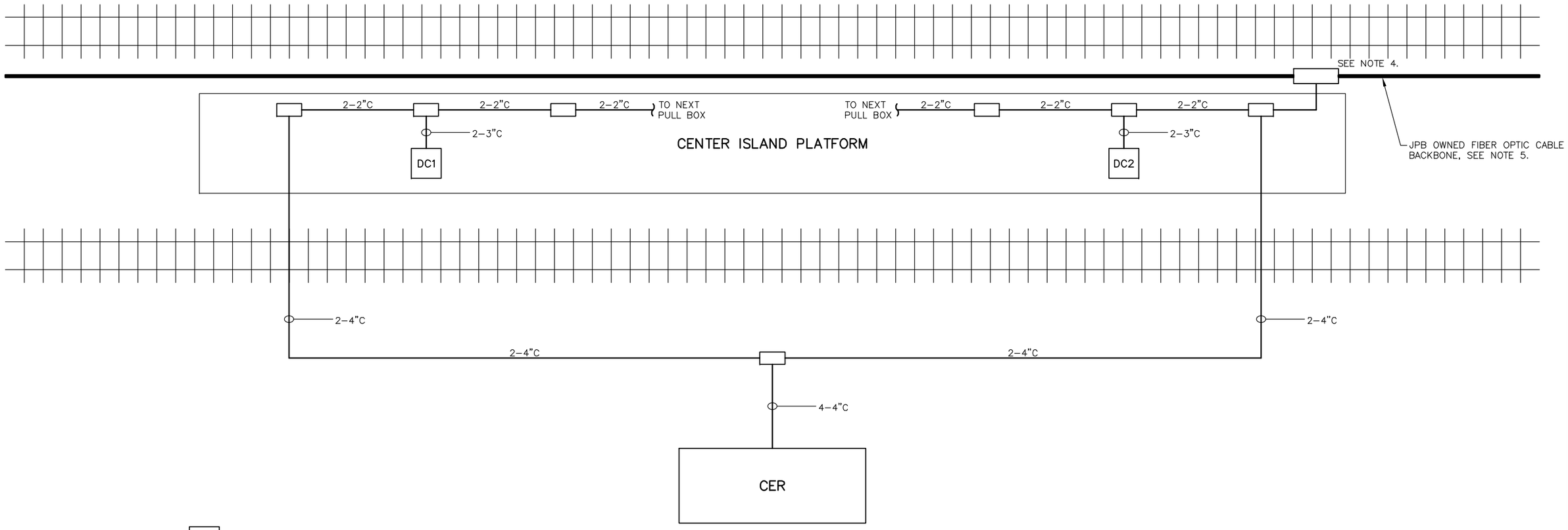
San Carlos, CA 94070

STANDARD DRAWINGS

STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS
MAIN CONDUIT PLAN
OUTBOARD PLATFORM

CADD FILE NAME:	SD-4830
REV:	EDITION: FOURTH
STATION COMMUNICATIONS	
STANDARD DRAWING NO.:	SD-4830



DC2 DISTRIBUTION CABINET

PULL BOX

FIBER OPTIC CABLE SPLICE CASE OR VAULT

BACKBONE, CONDUIT LAYOUT
PLAN
SCALE: NTS

NOTES:

1. INSTALL FOUR (4) 1" INNER DUCTS PER 4" CONDUIT WITH PULL STRING.
2. PULL BOX SHALL BE SIZED APPROPRIATELY FOR THE NUMBER OF CONDUITS. SEE DIVISIONS 16 AND 17 FOR REQUIREMENTS.
3. PLATFORM LEVEL DISTRIBUTION CABINETS (DC) SHALL BE INSTALLED ON PLATFORM CENTERLINE IN AREAS AWAY FROM PEDESTRIAN FOOT TRAFFIC.
4. FIBER OPTIC DROP CABLE FOR STATION COMMUNICATION WITH HEADQUARTERS/CCF/BCCF OVER JPB OWNED FIBER OPTIC PLANT.
5. THE DEPICTION OF PCJPB'S FIBER OPTIC CABLE BACKBONE IN THIS DRAWING IS SCHEMATIC AND PROVIDED FOR ILUSTRATIVE PURPOSES ONLY. ITS ACTUAL LOCATION WILL VARY FROM STATION TO STATION BUT WILL TYPICALLY BE ON EITHER SIDE OF A STATION NEAR PCJPB'S RIGHT-OF-WAY LINE.

REV	DATE	BY	CHK	APP	DESCRIPTION
					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

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San Carlos, CA 94070

STANDARD DRAWINGS

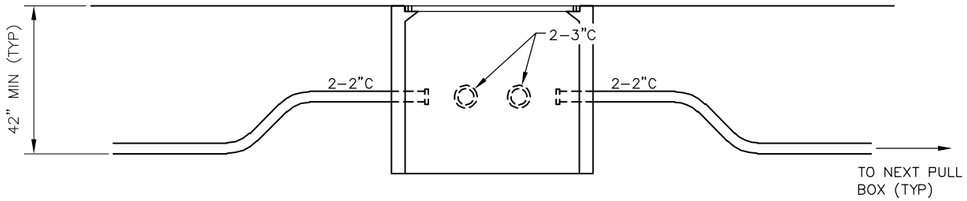
STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS
MAIN CONDUIT PLAN
CENTER ISLAND PLATFORM

CADD FILE NAME: SD-4831

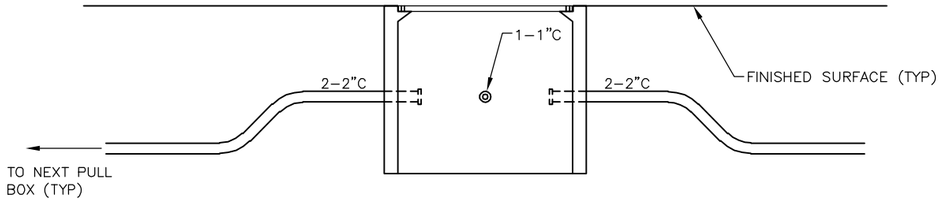
REV: | EDITION: FOURTH

STATION COMMUNICATIONS

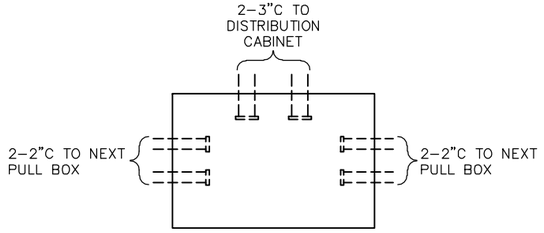
STANDARD DRAWING NO.: SD-4831



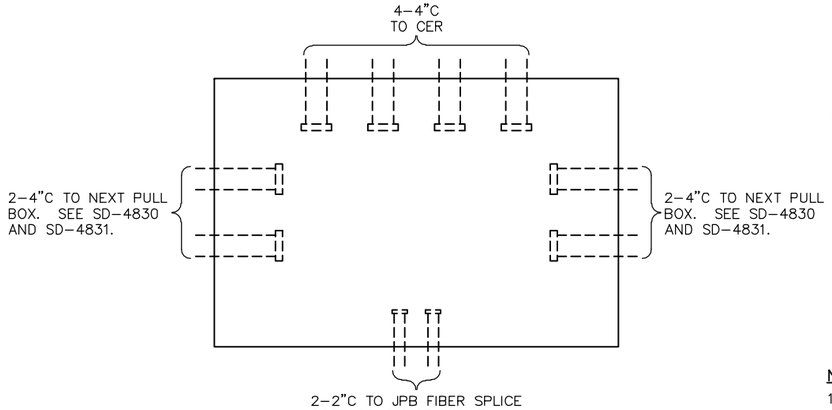
ELEVATION
SCALE: NTS



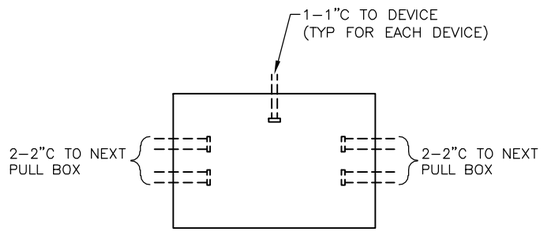
ELEVATION
SCALE: NTS



COMMUNICATIONS PULL BOX
WITH CONDUITS ASSIGNED TO DC
PLAN
SCALE: NTS



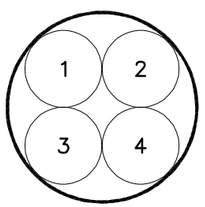
COMMUNICATIONS PULL BOX
WITH CONDUITS ASSIGNED TO CER
PLAN
SCALE: NTS



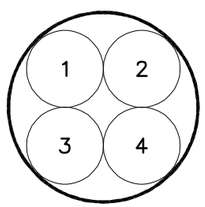
COMMUNICATIONS PULL BOX
WITH CONDUITS ASSIGNED
TO PLATFORM DEVICES
PLAN
SCALE: NTS

NOTES:

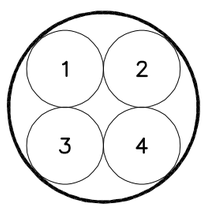
1. PLACE PULL-BOX LOCATIONS AT INTERVALS PER TIA/EIA 569 STANDARDS.
2. INNERDUCT USED FOR SINGLE-MODE FOC.
3. DISTRIBUTION CABINETS SHALL BE PROVIDED WITH TWO (2) 3"C FROM COMMUNICATIONS PULL BOX AND FOUR (4) 2"C FROM POWER PULL BOX. POWER PULL BOX NOT SHOWN.
4. ANY PORTION OF CONDUIT NOT PLACED AT FULL DEPTH SHALL BE INSTALLED IN STEEL CASING OR PROTECTED WITH CONCRETE SLURRY.



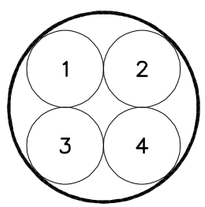
CONDUIT NO. 1
(#1) 1-24 STRAND SM FOC
(#2) 1-24 STRAND SM FOC (SPARE)
(#3) SPARE
(#4) SPARE



CONDUIT NO. 2
(#1) 1-24 STRAND SM FOC
(#2) 1-24 STRAND SM FOC (SPARE)
(#3) SPARE
(#4) SPARE



CONDUIT NO. 3
FUTURE OSP SPARES



CONDUIT NO. 4
FUTURE OSP SPARES

4" CONDUITS, EACH WITH FOUR 1" INNERDUCTS
SECTION
SCALE: NTS

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REV	DATE	BY	CHK	APP	DESCRIPTION

PENINSULA CORRIDOR JOINT POWERS BOARD

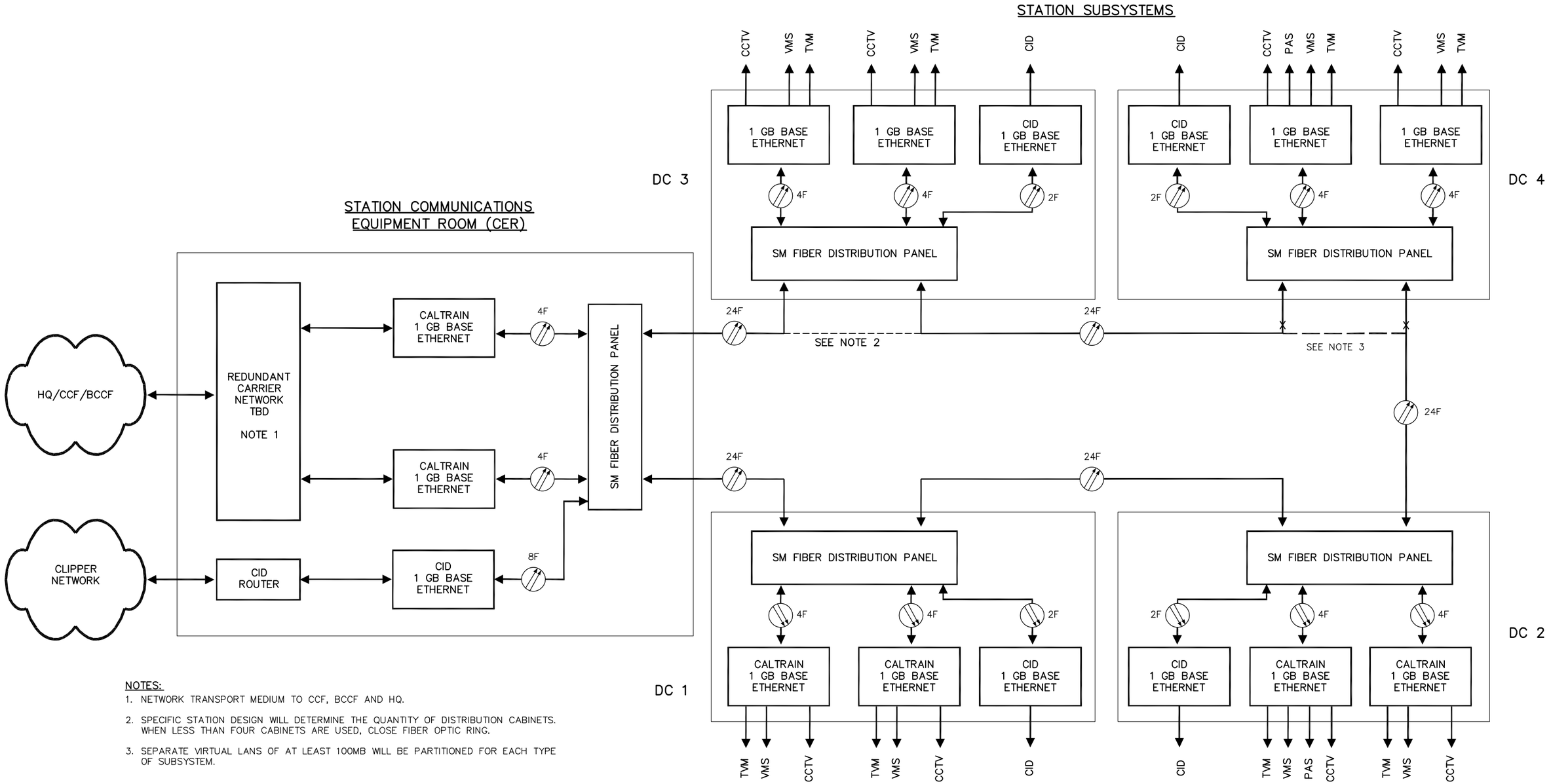
APPROVED BY:
Bin Zhang
DEPUTY DIRECTOR, ENGINEERING

Caltrain®
1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS

STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS
CONDUIT ASSIGNMENTS
SUBSYSTEM CABLE PLAN

CADD FILE NAME: SD-4832
REV:
EDITION: FOURTH
STATION COMMUNICATIONS
STANDARD DRAWING NO.: SD-4832



NOTES:

1. NETWORK TRANSPORT MEDIUM TO CCF, BCCF AND HQ.
2. SPECIFIC STATION DESIGN WILL DETERMINE THE QUANTITY OF DISTRIBUTION CABINETS. WHEN LESS THAN FOUR CABINETS ARE USED, CLOSE FIBER OPTIC RING.
3. SEPARATE VIRTUAL LANS OF AT LEAST 100MB WILL BE PARTITIONED FOR EACH TYPE OF SUBSYSTEM.

DC DISTRIBUTION CABINET

F NUMBER OF SINGLE-MODE OPTICAL FIBERS

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STANDARD DRAWINGS

STATION COMMUNICATIONS SUPPORTING SYSTEM AND OTHERS ETHERNET SUBSYSTEMS DISTRIBUTION BLOCK DIAGRAM

CADD FILE NAME: SD-4833

REV: | EDITION: FOURTH

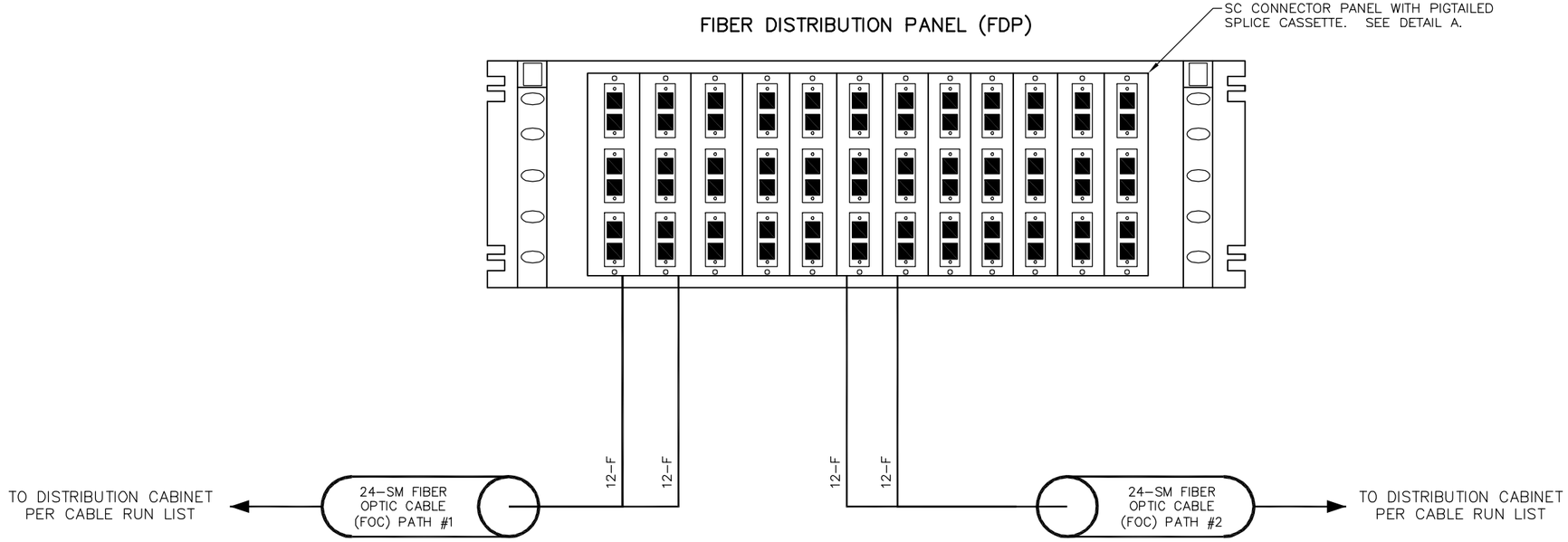
STATION COMMUNICATIONS

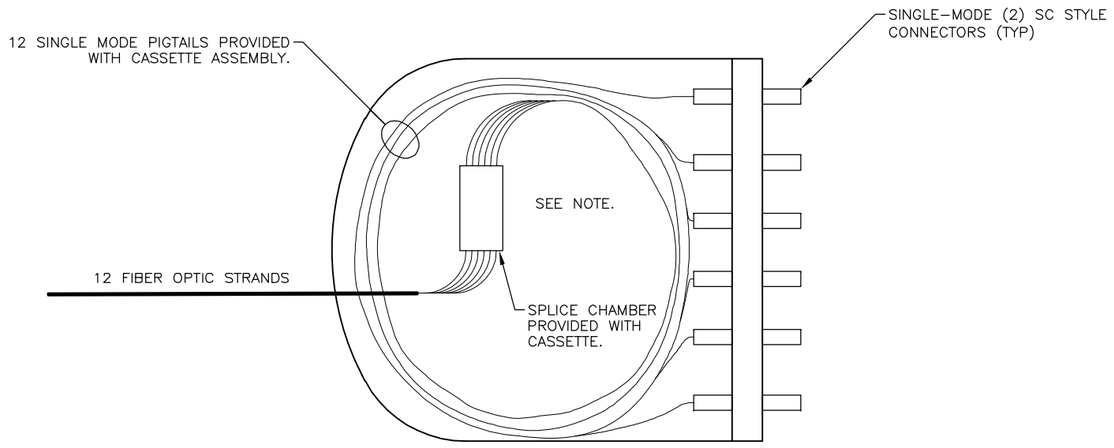
STANDARD DRAWING NO.: SD-4833

NOTES:

1. LABEL EACH FRONT PANEL FIBER PORT TO CORRELATE WITH ASSIGNED DISTRIBUTION FIBER CABLE AND STRAND.
2. MOUNT PANELS IN COMMUNICATIONS CABINETS OR RACKS (19" EIA MOUNT).
3. FDP SHALL ACCOMMODATE THE TERMINATION OF ALL STRANDS AND HAVE A SPARE CAPACITY OF 24 STRANDS.
4. FIBER PORTS WILL BE COLORED YELLOW FOR SINGLE-MODE FOC.

FIBER DISTRIBUTION PANEL (FDP)





NOTE:
FUSION SPLICE 12 FIBER OPTIC STRANDS TO CASSETTE PIGTAILS.

PIGTAILED SPLICE CASSETTE DETAIL

A – SCALE: NTS

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STANDARD DRAWINGS

STATION COMMUNICATIONS SUPPORTING SYSTEM AND OTHERS FIBER SPLICE AND TERMINATION PANELS EQUIPMENT AND WIRING DETAILS

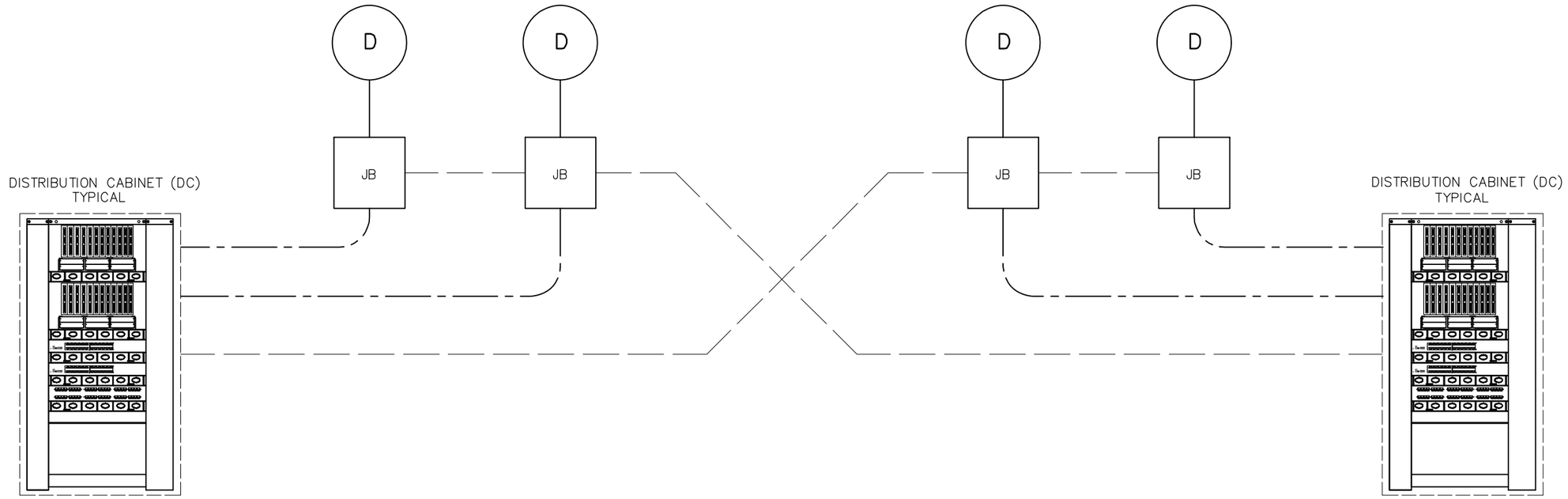
CADD FILE NAME: SD-4834

REV: | EDITION: FOURTH

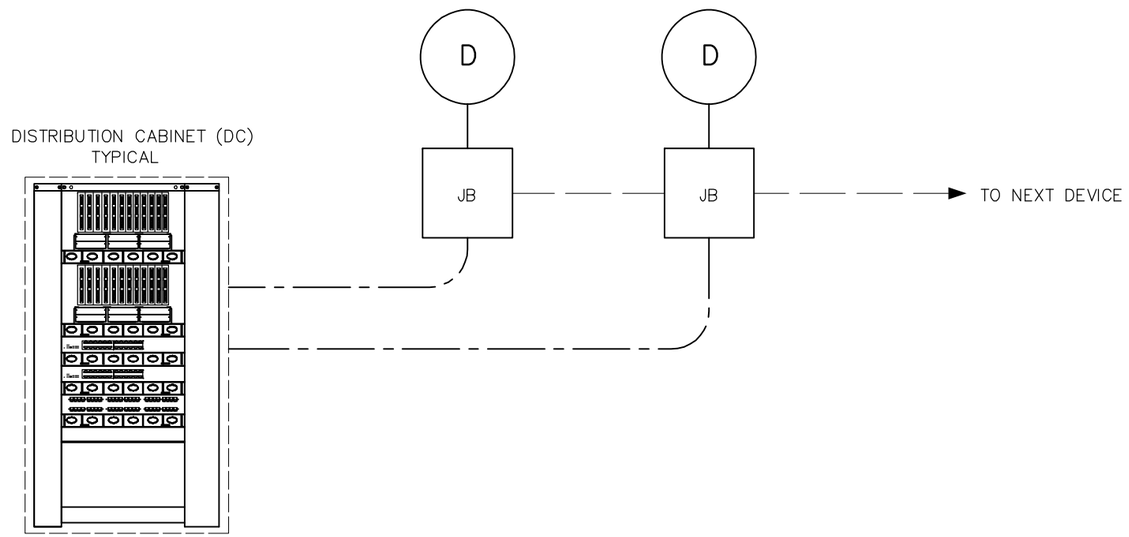
STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4834

STATION PLATFORM WITH DUAL DISTRIBUTION CABINETS



STATION PLATFORM WITH SINGLE DISTRIBUTION CABINETS



NOTES:

1. PLACE CONDUIT AND J–BOX LOCATIONS AT INTERVALS PER TIA/EIA 569 STANDARDS.
2. EMPTY 1" CONDUIT CREATES A DAISY–CHAIN PATHWAY BETWEEN DEVICES OF THE SAME SUBSYSTEM. REPEAT THIS SCHEME FOR EACH INDIVIDUAL SUBSYSTEM. THIS DIVERSE PATHWAY WILL ALLOW NETWORK REDUNDANCY FOR THOSE DEVICES WITH INTEGRATED NETWORK SWITCHING (FUTURE).
3. DEVICE QUANTITIES WILL VARY WITH STATION SIZE AND SUBSYSTEM TYPE.
4. REFER TO STATION CONDUIT RISER PLANS.
5. REFER TO SD–4201 FOR CMS TERMINATION. REFER TO SD–4210 FOR SPEAKERS TERMINATION. REFER TO SD–4301 FOR CCTV TERMINATION. REFER TO SD–4401 FOR TVM TERMINATION. REFER TO SD–4109 FOR CID.

1" GRS CONDUIT, FUTURE NETWORK DIVERSITY

1" GRS CONDUIT, WITH CABLE, HOME RUN FROM DC PER DEVICE

D — SUBSYSTEM DEVICE WITH JUNCTION BOX (TVM, VMS, CCTV)

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STANDARD DRAWINGS

STATION COMMUNICATIONS
SUPPORTING SYSTEM AND OTHERS
SUBSYSTEM DEVICE
CONDUIT SCHEME

CADD FILE NAME: SD–4835

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD–4835

NOTES:

1. PROVIDE SOLID STATE SURGE PROTECTOR AT 66–BLOCK WHEN CROSS–CONNECTING ALARMS TO ANOTHER EQUIPMENT OR SIGNAL HOUSE. PROVIDE GROUNDING PER DIVISION 17 SPECIFICATIONS.
2. ADDITIONAL ALARM POINTS CAN BE ADDED AS REQUIRED.
3. ALARM WIRING SHALL BE 1–PAIR, #22 AWG SOLID CONNECTOR.

CROSS–CONNECT TO ALARM NETWORK SYSTEM AS REQUIRED

25PR–ORANGE BINDER			66 BLOCK	EQUIPMENT SIDE TERMINATION							
WIRE COLOR	PR	PIN #		PIN #	WIRE COLOR	TYPE CIRCUIT	RACK	SHELF	CARD/ PANEL	PIN#/ JACK	REFER TO SHEET#
W B	1	1		1	W B	FOTMA ALARM	101				
B		2		2	B	FOTMA ALARM	101				
W O	2	3		3	W O	FOTMI ALARM	101				
O		4		4	O	FOTMI ALARM	101				
W G	3	5		5	W B	FOTINT ALARM	DOOR				
G		6		6	B	FOTINT ALRRM	DOOR				
W Br	4	7		7	W B	FOTHTMP ALARM	THERM				
Br		8		8	B	FOTHTMP ALARM	THERM				
W S	5	9		9	W B	FOTSD ALARM	SMOKE				
S		10		10	B	FOTSD ALARM	SMOKE				
R B	6	11		11	W B	FOTUPSF ALARM	DET				
B		12		12	B	FOTUPSF ALARM	DET				
R Or	7	13		13	W B	FOTPO ALARM	DET				
Or		14		14	B	FOTPO ALARM	DET				
R Gr	8	15		15	W B	FOTPT	FUTURE				
Gr		16		16	B	FOTPT	FUTURE				
R Br	9	17		17	W B						
Br		18		18	B						
R S	10	19		19							
S		20		20							
Bl B	11	21		21							
B		22		22							
Bl O	12	23		23							
O		24		24							
Bl G	13	25		25							
G		26		26							
Bl Br	14	27		27							
Br		28		28							
Bl S	15	29		29							
S		30		30							
Y Bl	16	31		31							
Bl		32		32							
Y O	17	33		33							
O		34		34							
Y G	18	35		35							
G		36		36							
Y Br	19	37		37							
Br		38		38							
Y S	20	39		39							
S		40		40							
V Bl	21	41		41							
Bl		42		42							
V O	22	43		43							
O		44		44							
V Gr	23	45		45							
Gr		46		46							
V Br	24	47		47							
Br		48		48							
V S	25	48		48							
S		50		50							

SEE NOTE 1

SEE NOTE 2

ALARM(N/O) COM FRONT DOOR

ALARM(N/O) COM REAR DOOR

HI/LOW TEMP ALARM

ALARM(N/O) COM

SMOKE OR FM200 ALARM

ALARM(N/O) COM

UPS FAIL ALARM

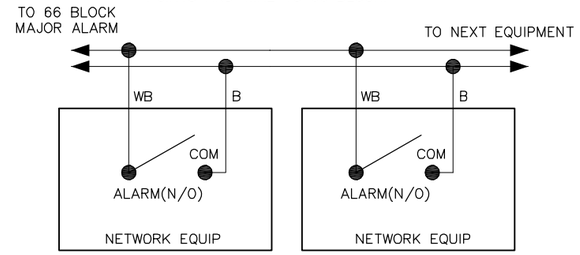
ALARM(N/O) COM

POWER FAIL ALARM

ALARM(N/O) COM

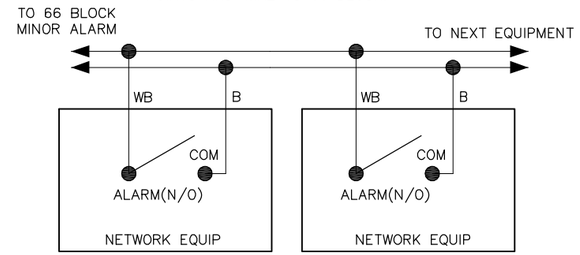
NOTE:

PARALLEL ALL EQUIPMENT MAJOR ALARM POINTS AND WIRE TO 66 BLOCK.



NOTE:

PARALLEL ALL EQUIPMENT MINOR ALARM POINTS AND WIRE TO 66 BLOCK.



WALL MOUNTED 66–TYPE BLOCK AT MAIN DISTRIBUTION FRAME (MDF)

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PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

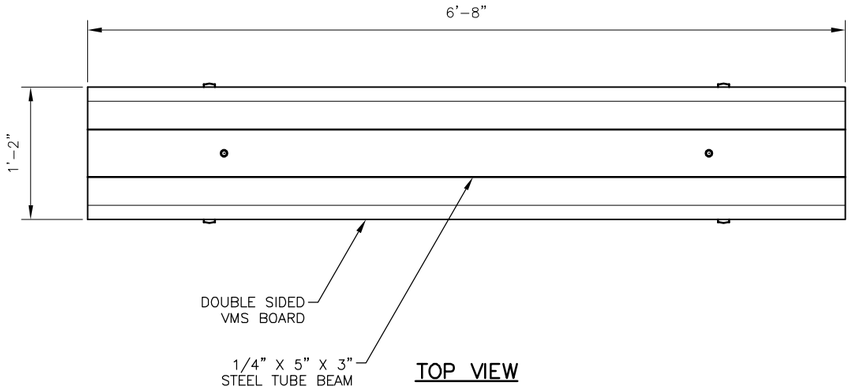
STATION COMMUNICATIONS SUPPORTING SYSTEM AND OTHERS EQUIPMENT AND SECURITY ALARMS DEMARCATION

CADD FILE NAME: SD–4850

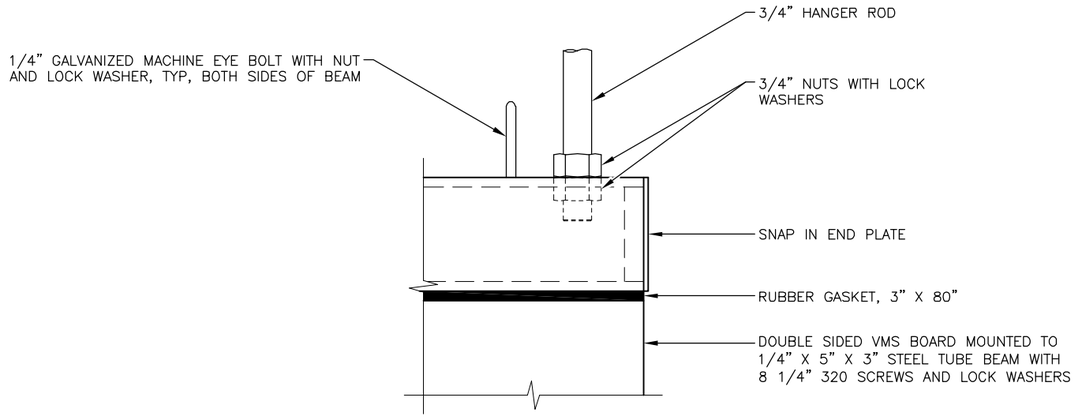
REV: | EDITION: FOURTH

STATION COMMUNICATIONS

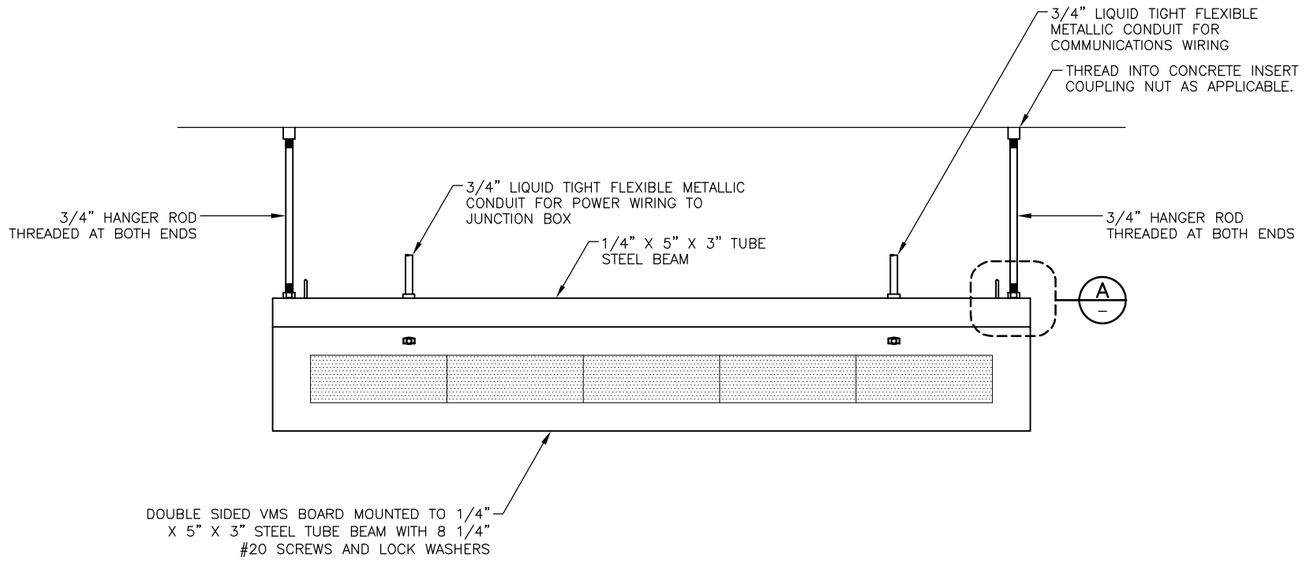
STANDARD DRAWING NO.: SD–4850



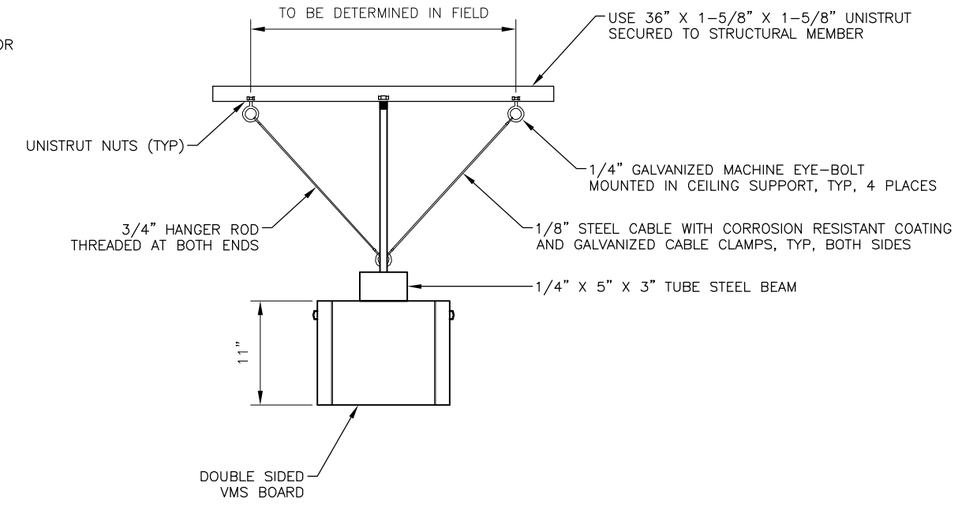
TOP VIEW



A – DETAIL
SCALE: NOT TO SCALE



FRONT VIEW



SIDE VIEW

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REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

STATION COMMUNICATIONS
COMMUNICATION EQUIPMENT
VARIABLE MESSAGE SIGN BOARD
CEILING MOUNT

CADD FILE NAME: SD-4901

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4901

NOT USED

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REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

STATION COMMUNICATIONS
COMMUNICATION EQUIPMENT

CADD FILE NAME: SD-4902

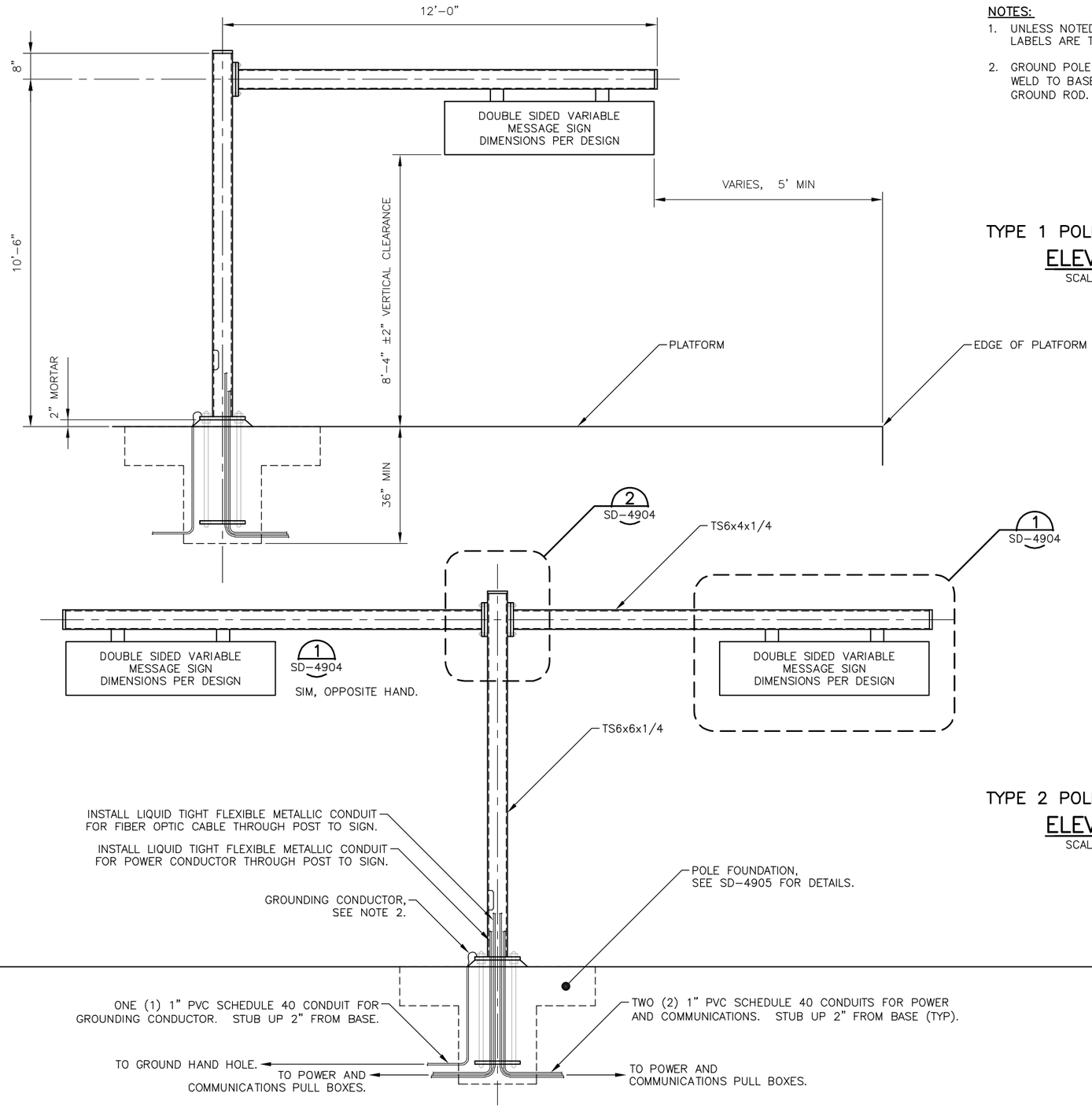
REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4902

NOTES:

1. UNLESS NOTED OTHERWISE, DIMENSIONS, DETAILS, NOTES AND LABELS ARE TYPICAL FOR TYPE 1 AND TYPE 2 POLE MOUNTS.
2. GROUND POLE WITH #4/0 AWG BARE COPPER. EXOTHERMIC WELD TO BASE AND TO 10' LONG X 3/4" COPPER CLAD STEEL GROUND ROD. COIL 3' OF GROUND WIRE IN HAND HOLE.



TYPE 1 POLE MOUNT, VMS
ELEVATION
SCALE: NTS

TYPE 2 POLE MOUNT, VMS
ELEVATION
SCALE: NTS

REV	DATE	BY	CHK	APP	DESCRIPTION
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REV	DATE	BY	CHK	APP	DESCRIPTION

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STANDARD DRAWINGS

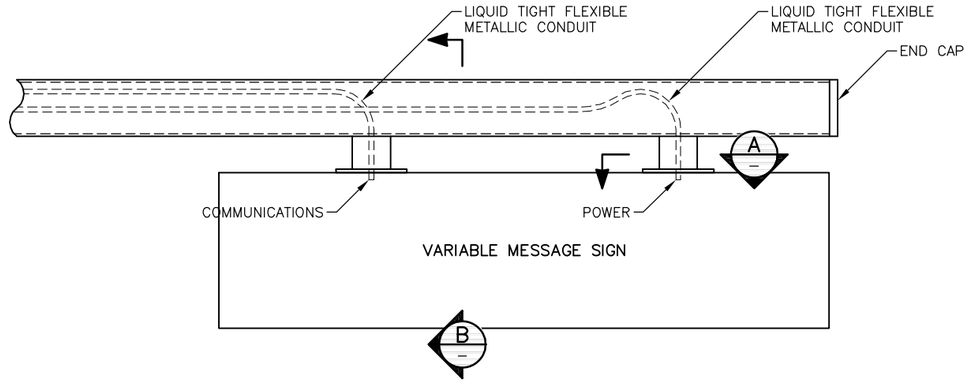
STATION COMMUNICATIONS
COMMUNICATION EQUIPMENT
VARIABLE MESSAGE SIGN BOARD
POLE MOUNT

CADD FILE NAME: SD-4903

REV: | EDITION: FOURTH

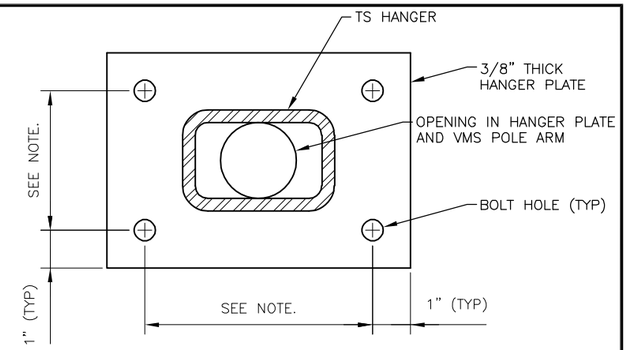
STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4903



VMS BOARD MOUNTING DETAIL

SD-4903 (1) SD-4904 DETAIL SCALE: NTS

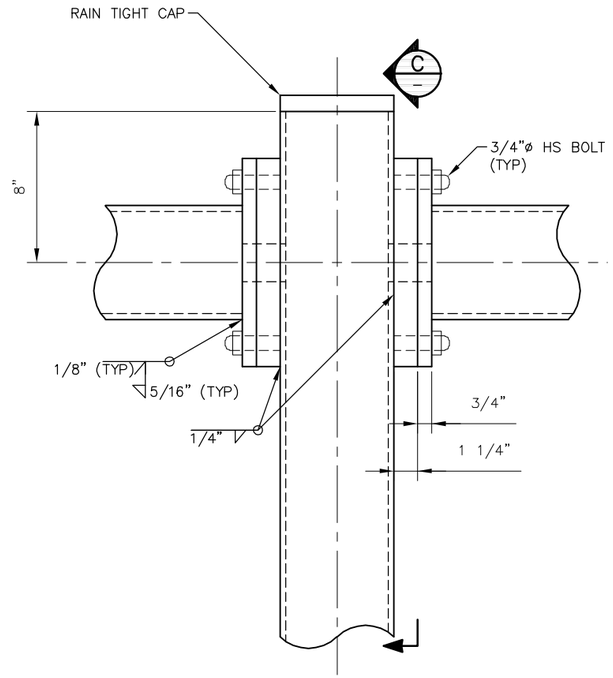


VMS HANGER

A – SECTION SCALE: NTS

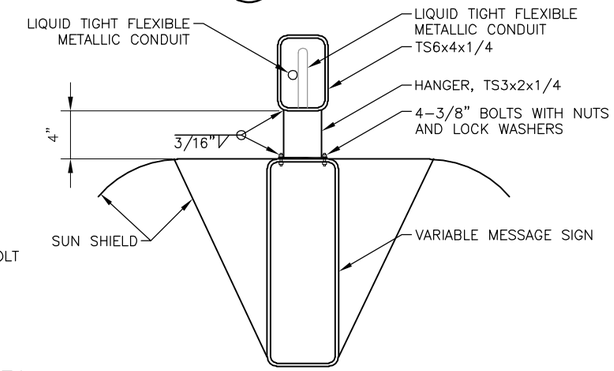
NOTES:

1. VERIFY BOLT CENTERS, BOLT DIAMETERS AND HANGER DIMENSIONS WITH VMS MANUFACTURER.
2. PROVIDE 1/16" THICK (MINIMUM) WATER RESISTANT NEOPRENE GASKET BETWEEN HANGER PLATE AND SIGN.



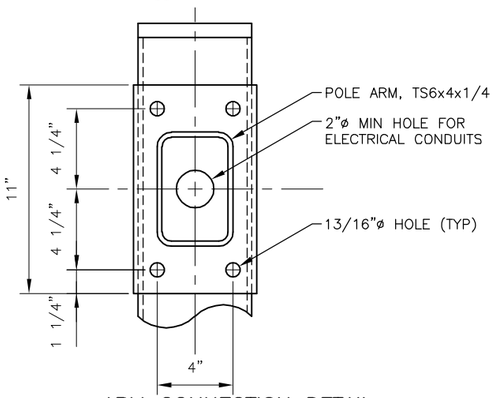
ARM CONNECTION DETAIL

SD-4903 (2) SD-4904 DETAIL SCALE: NTS



VMS BOARD

B – SECTION SCALE: NTS



ARM CONNECTION DETAIL

C – SECTION SCALE: NTS

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REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

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STANDARD DRAWINGS

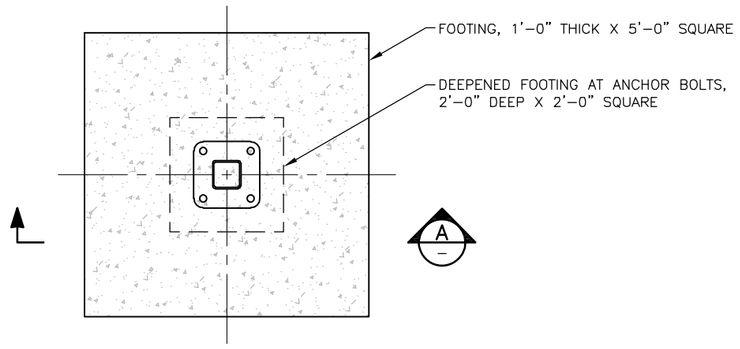
STATION COMMUNICATIONS
COMMUNICATION EQUIPMENT
VMS BOARD POLE MOUNTING DETAILS
SHEET 1 OF 2

CADD FILE NAME: SD-4904

REV: | EDITION: FOURTH

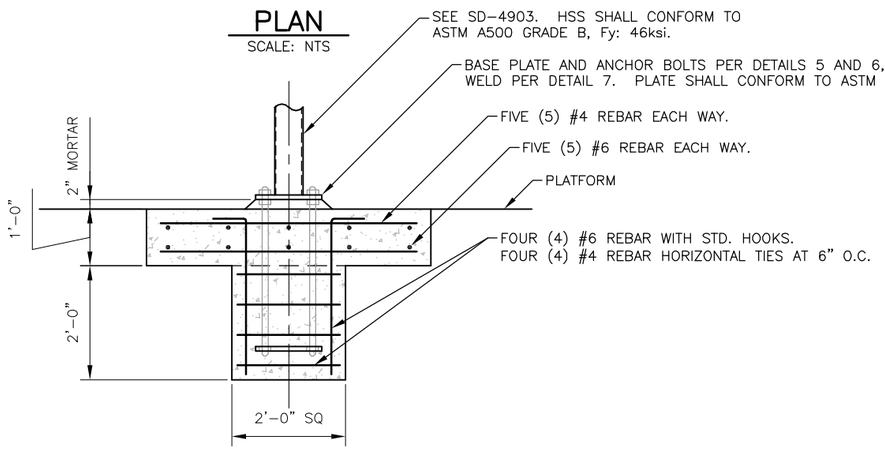
STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4904



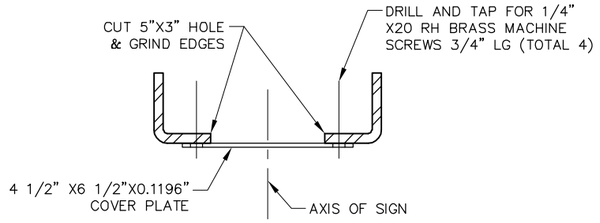
VMS POLE FOOTING DETAIL

PLAN
SCALE: NTS

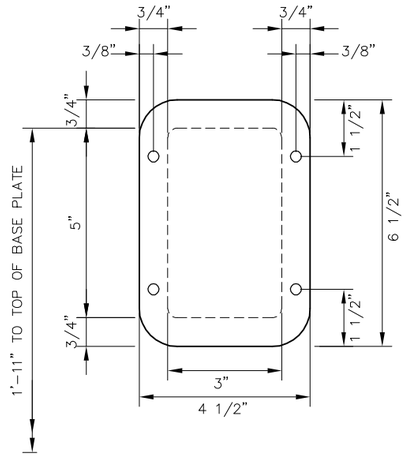


VMS POLE FOOTING DETAIL

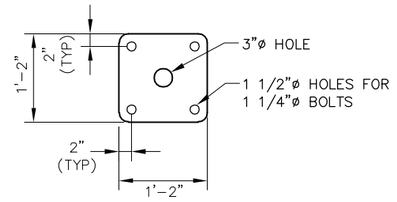
A – SECTION
SCALE: NTS



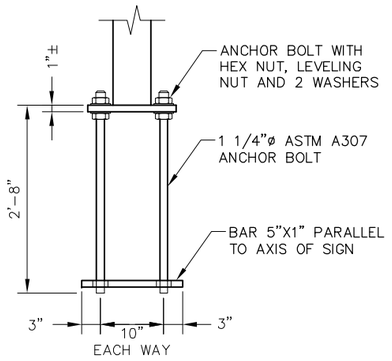
NOTE:
SEE SD-4903 FOR HANDHOLE ORIENTATION.



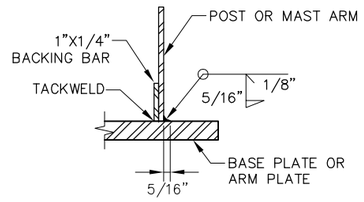
4 – HANDHOLE DETAIL
NTS



5 – BASE PLATE DETAIL
NTS



6 – ANCHOR BOLT DETAIL
NTS



7 – WELDING DETAIL
NTS

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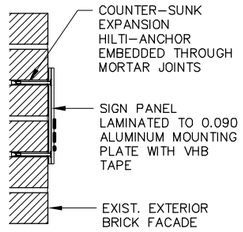
STANDARD DRAWINGS

STATION COMMUNICATIONS
COMMUNICATION EQUIPMENT
VMS BOARD POLE MOUNTING DETAILS
SHEET 2 OF 2

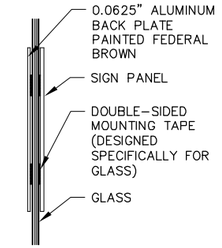
CADD FILE NAME: SD-4905
REV:
EDITION: FOURTH
STATION COMMUNICATIONS
STANDARD DRAWING NO.: SD-4905

NOTES:

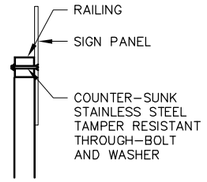
1. SIGNS MUST BE MOUNTED CAREFULLY TO THE HISTORIC BUILDING TO AVOID ANY DAMAGE. AT MASONRY STRUCTURES, HARDWARE ATTACHMENTS MUST PENETRATE MORTAR JOINTS RATHER THAN BRICK OR STONE
2. ANY MOUNTING HARDWARE THAT WILL BE VISIBLE AT HISTORIC STATIONS MUST REFLECT EXISTING MATERIALS AT THAT STATION
3. ALL FASTENERS SHALL BE NON-CORROSIVE TO SIGN MATERIAL AND/OR MOUNTING SURFACE
4. ANY UNFINISHED MATERIAL SURFACES WITH DIRECT CONTACT ON CONCRETE SHALL HAVE A COATING OF BITUMINOUS PAINT



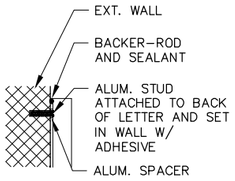
BRICK/MASONRY



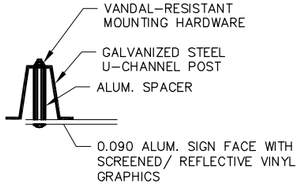
GLASS



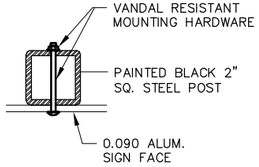
RAILING



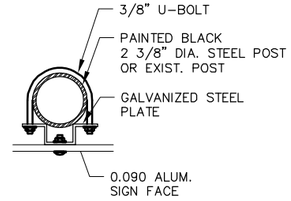
RAISED LETTERS



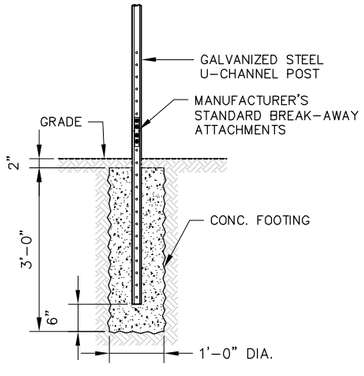
U-CHANNEL POST



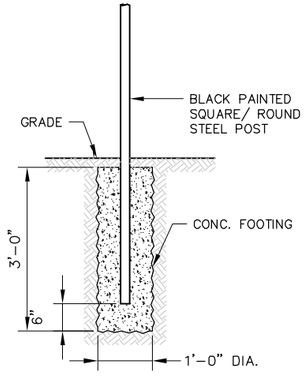
SQUARE POST



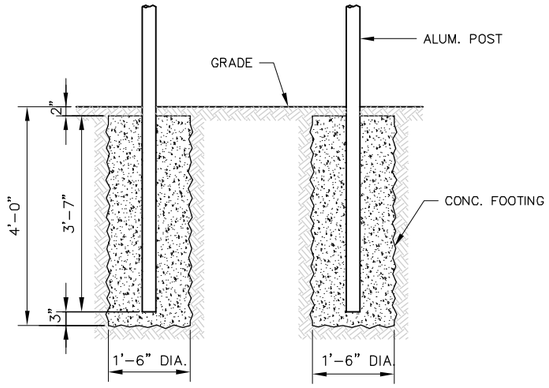
ROUND POST



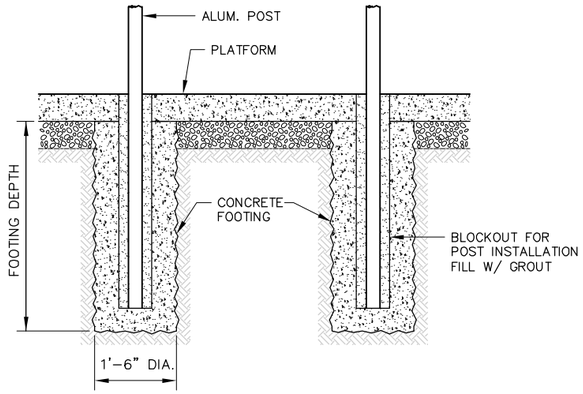
U-CHANNEL POST FOUNDATION



ROUND/SQUARE POST FOUNDATION



POST & PANEL FOUNDATION ON GRADE



POST & PANEL FOUNDATION ON PLATFORM

REV	DATE	BY	CHK	APP	DESCRIPTION
					01012024 FOURTH EDITION

REV	DATE	BY	CHK	APP

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

Bin Zhang

DEPUTY DIRECTOR, ENGINEERING

Caltrain

1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS

STATION COMMUNICATIONS
COMMUNICATION EQUIPMENT
POST FOUNDATION AND
SIGN MOUNTING DETAILS

CADD FILE NAME: SD-4906

REV: | EDITION: FOURTH

STATION COMMUNICATIONS

STANDARD DRAWING NO.: SD-4906