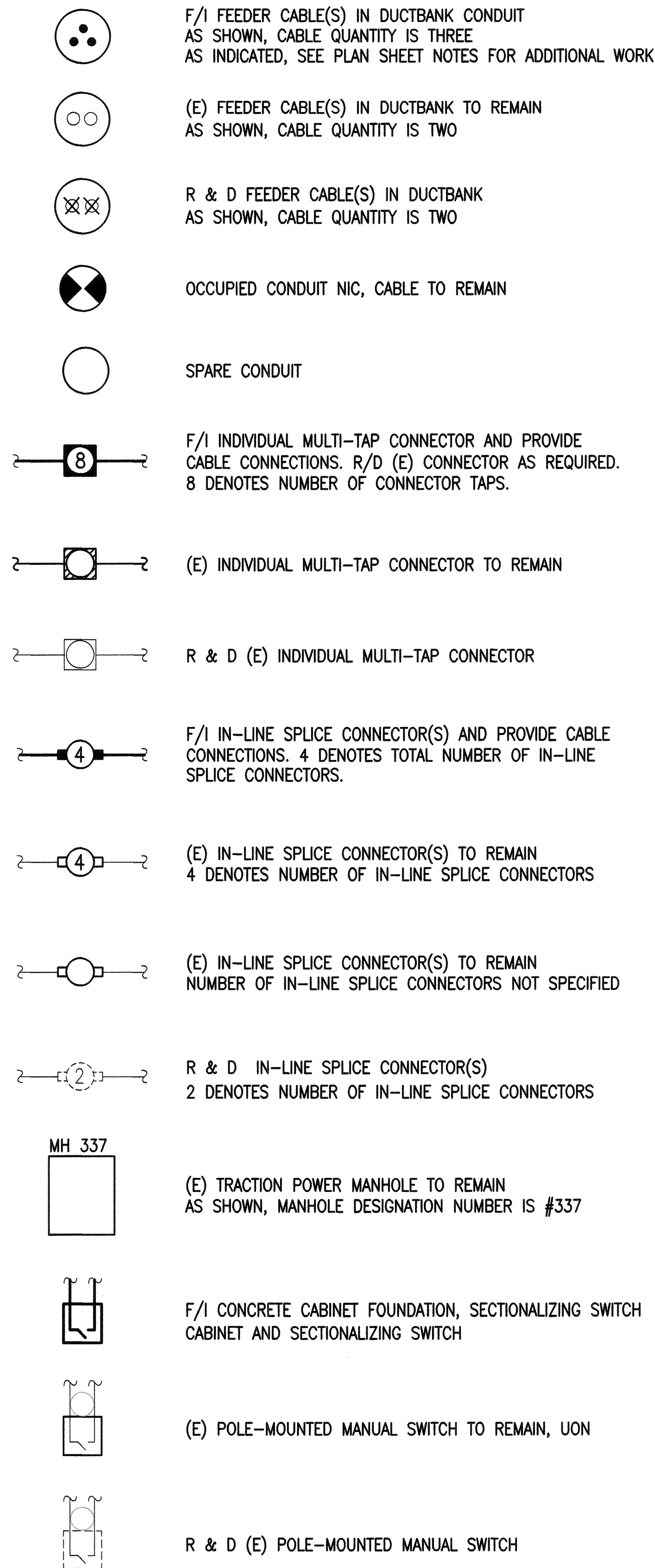
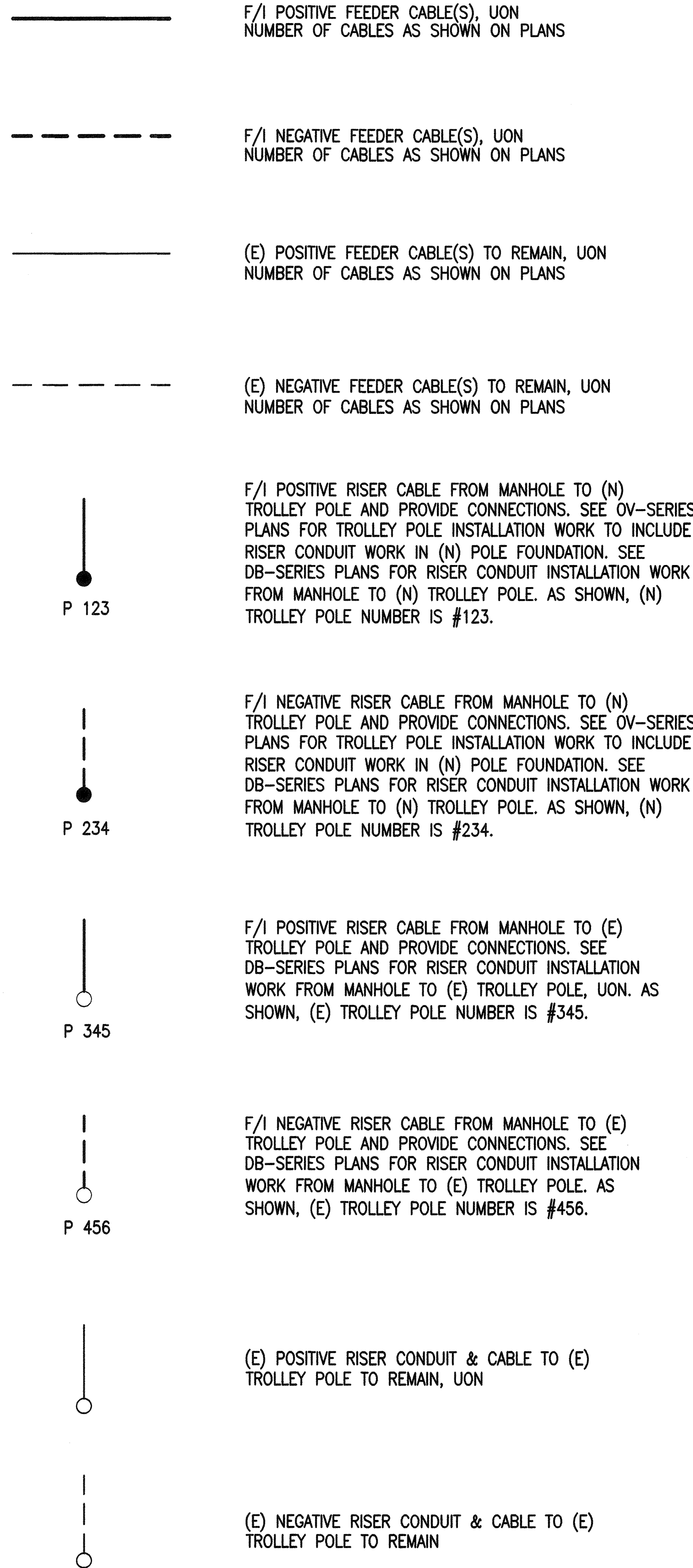


TRACTION POWER SYMBOLS



TRACTION POWER ABBREVIATIONS

1-#500	ONE (1) CABLE, SIZED 500 KCMIL
3-#750	THREE (3) CABLES, SIZED 750 KCMIL EACH
(A-F)	CABLE DESIGNATIONS A, B, C, D, E, & F
APPROX	APPROXIMATELY
BKR	BREAKER
BSCW	BARE STRANDED COPPER WIRE
CC-25	CIVIC CENTER SUBSTATION FEEDER CIRCUIT #25
CKT	CIRCUIT
DB	DUCTBANK
EXT	EXTERNAL
F-21	FILLMORE SUBSTATION FEEDER CIRCUIT #21
FDR	FEEDER
GND	GROUND
KCMIL	THOUSAND CIRCULAR MILS
M-5	MARINA SUBSTATION FEEDER CIRCUIT #5
MH	MANHOLE
MS-28	MANUAL SWITCH #28
MTD	MOUNTED
NEG	NEGATIVE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OVH	OVERHEAD
P	POLE
POS	POSITIVE
SS-22	SECTIONALIZING SWITCH #22
TP	TROLLEY POLE OR TRACTION POWER
TP	TYPICAL

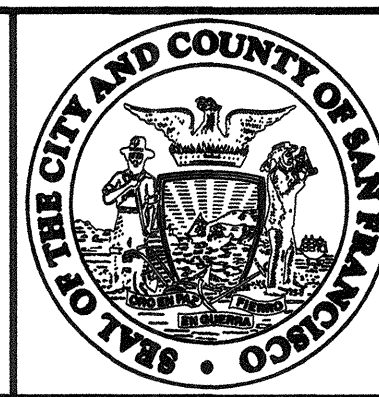
TRACTION POWER GENERAL NOTES

- THESE ELECTRICAL PLANS ARE DIAGRAMMATIC AND CORRECT FOR GENERAL DESIGN ONLY. EXACT LOCATIONS OF POLES, MANHOLES, AND CONDUIT ROUTING MAY VARY DEPENDING ON THE SITE CONDITIONS AND SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. FOR CLARITY OF WORK, NOT ALL (E) COMPONENTS ARE SHOWN.
- (N) UNDERGROUND CONDUITS TO BE INSTALLED SHALL MAINTAIN THE REQUIRED CLEARANCE FROM OTHER UTILITIES PER GO 128. (N) POLES AND OVERHEAD WIRES TO BE INSTALLED SHALL MAINTAIN THE REQUIRED CLEARANCE FROM OTHER UTILITIES PER GO 95.
- (E) DUCTBANK SECTIONS AND CABLE ASSIGNMENTS SHOWN ON PLANS ARE BASED ON PRELIMINARY FIELD INVESTIGATIONS AND AS-BUILT DRAWINGS. CONTRACTOR SHALL VERIFY (E) FEEDER & RISER CABLE ASSIGNMENTS AND SPARE CAPACITY IN DUCTS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. FOR CLARITY OF WORK, NOT ALL (E) DUCTS MAY BE SHOWN.
- F/I DUCT SHIELDS UNDER ALL (N) & (E) FEEDER CABLES (TO REMAIN) AT FACE OF DUCTBANK IN MANHOLES.
- F/I ID TAG FOR EACH (N) FEEDER & RISER CABLE IN EACH MANHOLE. F/I ID TAG FOR (E) CABLES WHICH DO NOT HAVE AN ID TAG OR DO NOT MATCH WHAT IS SHOWN ON THE PLANS AS APPROVED BY THE ENGINEER.
- PROVIDE AND CONNECT A GROUND ROD TO EACH NEW TROLLEY POLE PER STD DWG CL-17465. FOR GROUNDING OF NEW TROLLEY POLES WITH SPECIAL FOUNDATIONS, THE CONTRACTOR SHALL DETERMINE THE LOCATION OF THE GROUND ROD WITH THE APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL USE EXTREME CAUTION NOT TO DISTURB LIVE CIRCUITS WHEN INSTALLING AND/OR REMOVING CABLES IN/FROM MANHOLES AND DUCTBANK.
- THE CONTRACTOR SHALL CONTACT MUNI POWER CONTROL CENTER THROUGH THE ENGINEER FOR THE ENERGIZING AND DE-ENERGIZING OF FEEDER CIRCUITS.
- SEE G-10 FOR ADDITIONAL SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.

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REVISIONS					

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DRAWN	<i>[Signature]</i>
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DATE	MAY 13 2016



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED
[Signature]
for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT

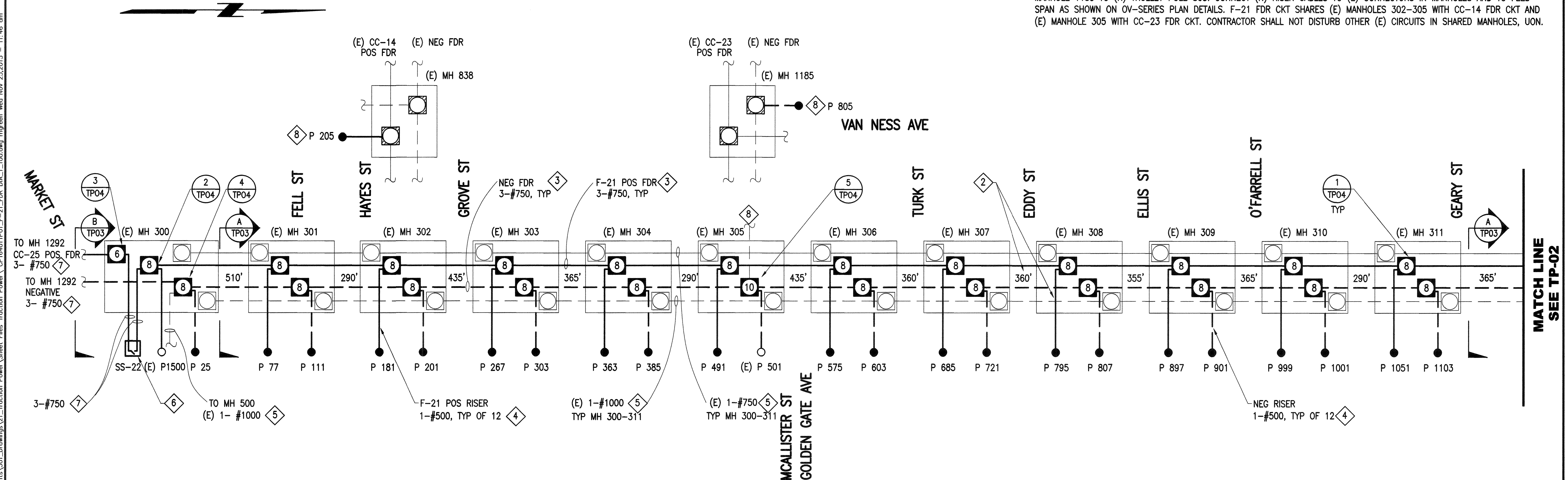
1289
CL-28972
TP-G1
TP-G1

**TRACTION POWER SYSTEM
GENERAL NOTES
ABBREVIATIONS AND SYMBOLS**

REVISION	0
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NOTES:

- SEE ORIGINAL F-21 FEEDER DIAGRAM (DWG NO. K-110) FOR REFERENCE. SEE TP-02 FOR CONTINUATION OF (N) F-21 FEEDER CIRCUIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING (E) CONDITIONS SHOWN ON THIS PLAN AND REFERENCE DRAWINGS.
- DISTANCES SHOWN ARE APPROXIMATE LINEAR DISTANCES. CONTRACTOR SHALL MAKE ALLOWANCE FOR VERTICAL DISTANCES, SPLICING, TRAINING, AND UNFORESEEN FIELD CONDITIONS WHEN DETERMINING CABLE LENGTH BETWEEN MANHOLES AND BETWEEN MANHOLES & RISER POLES.
- F/1 FEEDER CABLE IN (N) DUCTBANK AND PROVIDE CONNECTIONS TO MULTI-TAP CONNECTORS IN MANHOLES AS SHOWN IN DETAILS ON TP-03 & TP-04. ALL (N) POSITIVE & NEGATIVE FEEDER CABLES ARE SIZED 750 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON.
- F/1 RISER CABLE FROM (E) MANHOLE TO OCS VIA POLE INDICATED. CONNECT RISER CABLE TO MULTI-TAP CONNECTOR IN MANHOLE AS SHOWN IN DETAILS ON TP-04 AND TO FEED SPAN AS SHOWN IN OV-SERIES PLAN DETAILS. ALL (N) RISER CABLES ARE SIZED 500 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON.
- AFTER CUT-OVER TO (N) FEEDER CABLES, CUT (E) F-21 POSITIVE & NEGATIVE FEEDER CABLES AT FACE OF (E) DUCTBANK IN MANHOLES 300-311, TAPE ENDS AND ID AS "ABANDONED". R & D (E) CUT FEEDER CABLES WITHIN MANHOLES AND R & D (E) RISER CABLES FROM MANHOLES TO TROLLEY POLES. REFER TO AS-BUILTS FOR (E) DUCT ASSIGNMENTS IN (E) DUCTBANK AND FOR (E) RISER CABLE LAYOUT. NOTES TO CONTRACTOR: 1) (E) DUCTBANK SHARES (E) MANHOLES WITH (N) DUCTBANK AND 2) (E) NEGATIVE FEEDER CABLE BETWEEN MH 300 AND MH 500 TO REMAIN. MH 500 LOCATED AT MARKET ST & VAN NESS AVE.
- F/1 CONCRETE CABINET FOUNDATION, SECTIONALIZING SWITCH CABINET AND SECTIONALIZING SWITCH SS-22 BETWEEN MARKET AND OAK STREETS ON WESTERN SIDEWALK OF VAN NESS AVENUE. EXACT LOCATION TO BE DETERMINED IN FIELD PER THE ENGINEER'S APPROVAL. SEE DB-SERIES PLANS FOR CONDUIT INSTALLATION WORK BETWEEN SS-22 AND MH 300.
- SS-22 TO SERVE AS TIE-IN BETWEEN F-21 AND CC-25 FDR CKTS. F/1 3-#750 FOR EACH CIRCUIT BETWEEN SS-22 AND MH 300. SEE DB-SERIES PLANS FOR DUCTBANK AND FEEDER CONDUIT INSTALLATION WORK CONNECTING MANHOLES MH 300 AND MH 1292, TO INCLUDE CONDUIT INSTALLATION WORK UNDER TRACKS ACROSS MARKET STREET. SEE TP-09 FOR CONTINUATION OF CC-25 FDR CKT.
- F/1 (N) CC-14 RISER CABLE FROM (E) MANHOLE 838 TO (N) TROLLEY POLE 205 AND (N) NEG RISER CABLE FROM (E) MANHOLE 1185 TO (N) TROLLEY POLE 805. CONNECT (N) RISER CABLES TO (E) CONNECTORS IN MANHOLES AND TO FEED SPAN AS SHOWN ON OV-SERIES PLAN DETAILS. F-21 FDR CKT SHARES (E) MANHOLES 302-305 WITH CC-14 FDR CKT AND (E) MANHOLE 305 WITH CC-23 FDR CKT. CONTRACTOR SHALL NOT DISTURB OTHER (E) CIRCUITS IN SHARED MANHOLES, UON.

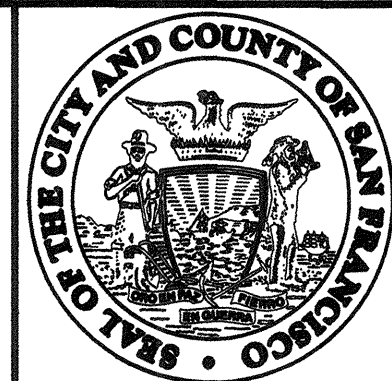


F-21: (N) UNDERGROUND FEEDER & RISER CABLE DIAGRAM

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DATE	MAY 13 2016



CITY AND COUNTY OF SAN FRANCISCO
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MUNI BUS RAPID TRANSIT SYSTEM		1289
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT		CL-28973
TRACTION POWER SYSTEM F-21 FEEDER CIRCUIT DIAGRAM SHEET 1 OF 2		TP-01
		TP-14
		REVISION 0

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FILLMORE STREET

WEBSTER STREET

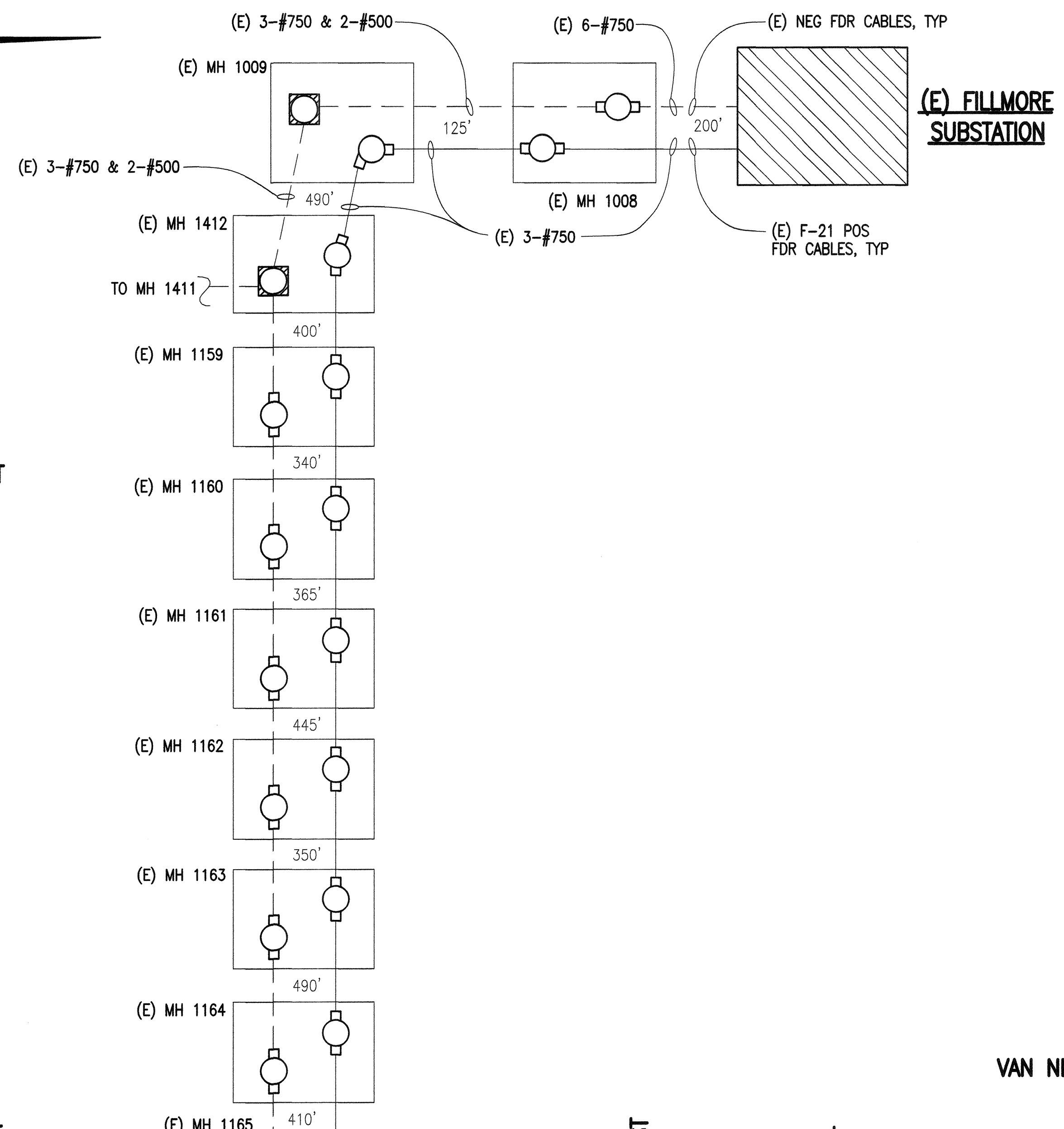
BUCHANAN STREET

LAGUNA STREET

OCTAVIA STREET

GOUGH STREET

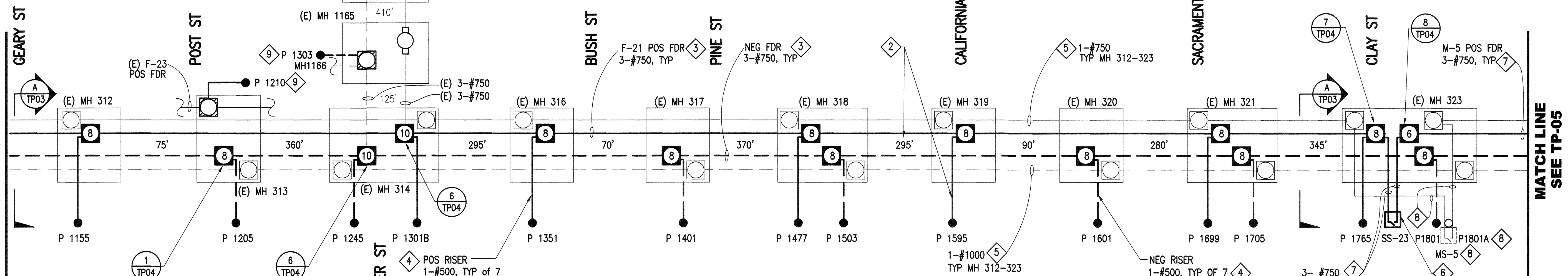
FRANKLIN STREET



(E) FILLMORE SUBSTATION

NOTES:

- SEE ORIGINAL F-21 FEEDER DIAGRAM (DWG NO. K-110) FOR REFERENCE. SEE TP-01 FOR CONTINUATION OF (N) F-21 FEEDER CIRCUIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING (E) CONDITIONS SHOWN ON THIS PLAN AND REFERENCE DRAWINGS.
- DISTANCES SHOWN ARE APPROXIMATE LINEAR DISTANCES. CONTRACTOR SHALL MAKE ALLOWANCE FOR VERTICAL DISTANCES, SPLICING, TRAINING, AND UNFORESEEN FIELD CONDITIONS WHEN DETERMINING CABLE LENGTH BETWEEN MANHOLES AND BETWEEN MANHOLES & RISER POLES.
- F/I FEEDER CABLE IN (N) DUCTBANK AND PROVIDE CONNECTIONS TO MULTI-TAP CONNECTORS IN MANHOLES AS SHOWN IN DETAILS ON TP-03 & TP-04. ALL (N) POSITIVE & NEGATIVE FEEDER CABLES ARE SIZED 750 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON.
- F/I RISER CABLE FROM (E) MANHOLE TO OCS VIA POLE INDICATED. CONNECT RISER CABLE TO MULTI-TAP CONNECTOR IN MANHOLE AS SHOWN IN DETAILS ON TP-04 AND TO FEED SPAN AS SHOWN IN OV-SERIES PLAN DETAILS. ALL (N) RISER CABLES ARE SIZED 500 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON.
- AFTER CUT-OVER TO (N) FEEDER CABLES, CUT (E) F-21 POSITIVE & NEGATIVE FEEDER CABLES AT FACE OF (E) DUCTBANK IN MANHOLES 312-323, TAPE ENDS AND ID AS "ABANDONED". R & D (E) CUT FEEDER CABLES WITHIN MANHOLES AND R & D (E) RISER CABLES FROM MANHOLES TO TROLLEY POLES. REFER TO AS-BUILTS FOR (E) DUCT ASSIGNMENTS IN (E) DUCTBANK AND FOR (E) RISER CABLE LAYOUT. NOTES TO CONTRACTOR: 1) (E) DUCTBANK SHARES (E) MANHOLES WITH (N) DUCTBANK AND 2) (E) FEEDER CABLES FROM FILLMORE SUBSTATION TO MH 314 TO REMAIN.
- F/I CONCRETE CABINET FOUNDATION, SECTIONALIZING SWITCH CABINET AND SECTIONALIZING SWITCH SS-23 ON THE SOUTHWEST CORNER OF VAN NESS AVE. AND CLAY ST. EXACT LOCATION OF SS-23 TO BE DETERMINED IN THE FIELD PER THE ENGINEER'S APPROVAL. SEE DB-SERIES PLANS FOR CONDUIT INSTALLATION WORK BETWEEN SS-23 AND MH 323.
- SS-23 TO SERVE AS TIE-IN BETWEEN FDR CKTS F-21 AND M-5. F/I 3-#750 FOR EACH CIRCUIT BETWEEN SS-23 AND MH-323. SEE TP-05 FOR CONTINUATION OF M-5 FDR CKT.
- AFTER CUT-OVER TO (N) SECTIONALIZING SWITCH SS-23, R & S (E) POLE-MTD MANUAL SWITCH MS-5 FROM (E) TROLLEY POLE 1801A. SWITCH REMOVAL TO INCLUDE R & D OF EXTERNAL CONDUIT, ASSOCIATED HARDWARE AND (E) CABLES FROM MS-5 TO MH 323. SEE OV-SERIES PLANS FOR POLE REMOVAL WORK.
- F/I (N) F-23 RISER CABLE FROM (E) MANHOLE 313 TO (N) TROLLEY POLE 1210 AND (N) NEGATIVE RISER CABLE FROM (E) MANHOLE 1165 TO (N) TROLLEY POLE 1303. CONNECT (N) RISER CABLE TO (E) CONNECTOR IN MANHOLE AND TO FEED SPAN AS SHOWN ON OV-SERIES PLAN DETAILS. F-21 FDR CKT SHARES (E) MANHOLES 311-314 WITH F-23 FDR CKT. CONTRACTOR SHALL NOT DISTURB OTHER (E) CIRCUITS IN SHARED MANHOLES, UON.

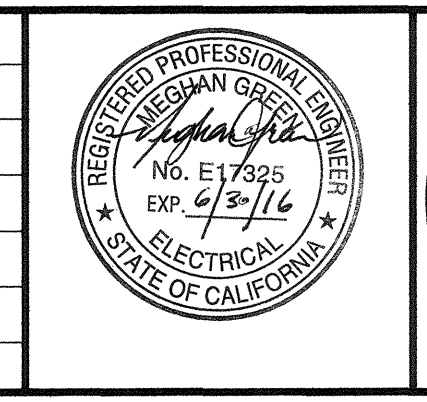


F-21: (N) UNDERGROUND FEEDER & RISER CABLE DIAGRAM
NTS

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REVIEWED	<i>[Signature]</i>
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APPROVED	<i>[Signature]</i>
DATE	MAY 13 2016



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

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for the DIRECTOR OF TRANSPORTATION

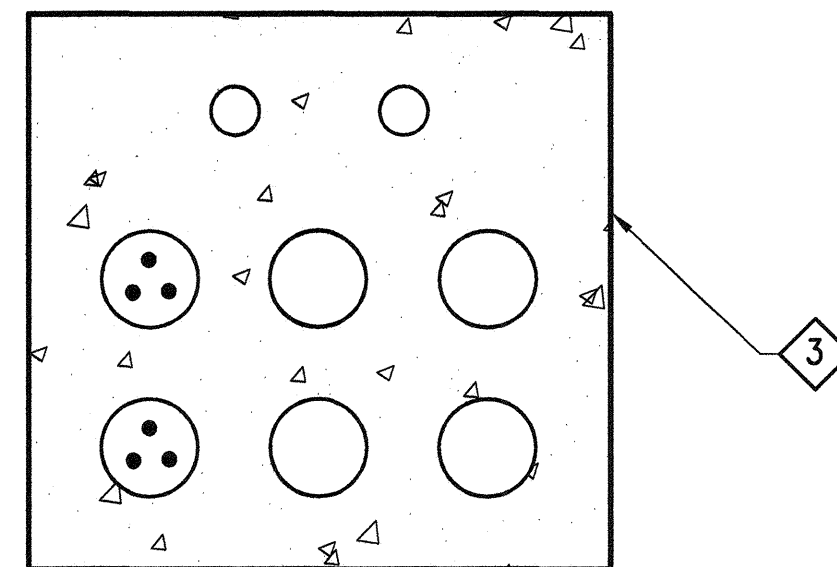
MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT

TRACTION POWER SYSTEM
F-21 FEEDER CIRCUIT DIAGRAM
SHEET 2 OF 2

1289	REVISION
CL-28974	0
TP-02	
TP-14	

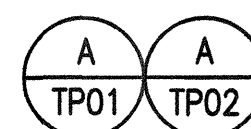
NOTES:

1. SEE TP-01 & TP-02 FOR (N) F-21 FEEDER & RISER CABLE WORK.
2. SEE TP-04 FOR (N) F-21 CABLE CONNECTION & ROUTING DETAILS.
3. SEE DB-SERIES PLANS FOR INSTALLATION WORK OF (N) DUCTBANK ALONG VAN NESS AVE FROM MARKET ST TO NORTH POINT ST.
4. SEE DB-SERIES PLANS FOR (N) DUCTBANK INSTALLATION WORK ALONG S. VAN NESS AVE AND CONDUIT INSTALLATION & CONFIGURATION DETAILS ACROSS MARKET ST BETWEEN MH'S 300 AND 1292.

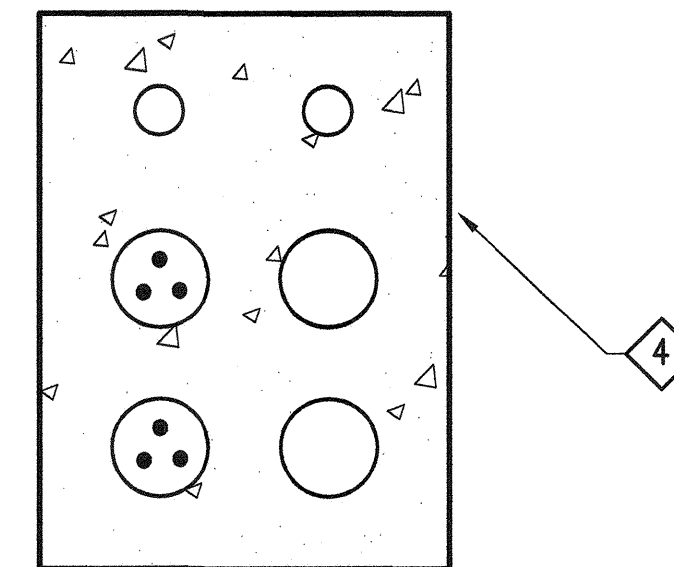


	SPARE 2"	SPARE 2"
F-21; POS (A,B,C) (N) 3-#750 KCMIL	SPARE 4"	SPARE 4"
NEGATIVE (N) 3-#750 KCMIL	SPARE 4"	SPARE 4"

2-2" & 6-4"



SECTION
MH 300-323





	SPARE 2"	SPARE 2"
CC-25; POS (A,B,C) (N) 3-#750 KCMIL	SPARE 4"	SPARE 4"
NEGATIVE (N) 3-#750 KCMIL	SPARE 4"	SPARE 4"

2-2" & 4-4"



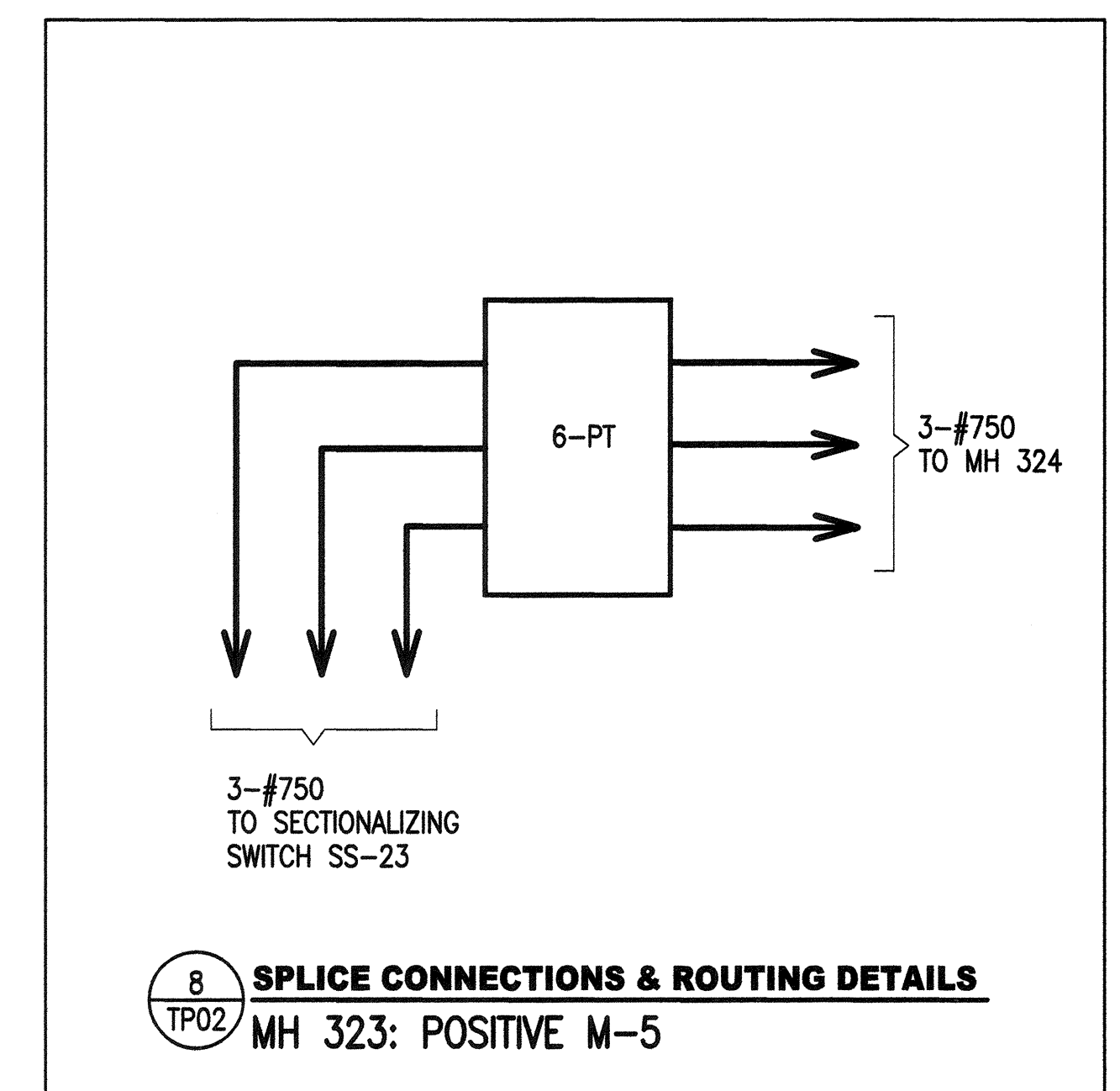
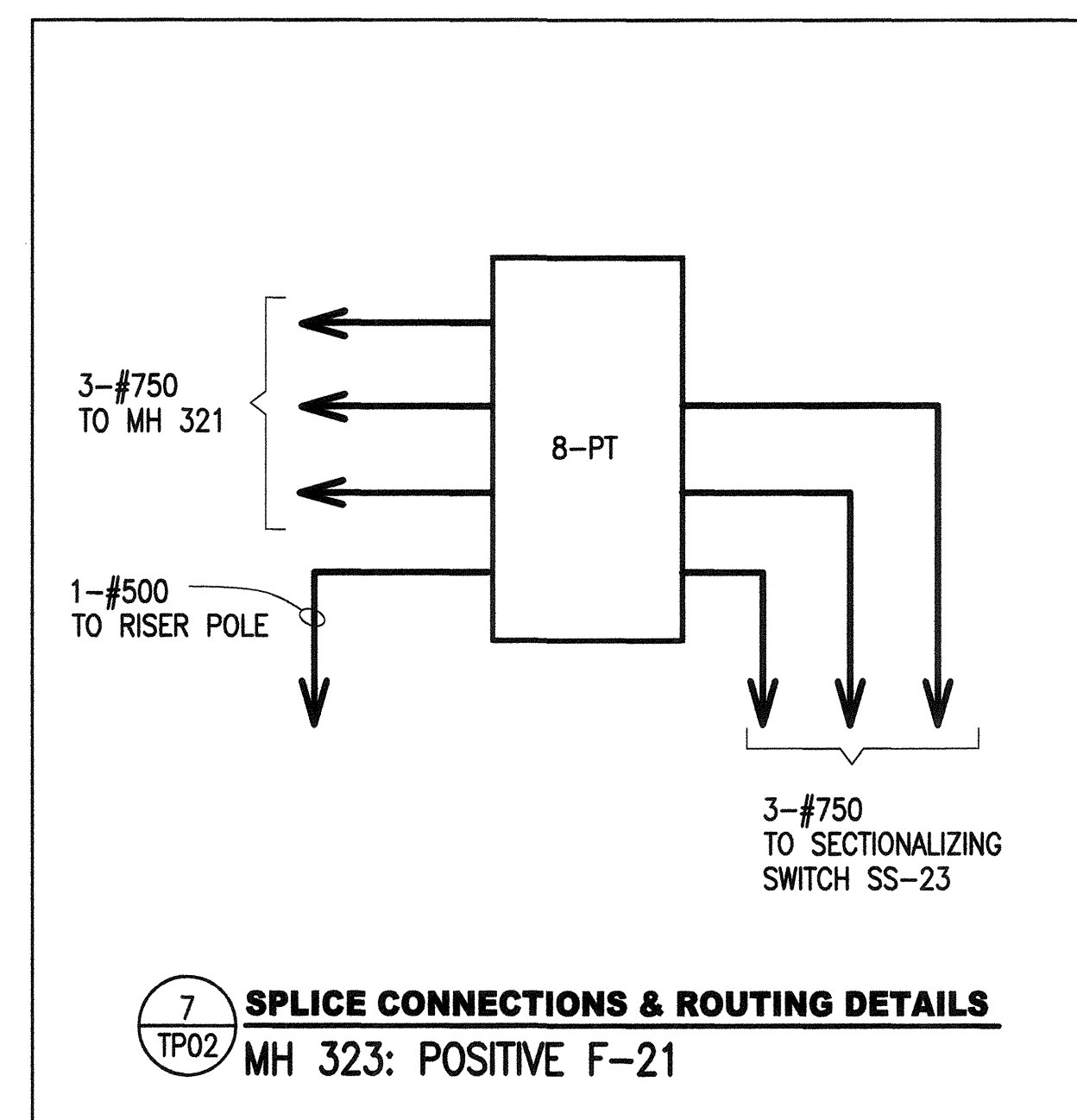
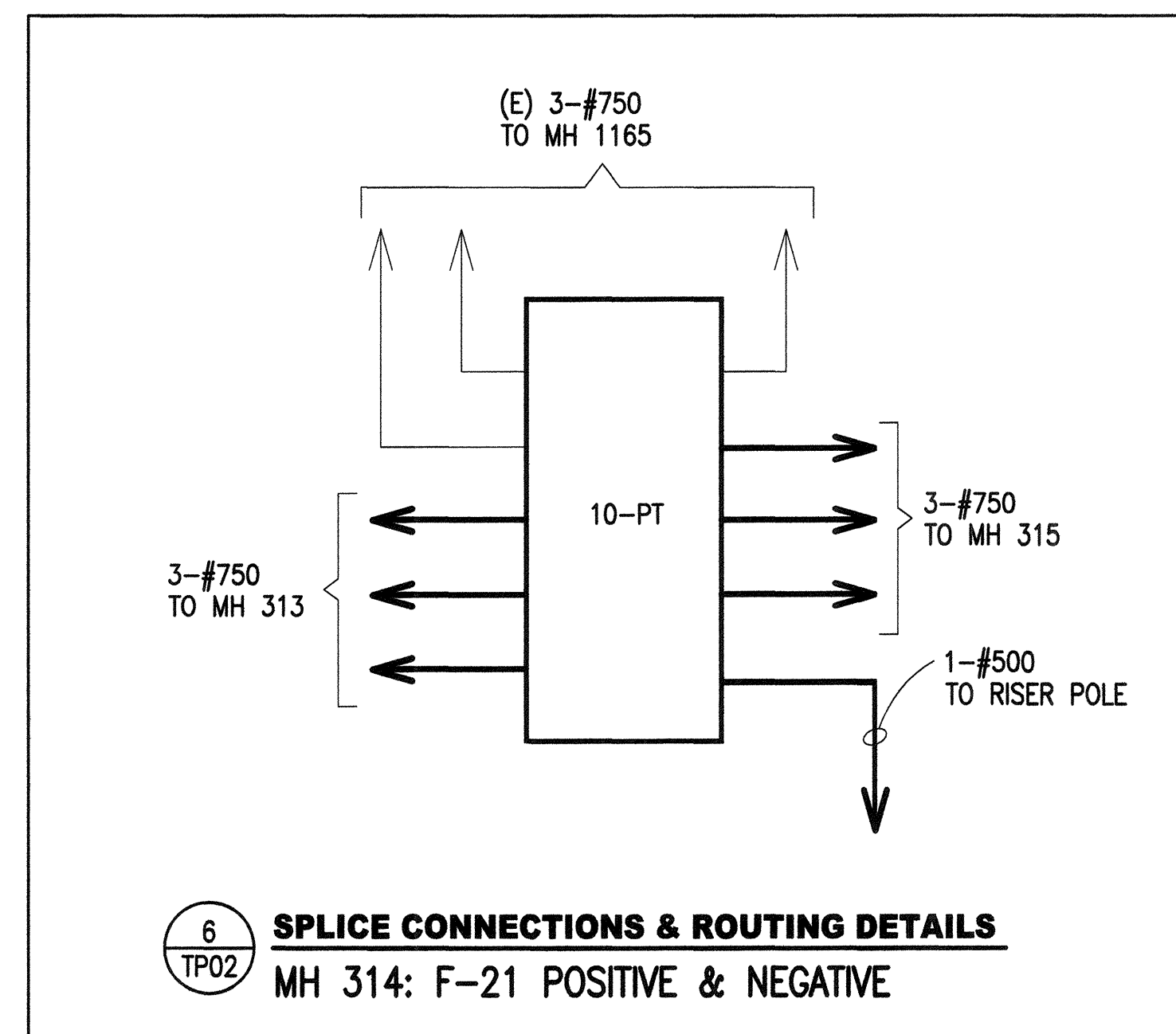
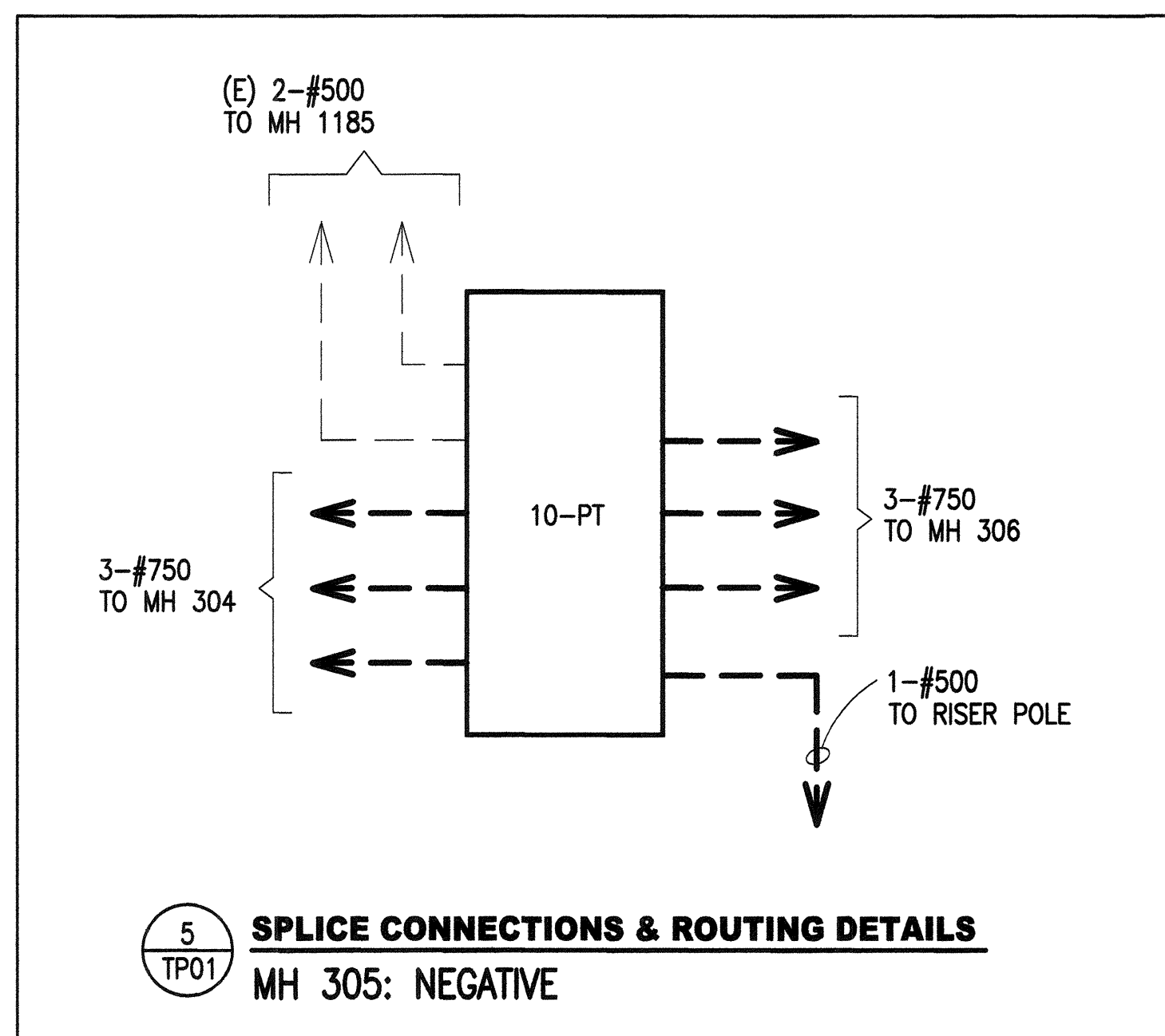
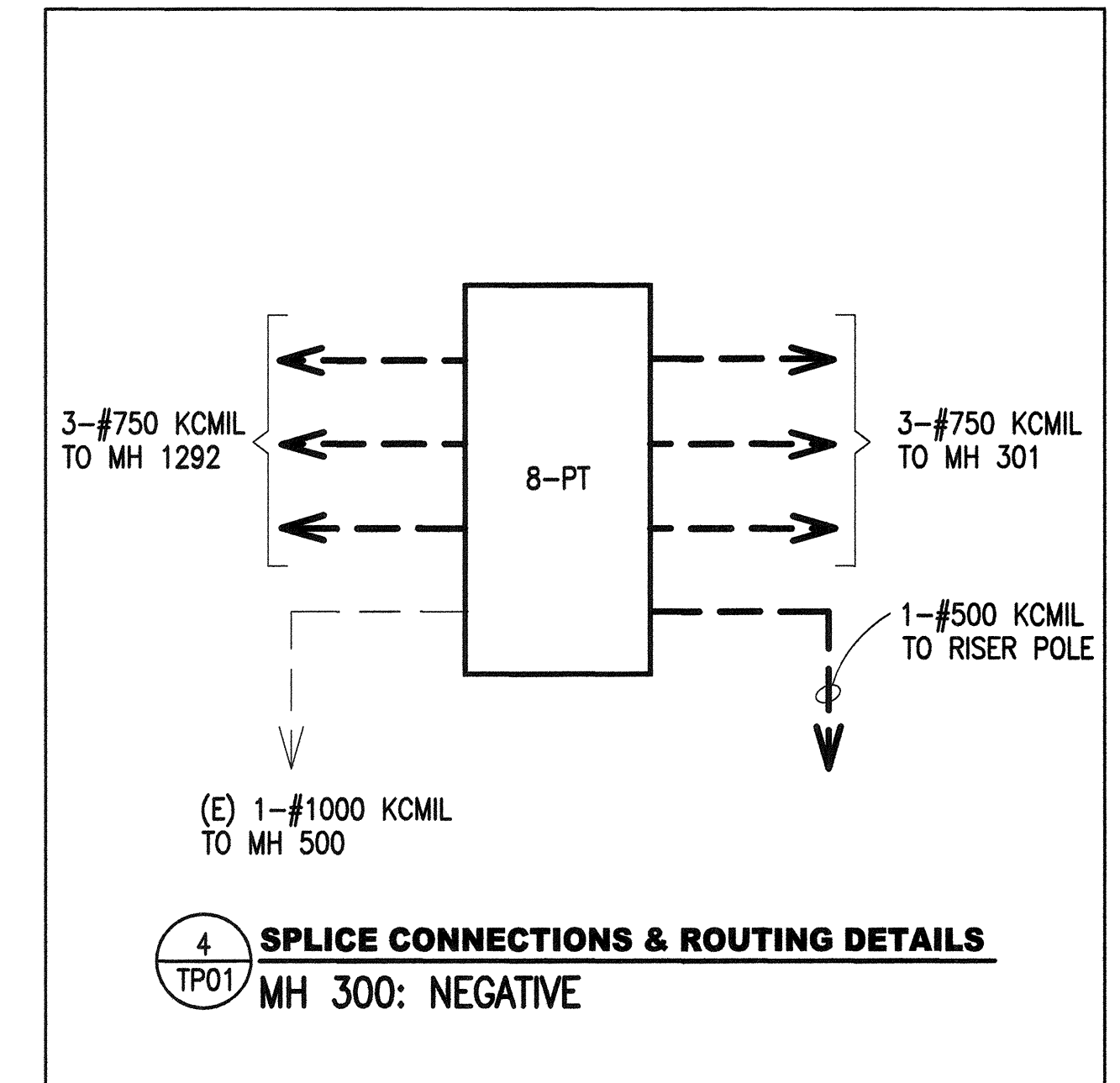
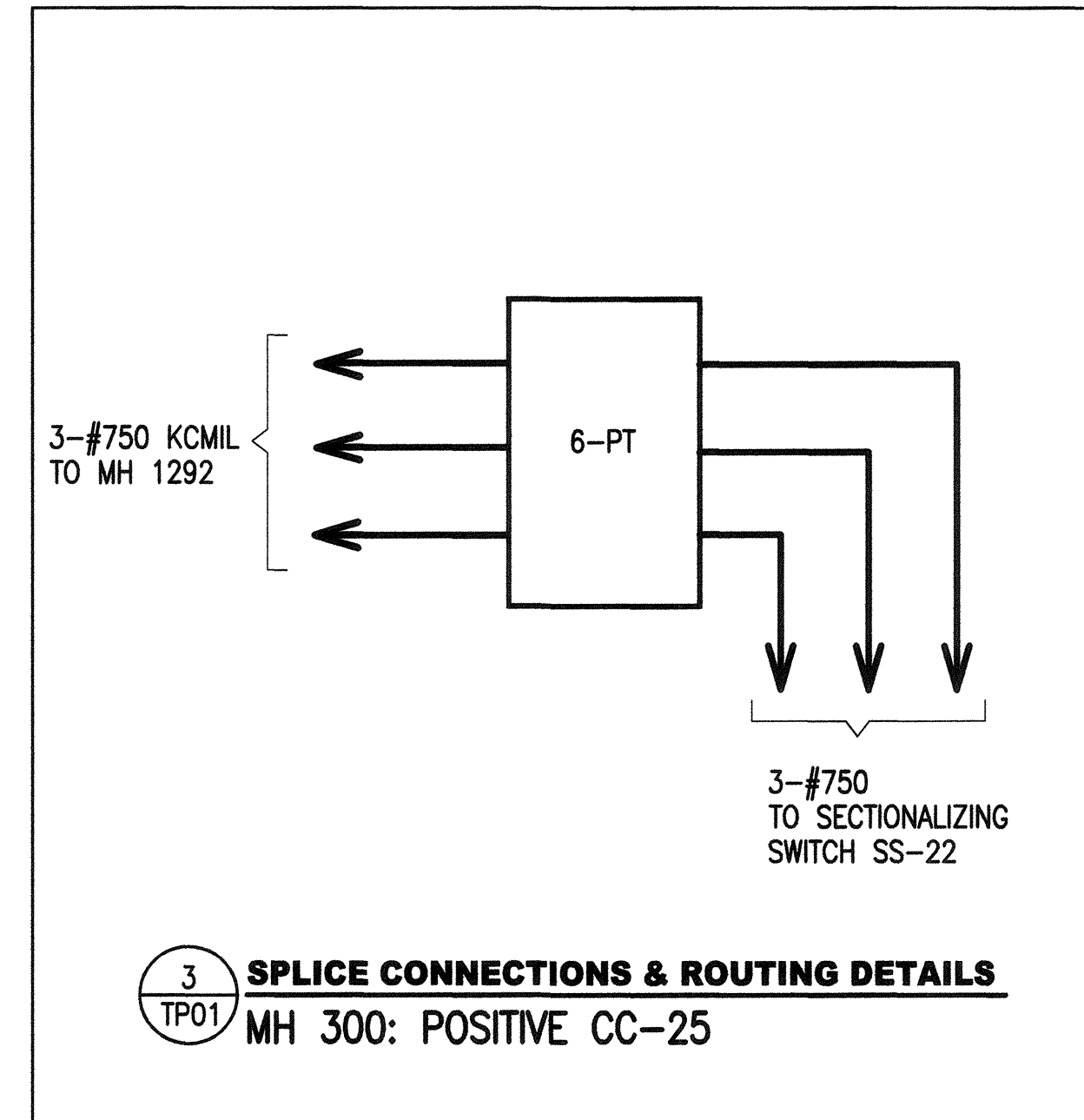
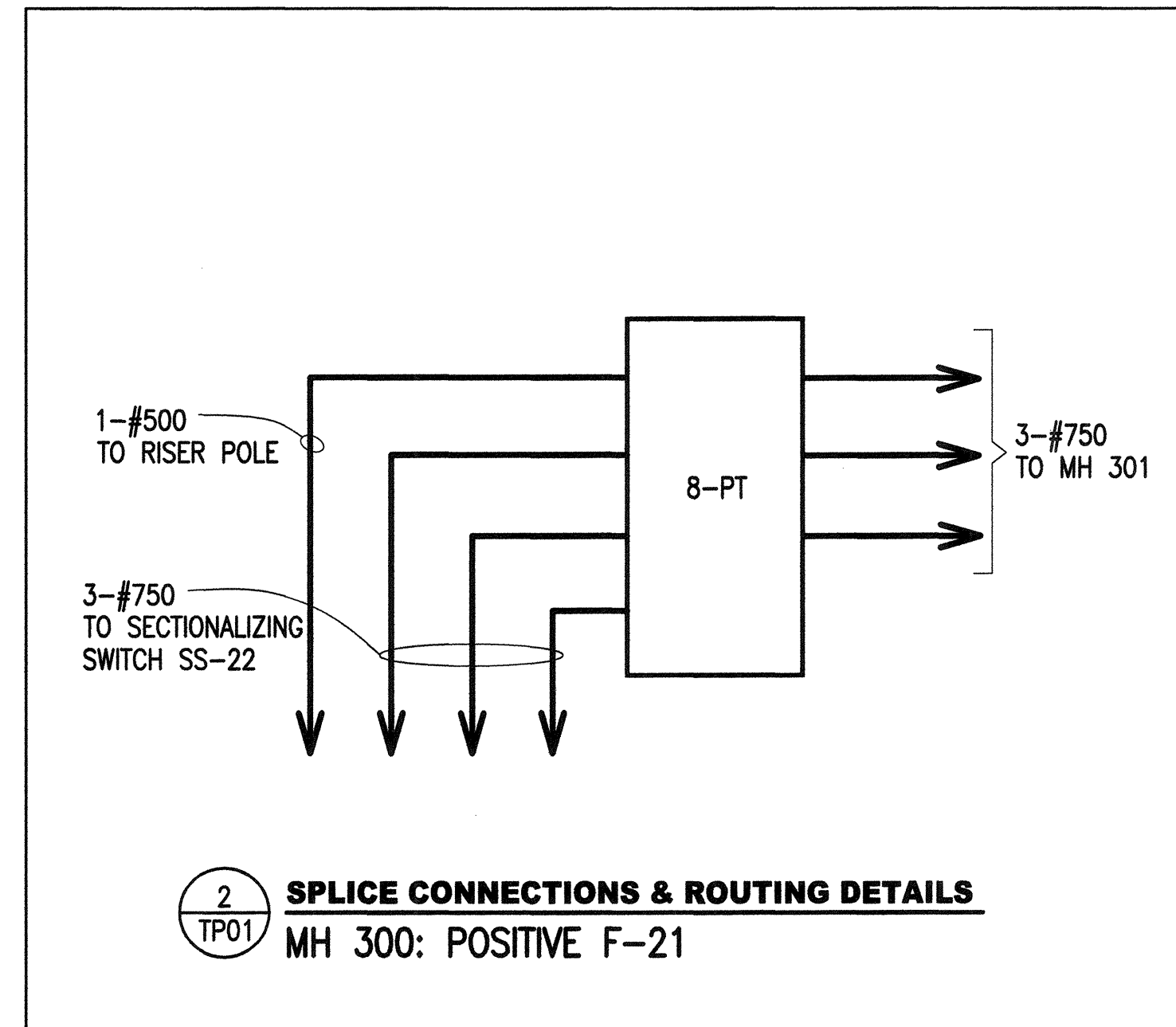
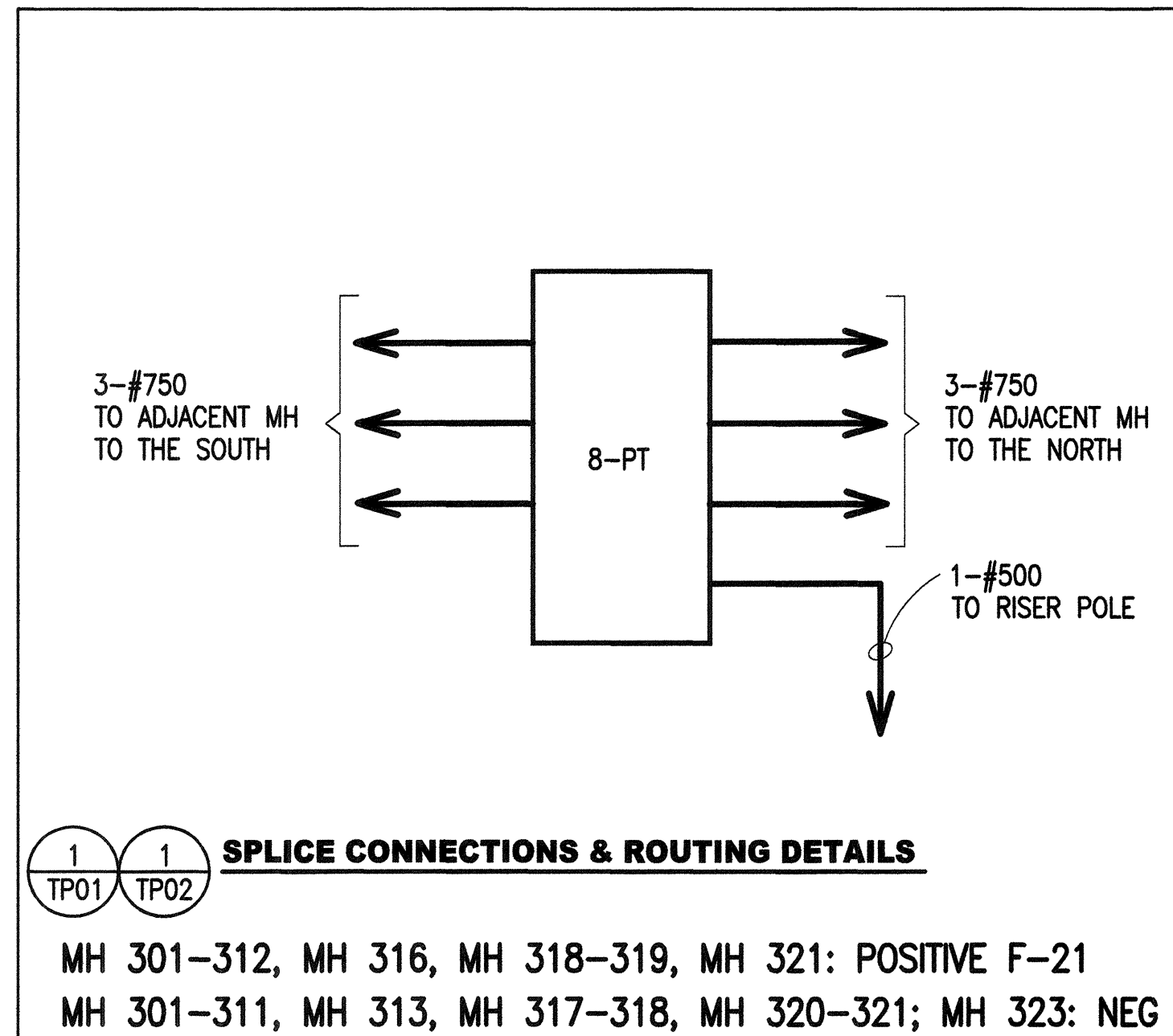
SECTION
MH 300

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					DESIGNED: <i>[Signature]</i> DRAWN: <i>[Signature]</i> CHECKED: <i>[Signature]</i> REVIEWED: <i>[Signature]</i> RECOMMENDED: <i>[Signature]</i> APPROVED: <i>[Signature]</i> DATE: MAY 13 2016		 		CITY AND COUNTY OF SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY APPROVED: <i>[Signature]</i> for the DIRECTOR OF TRANSPORTATION		MUNI BUS RAPID TRANSIT SYSTEM VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT		1289 CL-28975	
NO. DATE DESCRIPTION REVISED CHECKED APPROVED REVISIONS									TRACTION POWER SYSTEM F-21 DUCTBANK CABLE ASSIGNMENTS		TP-03 TP-14		REVISION 0	

NOTES:

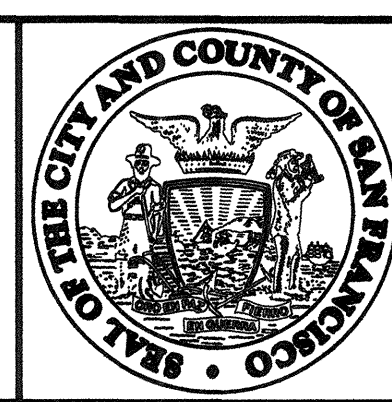
1. ALL FEEDER & RISER CABLES ARE NEW, UON.
2. SEE TP-01 & TP-02 FOR (N) FEEDER & RISER CABLE WORK.
3. SEE TP-03 FOR CABLE QTY AND ASSIGNMENTS IN DUCTBANK.



I: CPT640.1 Van Ness BRT V2_CER 500_Design Components 501_Drawings 21_Traction Power_Sheet Files Traction Power_CPT6401TP04_F-21_CONN_100.dwg dcheuk Thu Jul 02 2015 2:17 pm

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REVISIONS					

DESIGNED: *Stephan Green*
 DRAWN: *Stephan Green*
 CHECKED: *Stephan Green*
 REVIEWED: *Xi*
 RECOMMENDED: *F. Mohammedi*
 APPROVED: *F. Mohammedi*
 DATE: MAY 13 2016



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED: *Lucretia Harris*
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT

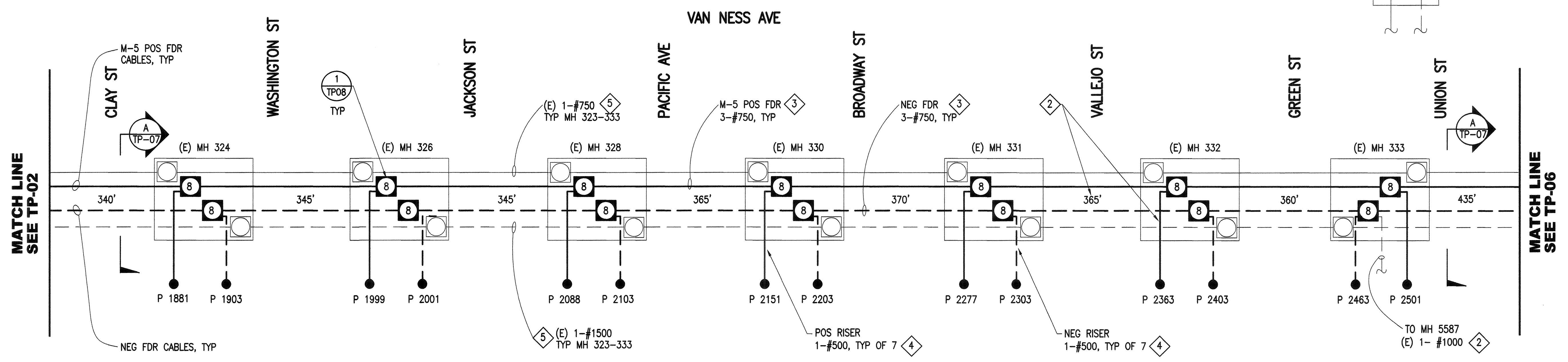
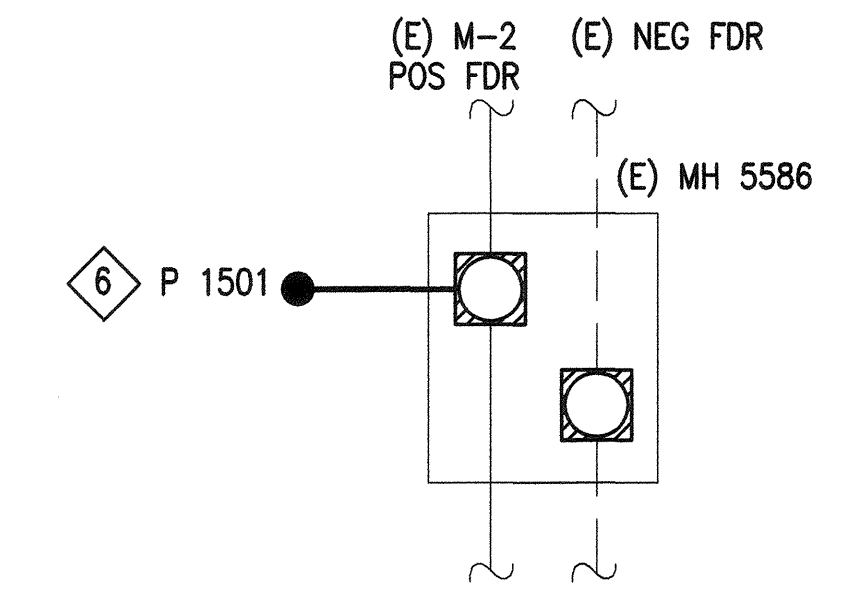
TRACTION POWER SYSTEM
F-21 CONNECTION DETAILS

1289	REVISION
CL-28976	
TP-04	0
TP-14	



NOTES:

- SEE ORIGINAL M-5 FEEDER DIAGRAM (DWG NO. K-108) FOR REFERENCE. SEE TP-02 AND TP-06 FOR CONTINUATION OF (N) M-5 FEEDER CIRCUIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING (E) CONDITIONS SHOWN ON THIS PLAN AND REFERENCE DRAWINGS.
- DISTANCES SHOWN ARE APPROXIMATE LINEAR DISTANCES. CONTRACTOR SHALL MAKE ALLOWANCE FOR VERTICAL DISTANCES, SPLICING, TRAINING, AND UNFORESEEN FIELD CONDITIONS WHEN DETERMINING CABLE LENGTH BETWEEN MANHOLES AND BETWEEN MANHOLES & RISER POLES.
- F/I FEEDER CABLE IN (N) DUCTBANK AND PROVIDE CONNECTIONS TO MULTI-TAP CONNECTORS IN MANHOLES AS SHOWN IN DETAILS ON TP-07 & TP-08. ALL (N) POSITIVE & NEGATIVE FEEDER CABLES ARE SIZED 750 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON.
- F/I RISER CABLE FROM (E) MANHOLE TO OCS VIA POLE INDICATED. CONNECT RISER CABLE TO MULTI-TAP CONNECTOR IN MANHOLE AS SHOWN IN DETAILS ON TP-08 AND TO FEED SPAN AS SHOWN IN OV-SERIES PLAN DETAILS. ALL (N) RISER CABLES ARE SIZED 500 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON.
- AFTER CUT-OVER TO (N) FEEDER CABLES, CUT (E) M-5 POSITIVE & NEGATIVE FEEDER CABLES AT FACE OF (E) DUCTBANK IN MANHOLES 324-333, TAPE ENDS AND ID AS "ABANDONED". R & D (E) CUT FEEDER CABLES WITHIN MANHOLES AND R & D (E) RISER CABLES FROM MANHOLES TO (E) TROLLEY POLES. REFER TO AS-BUILTS FOR (E) DUCT ASSIGNMENTS IN (E) DUCTBANK AND FOR (E) RISER CABLE LAYOUT. NOTES TO CONTRACTOR: 1) (E) DUCTBANK SHARES (E) MANHOLES WITH (N) DUCTBANK AND 2) (E) NEGATIVE CABLE BETWEEN MH 333 AND MH 5587 TO REMAIN. MH 5587 LOCATED AT UNION ST & VAN NESS AVE.
- F/I (N) M-2 RISER CABLE FROM (E) MANHOLE 3396 TO (N) TROLLEY POLE 1501. CONNECT (N) RISER CABLE TO (E) CONNECTOR IN MANHOLE AND TO FEED SPAN AS SHOWN ON OV-SERIES PLAN DETAILS.

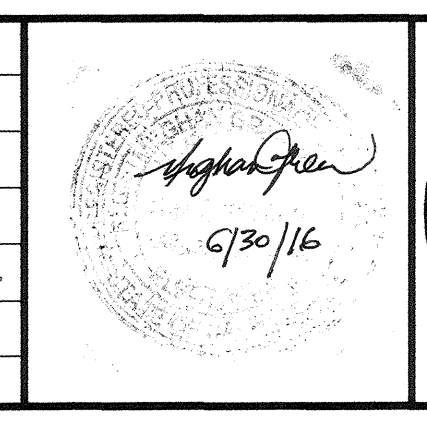


M-5: (N) UNDERGROUND FEEDER & RISER DIAGRAM 1
NTS

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REVIEWED	<i>[Signature]</i>
RECOMMENDED	<i>[Signature]</i>
APPROVED	<i>[Signature]</i>
DATE	MAY 13 2016



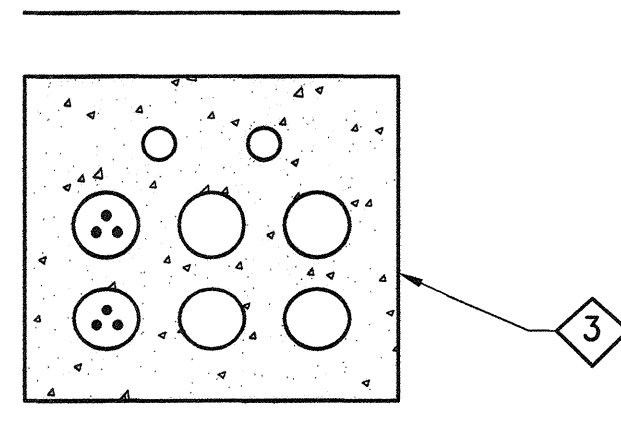
CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
 APPROVED
Vincent H. Hani
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT
 TRACTION POWER SYSTEM
M-5 FEEDER CIRCUIT DIAGRAM
 SHEET 1 OF 2

1289	REVISION
CL-28977	
TP-05	0
TP-14	

NOTES:

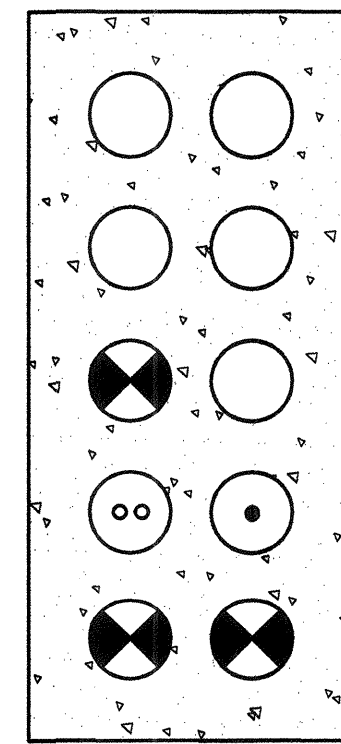
1. SEE TP-05 & TP-06 FOR (N) M-5 FEEDER & RISER CABLE WORK.
2. SEE TP-08 FOR (N) M-5 CABLE CONNECTION & ROUTING DETAILS.
3. SEE DB-SERIES PLANS FOR INSTALLATION WORK OF (N) DUCTBANK ALONG VAN NESS AVE FROM MARKET ST TO NORTH POINT ST.



	SPARE 2"	SPARE 2"
M-5; POS (A,B,C) (N) 3-#750 KCMIL	SPARE 4"	SPARE 4"
NEGATIVE (N) 3-#750 KCMIL	SPARE 4"	SPARE 4"

2-2" & 6-4"

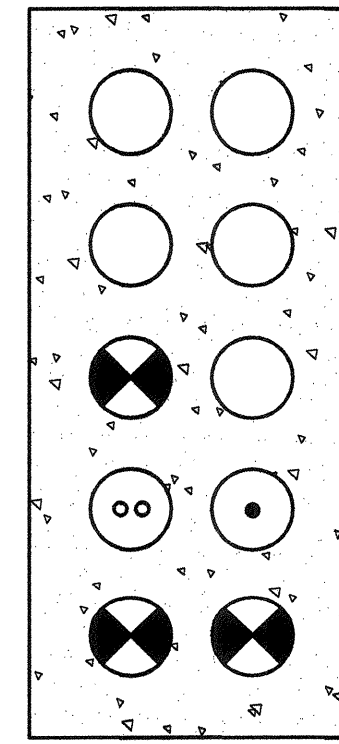
A SECTION
TP-05 TP-06 MH 323 TO MH 806



SPARE 5"	SPARE 5"
SPARE 5"	SPARE 5"
OCCUPIED	SPARE 5"
M-5; POS (A,B) 2-#750 KCMIL	M-5; POS (C) (N) 1-#750 KCMIL
OCCUPIED	OCCUPIED

10-5"

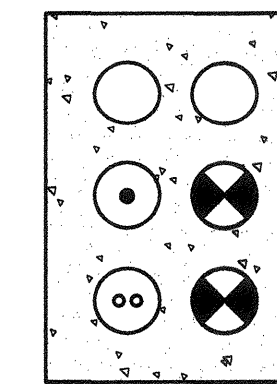
B SECTION
TP-06 MARINA SUBSTATION TO MH 2639



SPARE 5"	SPARE 5"
SPARE 5"	SPARE 5"
OCCUPIED	SPARE 5"
M-5; POS (A,B) 2-#750 KCMIL	M-5; POS (C) (N) 1-#750 KCMIL
OCCUPIED	OCCUPIED

10-5"

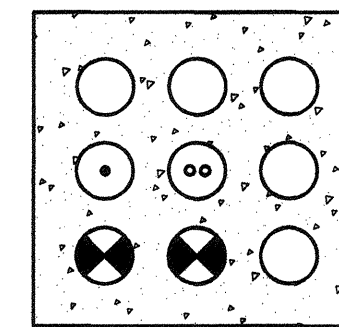
C SECTION
TP-06 MH 2639 TO MH 2640



SPARE 4"	SPARE 4"
M-5; POS (C) (N) 1-#750 KCMIL	OCCUPIED
M-5; POS (A,B) 2-#750 KCMIL	OCCUPIED

6-4"

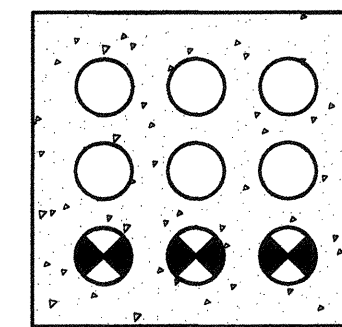
D SECTION
TP-06 MH 2640 TO MH 2628



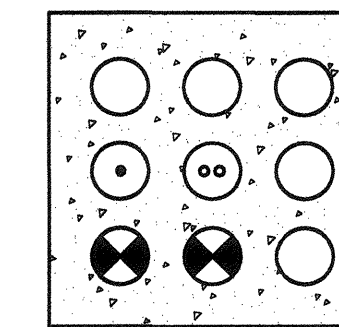
SPARE 3-1/2"	SPARE 3-1/2"	SPARE 3-1/2"
M-5; POS (C) (N) 1-#750 KCMIL	M-5; POS (A,B) 2-#750 KCMIL	SPARE 3-1/2"
OCCUPIED	OCCUPIED	SPARE 3-1/2"

18- 3-1/2"

E SECTION
TP-06 MH 2628 TO MH 7247



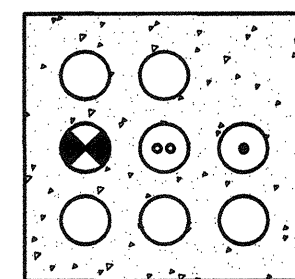
SPARE 3-1/2"	SPARE 3-1/2"	SPARE 3-1/2"
SPARE 3-1/2"	SPARE 3-1/2"	SPARE 3-1/2"
OCCUPIED	OCCUPIED	OCCUPIED



SPARE 3-1/2"	SPARE 3-1/2"	SPARE 3-1/2"
M-5; POS (C) (N) 1-#750 KCMIL	M-5; POS (A,B) 2-#750 KCMIL	SPARE 3-1/2"
OCCUPIED	OCCUPIED	SPARE 3-1/2"

18- 3-1/2"

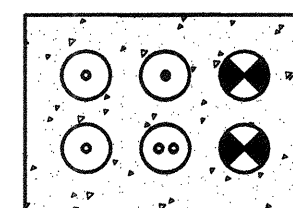
F SECTION
TP-06 MH 7247 TO MH 2203



SPARE 3"	SPARE 3"
OCCUPIED	M-5; POS (A,B) 2-#750 KCMIL
SPARE 3"	SPARE 3"

8-3"

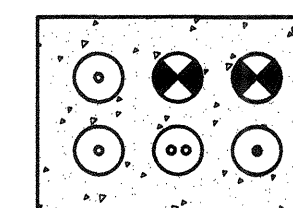
G SECTION
TP-06 MH 2203 TO MH 2004



NEGATIVE (E) 1-#2000 KCMIL	M-5; POS (C) (N) 1-#750 KCMIL	OCCUPIED
NEGATIVE (E) 1-#750 KCMIL	M-5; POS (A,B) (E) 2-#750 KCMIL	OCCUPIED

6-3"

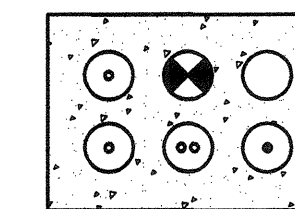
H SECTION
TP-06 MH 2002 TO MH 2004



NEGATIVE (E) 1-#2000 KCMIL	OCCUPIED	OCCUPIED
NEGATIVE (E) 1-#750 KCMIL	M-5; POS (A,B) (E) 2-#750 KCMIL	M-5; POS (C) (N) 1-#750 KCMIL

6-3"

I SECTION
TP-06 MH 2000 TO MH 2002



NEGATIVE; (E) 1-#2000 KCMIL	OCCUPIED	SPARE 3"
NEGATIVE; (E) 1-#750 KCMIL	M-5; POS (A,B) 2-#750 KCMIL	M-5; POS (C) (N) 1-#750 KCMIL

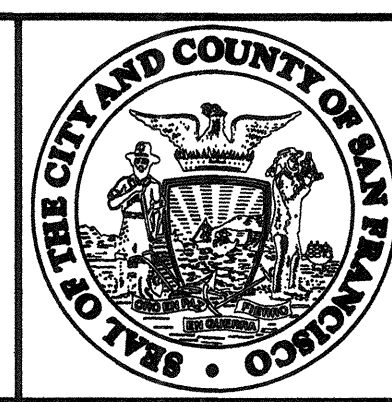
6-3"

J SECTION
TP-06 MH 337 TO MH 2000

I:\CPT640.1 Van Ness BRT V2_CER\500_Design Components\501_Drawings\21_Traction Power\Sheet Files Traction Power\CPT6401TP07_M-5_CROSS SEC_100.dwg dcheuk Wed Jun 10 2015 10:37 am

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					

DESIGNED: *Stephen Green*
 DRAWN: *Stephen Green*
 CHECKED: *River Xi*
 REVIEWED: *Tommy*
 RECOMMENDED: *Tommy*
 APPROVED: *F. Mohamed*
 DATE: MAY 13 2016



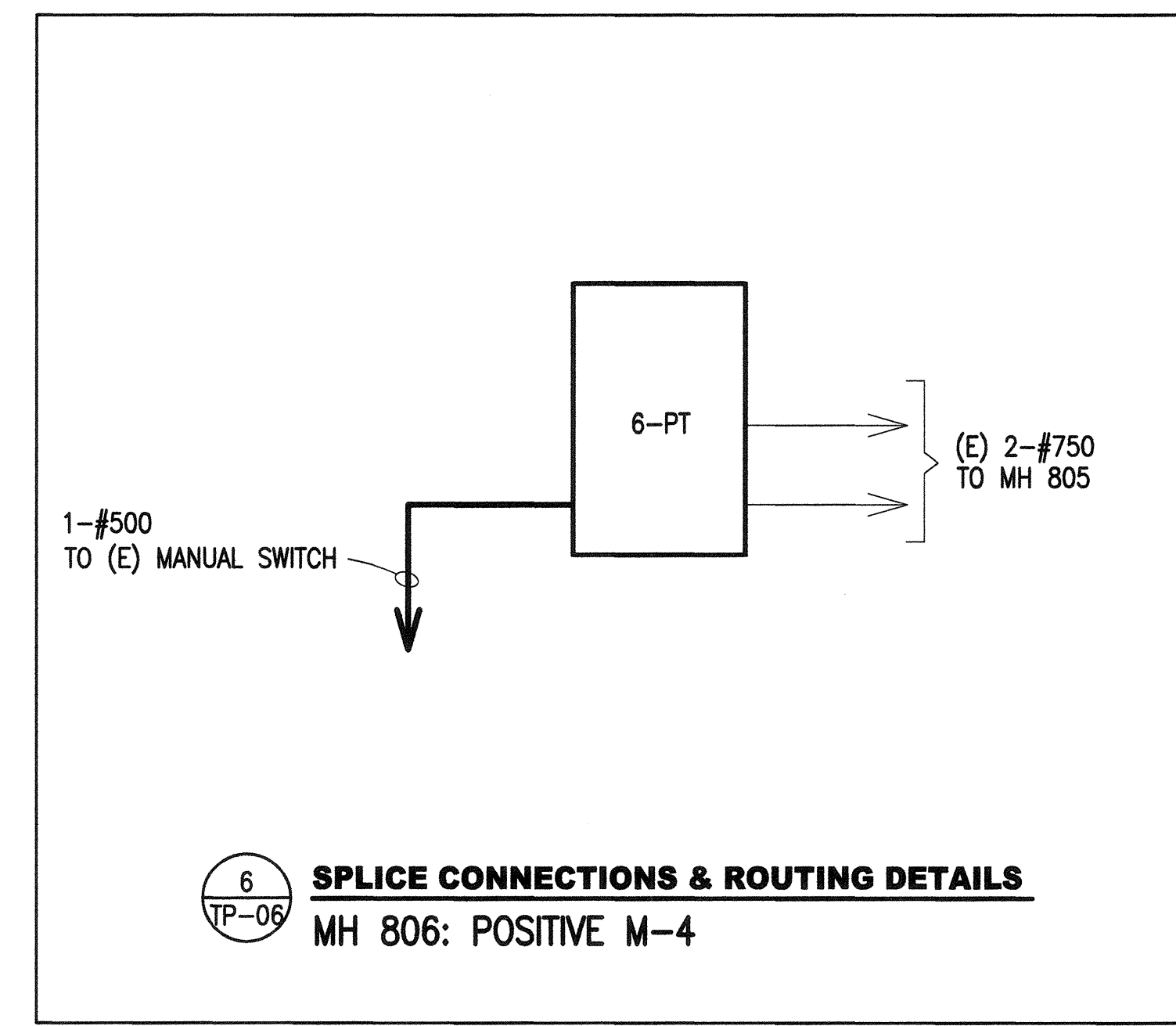
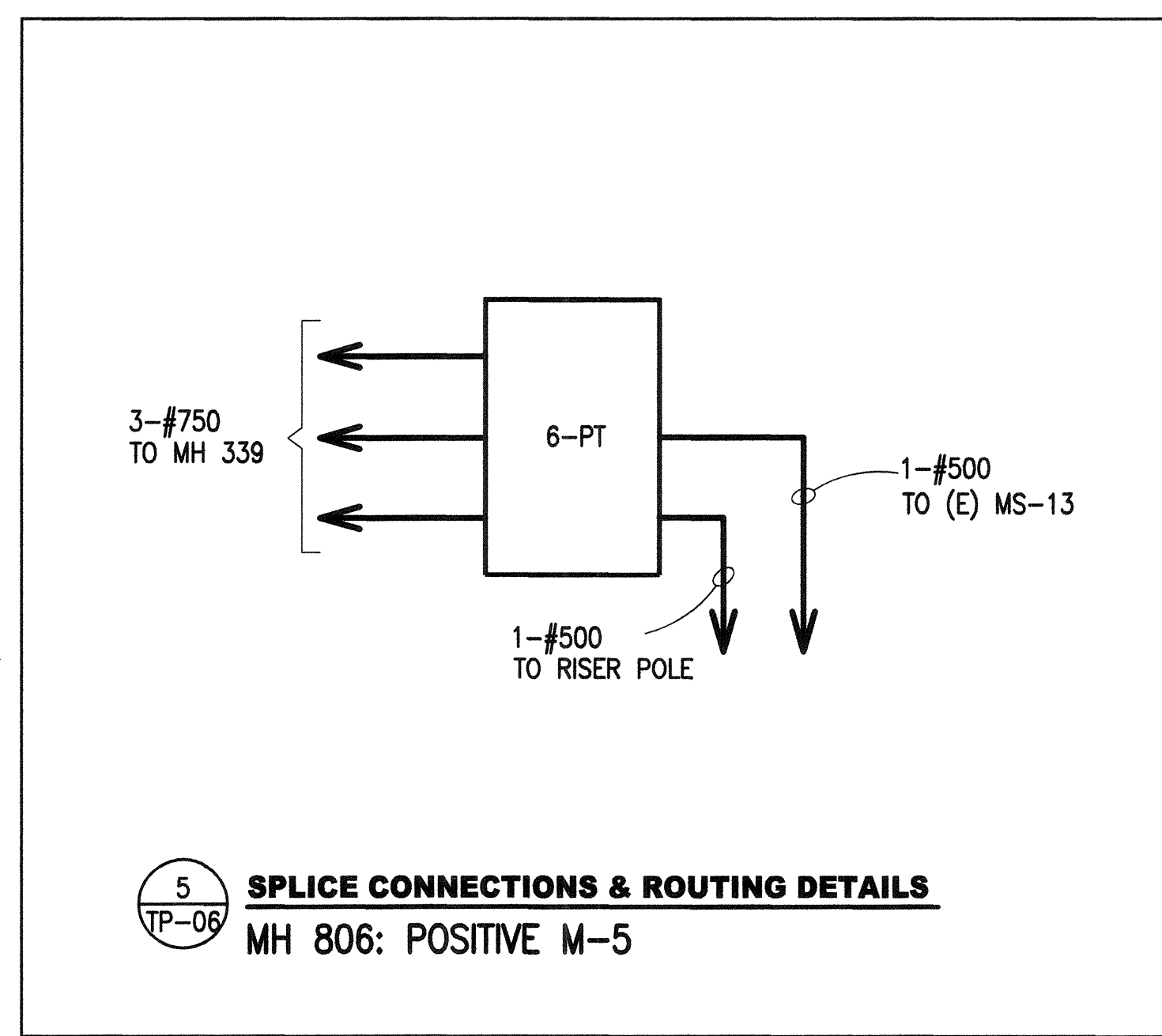
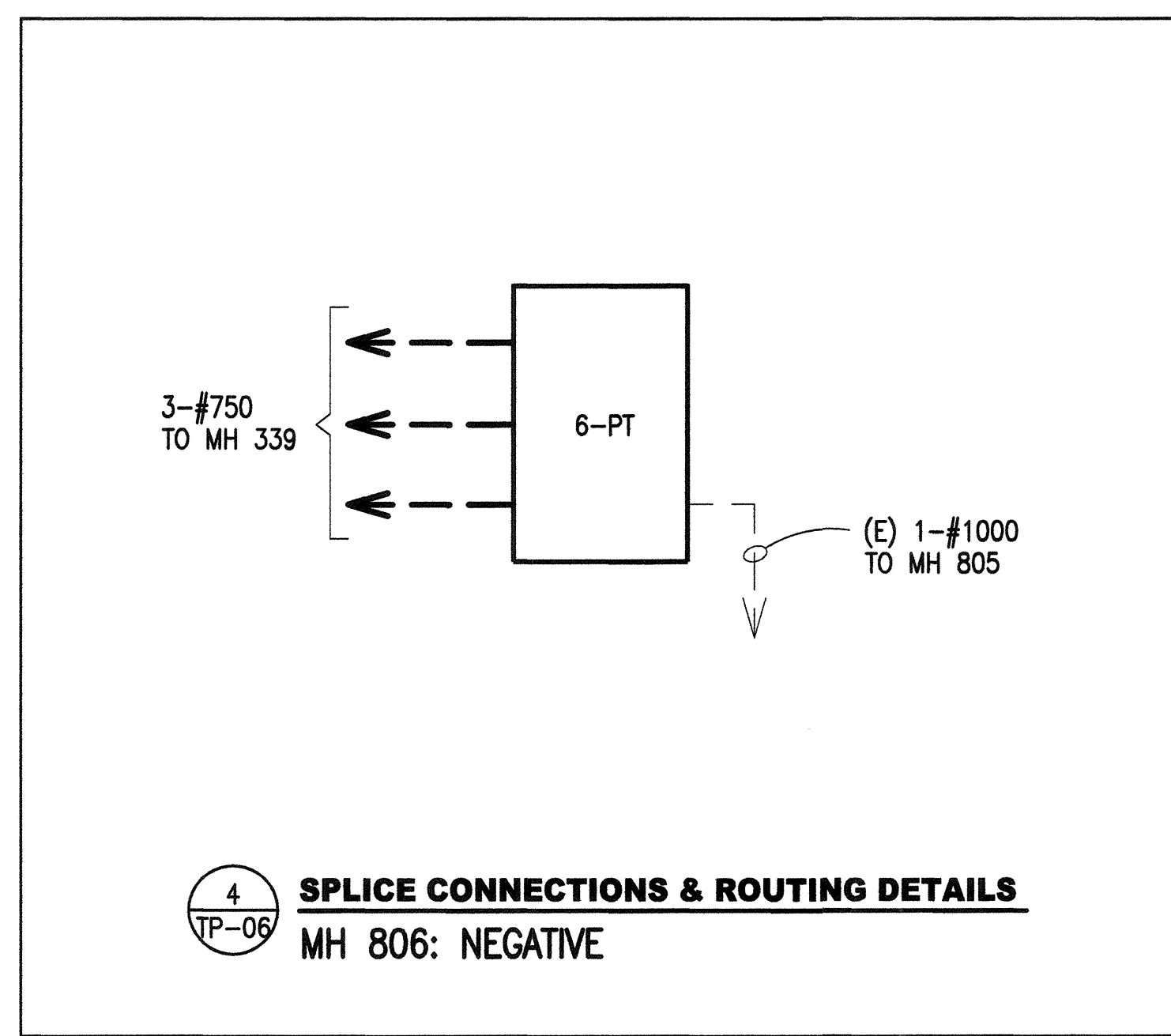
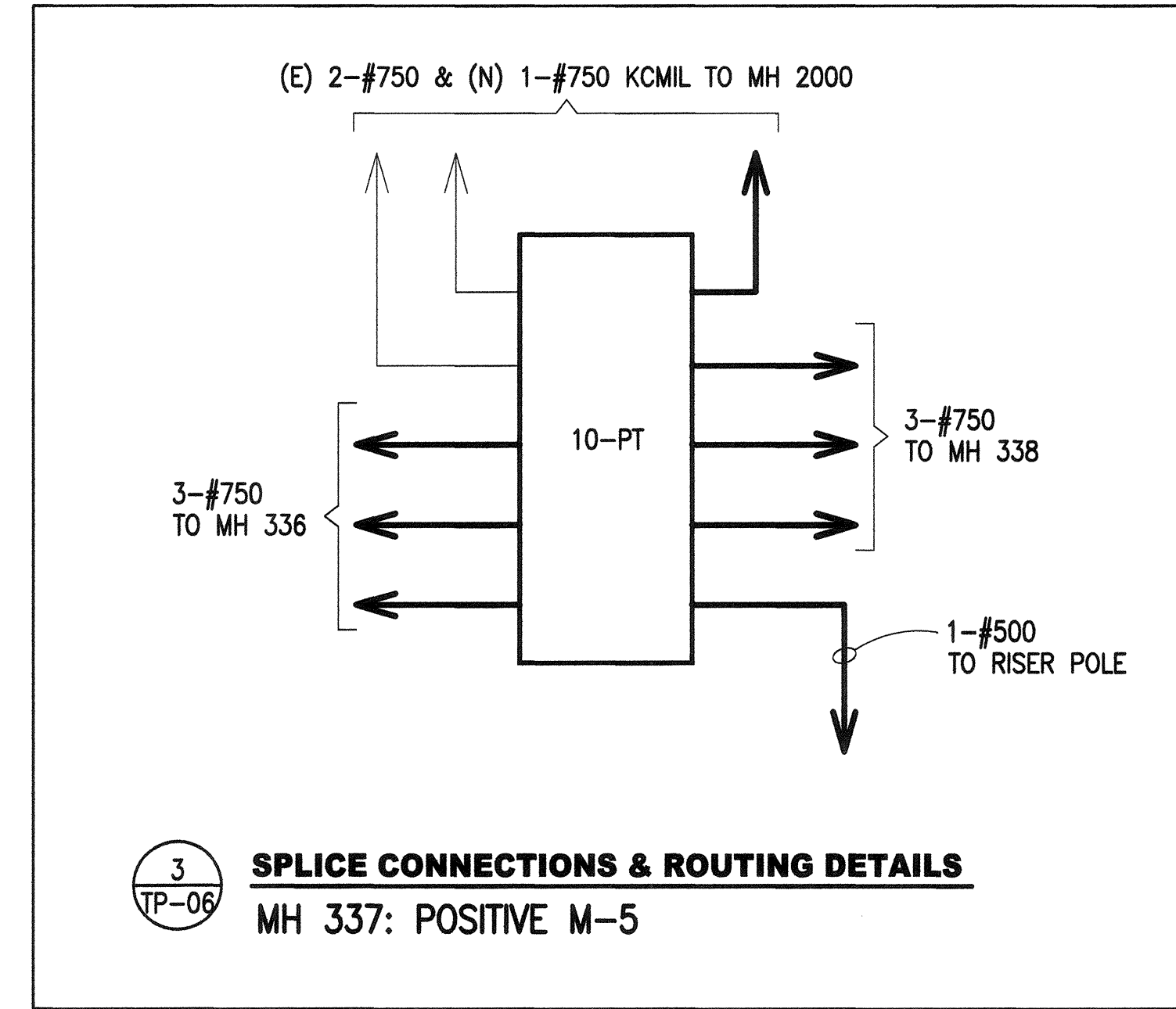
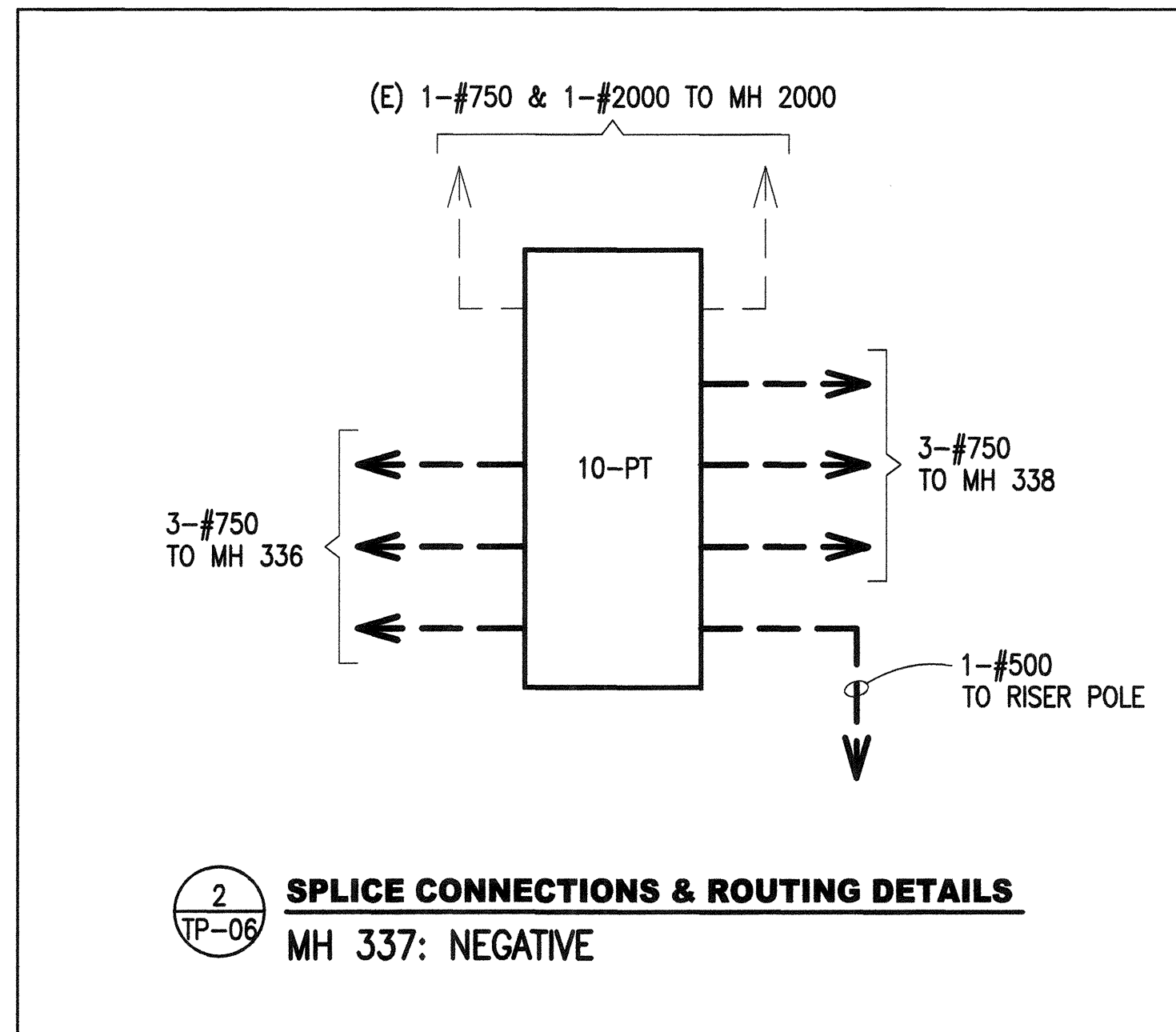
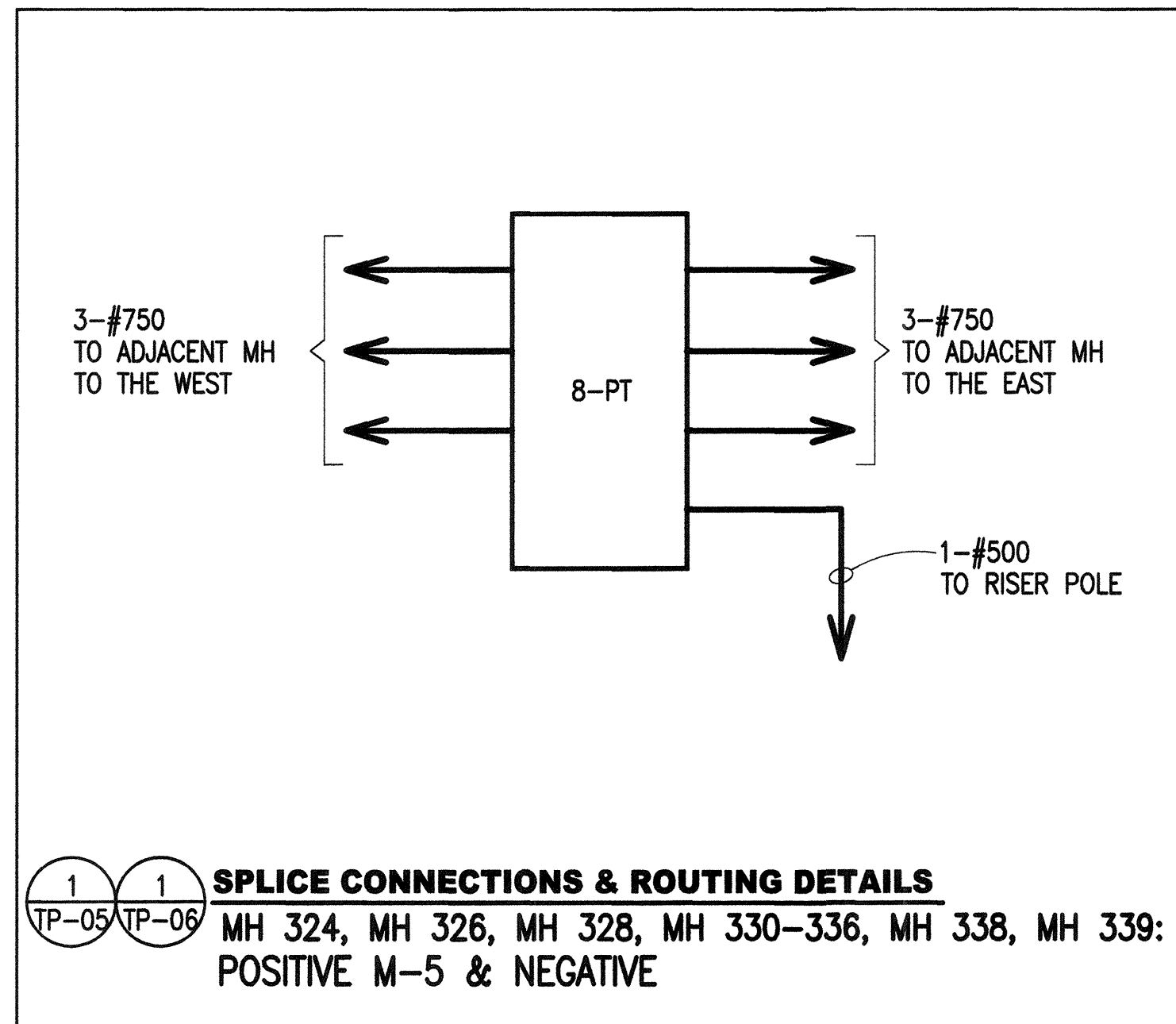
CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
 APPROVED: *Vincent J. Harris*
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT
 TRACTION POWER SYSTEM
M-5 DUCTBANK CABLE ASSIGNMENTS

1289
 CL-28979
 TP-07
 TP-14
 REVISION
 0

NOTES:

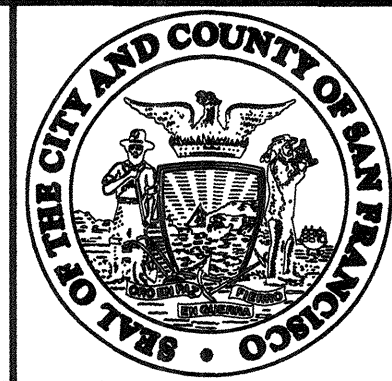
1. ALL FEEDER & RISER CABLES ARE NEW, UON.
2. SEE TP-05 & TP-06 FOR (N) FEEDER & RISER CABLE WORK.
3. SEE TP-07 FOR CABLE QTY AND ASSIGNMENTS IN DUCTBANK.



I:\CP16401.Von Ness BRT\2_CER\500_Design_Components\301_Drawings\21_Traction Power\Sheet Files\Traction Power\Sheet\5_CONN_100.dwg dcheuk Wed Jun 10 2015 10:37 am

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					

DESIGNED: *Stephen Green*
 DRAWN: *Stephen Green*
 CHECKED: *Edison Xi*
 REVIEWED: *Edison Xi*
 RECOMMENDED: *F. Mohammedi*
 APPROVED: *F. Mohammedi*
 DATE: MAY 13 2016

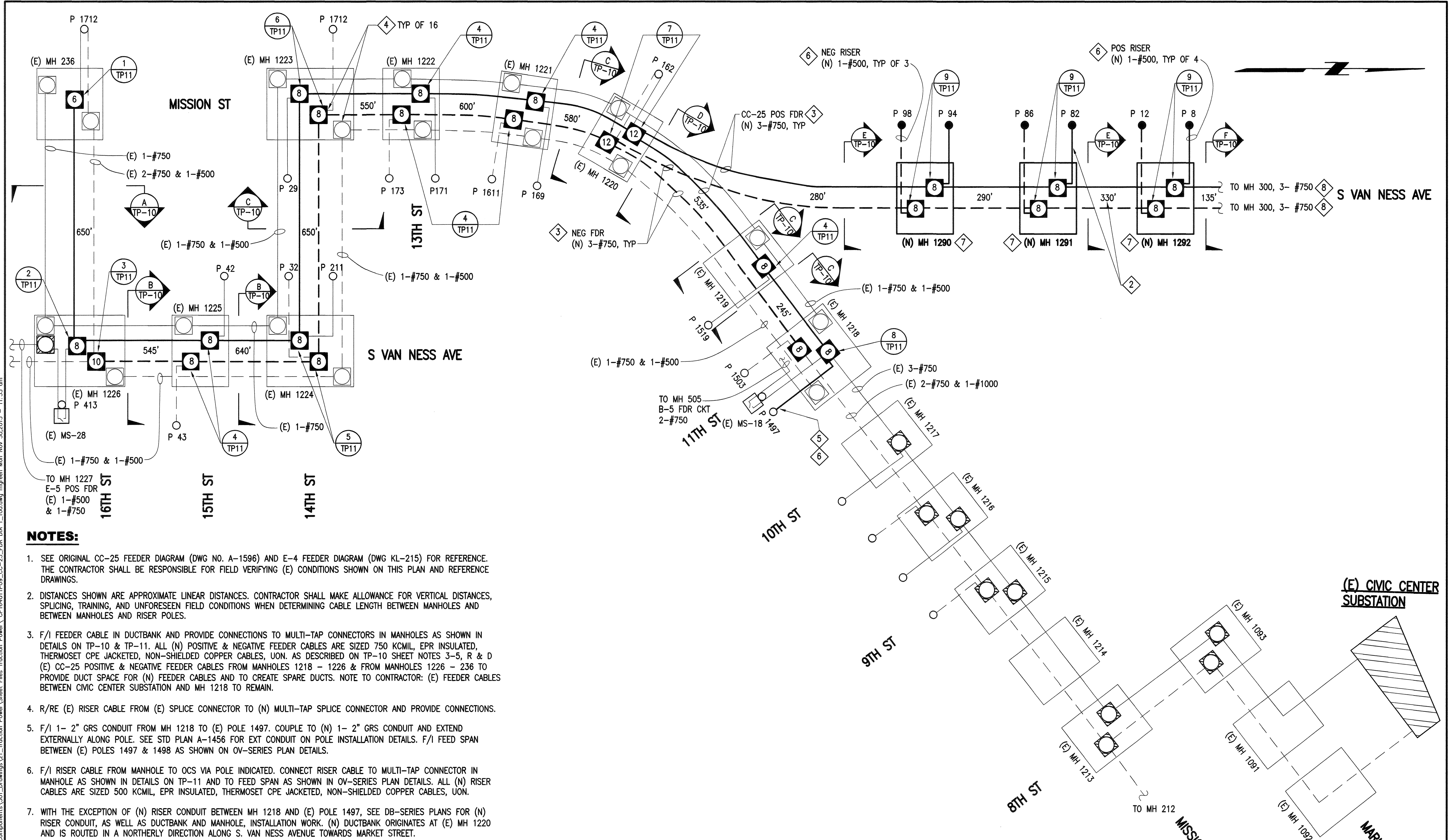


CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
 APPROVED: *Vincent Harris*
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT
 TRACTION POWER SYSTEM
M-5 CONNECTION DETAILS

1289	REVISION
CL-28980	
TP-08	0
TP-14	

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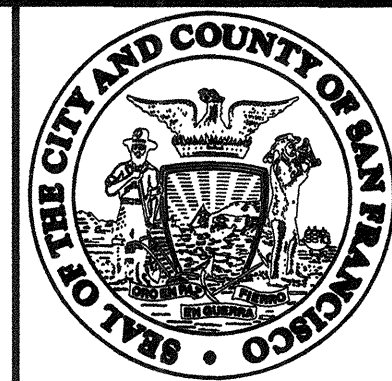
NOTES:

1. SEE ORIGINAL CC-25 FEEDER DIAGRAM (DWG NO. A-1596) AND E-4 FEEDER DIAGRAM (DWG KL-215) FOR REFERENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING (E) CONDITIONS SHOWN ON THIS PLAN AND REFERENCE DRAWINGS.
2. DISTANCES SHOWN ARE APPROXIMATE LINEAR DISTANCES. CONTRACTOR SHALL MAKE ALLOWANCE FOR VERTICAL DISTANCES, SPLICING, TRAINING, AND UNFORESEEN FIELD CONDITIONS WHEN DETERMINING CABLE LENGTH BETWEEN MANHOLES AND BETWEEN MANHOLES AND RISER POLES.
3. F/I FEEDER CABLE IN DUCTBANK AND PROVIDE CONNECTIONS TO MULTI-TAP CONNECTORS IN MANHOLES AS SHOWN IN DETAILS ON TP-10 & TP-11. ALL (N) POSITIVE & NEGATIVE FEEDER CABLES ARE SIZED 750 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON. AS DESCRIBED ON TP-10 SHEET NOTES 3-5, R & D (E) CC-25 POSITIVE & NEGATIVE FEEDER CABLES FROM MANHOLES 1218 - 1226 & FROM MANHOLES 1226 - 236 TO PROVIDE DUCT SPACE FOR (N) FEEDER CABLES AND TO CREATE SPARE DUCTS. NOTE TO CONTRACTOR: (E) FEEDER CABLES BETWEEN CIVIC CENTER SUBSTATION AND MH 1218 TO REMAIN.
4. R/RE (E) RISER CABLE FROM (E) SPLICE CONNECTOR TO (N) MULTI-TAP SPLICE CONNECTOR AND PROVIDE CONNECTIONS.
5. F/I 1- 2" GRS CONDUIT FROM MH 1218 TO (E) POLE 1497. COUPLE TO (N) 1- 2" GRS CONDUIT AND EXTEND EXTERNALLY ALONG POLE. SEE STD PLAN A-1456 FOR EXT CONDUIT ON POLE INSTALLATION DETAILS. F/I FEED SPAN BETWEEN (E) POLES 1497 & 1498 AS SHOWN ON OV-SERIES PLAN DETAILS.
6. F/I RISER CABLE FROM MANHOLE TO OCS VIA POLE INDICATED. CONNECT RISER CABLE TO MULTI-TAP CONNECTOR IN MANHOLE AS SHOWN IN DETAILS ON TP-11 AND TO FEED SPAN AS SHOWN IN OV-SERIES PLAN DETAILS. ALL (N) RISER CABLES ARE SIZED 500 KCMIL, EPR INSULATED, THERMOSET CPE JACKETED, NON-SHIELDED COPPER CABLES, UON.
7. WITH THE EXCEPTION OF (N) RISER CONDUIT BETWEEN MH 1218 AND (E) POLE 1497, SEE DB-SERIES PLANS FOR (N) RISER CONDUIT, AS WELL AS DUCTBANK AND MANHOLE, INSTALLATION WORK. (N) DUCTBANK ORIGINATES AT (E) MH 1220 AND IS ROUTED IN A NORTHERLY DIRECTION ALONG S. VAN NESS AVENUE TOWARDS MARKET STREET.
8. CC-25 FDR CKT TIES IN WITH F-21 FDR CKT THROUGH (N) SECTIONALIZING SWITCH SS-22. SEE TP-01 FOR SECTIONALIZING SWITCH INSTALLATION WORK. SEE DB-SERIES PLANS FOR DUCTBANK AND FEEDER CONDUIT INSTALLATION WORK CONNECTING MANHOLES MH 1292 AND MH 300 TO INCLUDE CONDUIT INSTALLATION WORK UNDER TRACKS ACROSS MARKET ST.

CC-25: (N) UNDERGROUND FEEDER & RISER DIAGRAM 1
NTS

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					

DESIGNED <i>[Signature]</i>
DRAWN <i>[Signature]</i>
CHECKED <i>[Signature]</i>
REVIEWED <i>[Signature]</i>
RECOMMENDED <i>[Signature]</i>
APPROVED <i>[Signature]</i>
DATE MAY 13 2016



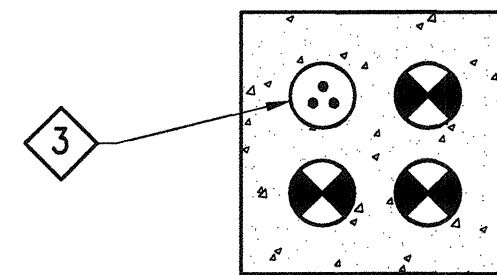
CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
APPROVED
[Signature]
for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT
TRACTION POWER SYSTEM
CC-25 FEEDER CIRCUIT DIAGRAM

1289
CL-28981
TP-09
TP-14
REVISION 0

NOTES:

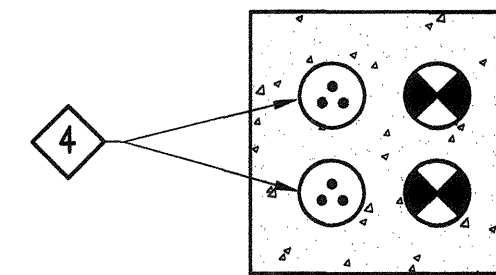
- SEE TP-09 FOR (N) CC-25 FEEDER & RISER CABLE WORK.
- SEE TP-11 FOR (N) CC-25 CABLE CONNECTION & ROUTING DETAILS.
- R & D 1- #750 CC-25 POSITIVE FEEDER CABLE AND F/I 3- #750 POSITIVE FEEDER CABLES IN PLACE OF FROM MH 236- MH 1226 IN (E) DUCT INDICATED.
- R & D 1- #750 POSITIVE AND 1- #500 & 1- #750 NEGATIVE FEEDER CABLES FROM (E) DUCTS INDICATED AND F/I 3- #750 FOR BOTH POSITIVE & NEGATIVE FEEDER CABLES IN PLACE OF FROM MH 1224- MH 1226 IN (E) DUCTS INDICATED.
- R & D 1- #500 & 1- #750 FOR BOTH POSITIVE & NEGATIVE FEEDER CABLES FROM (E) DUCTS INDICATED. LEAVE DUCTS EMPTY AS SPARES FROM MH 1218- MH 1224.
- SEE DB-SERIES PLANS FOR (N) DUCTBANK INSTALLATION WORK ALONG S. VAN NESS AVE AND CONDUIT INSTALLATION & CONFIGURATION DETAILS ACROSS MARKET ST BETWEEN MH'S 1292 AND 300.



CC-25; POS (A,B,C) (N) 3-#750 KCML	OCCUPIED
OCCUPIED	OCCUPIED

4-4"

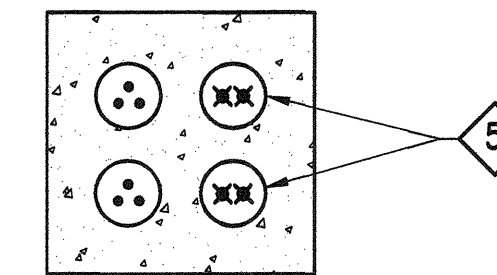
A SECTION
TP-09 MH 236 TO MH 1226



CC-25; POS (A,B,C) (N) 3-#750 KCML	OCCUPIED
NEGATIVE (N) 3-#750 KCML	OCCUPIED

4-4"

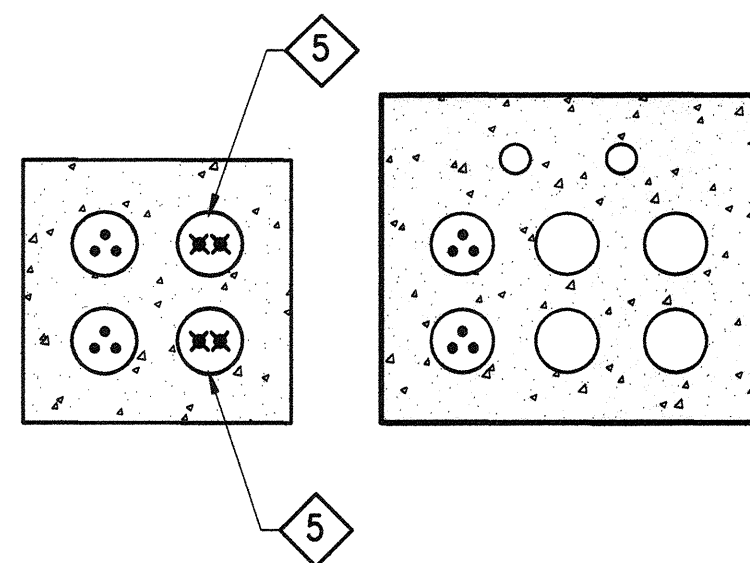
B SECTION
TP-09 MH 1224 TO MH 1226



CC-25; POS (A,B,C) (N) 3-#750 KCML	R & D: CC-25; POS (D,E) (E) 1-#750 KCML & 1- #500 KCML
NEGATIVE (N) 3-#750 KCML	R & D: NEGATIVE (E) 1-#750 KCML & 1- #500 KCML

4-4"

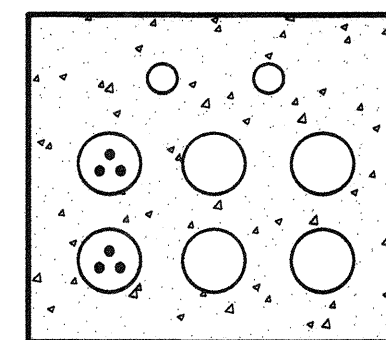
C SECTION
TP-09 MH 1218 TO MH 1224



CC-25; POS (A,B,C) (N) 3-#750 KCML	R & D: CC-25; POS (D,E) (E) 1-#750 KCML & 1- #500 KCML	SPARE	SPARE
NEGATIVE (N) 3-#750 KCML	R & D: NEGATIVE (E) 1-#750 KCML & 1- #500 KCML	SPARE	SPARE

4-4" AND 2-2" & 6-4"

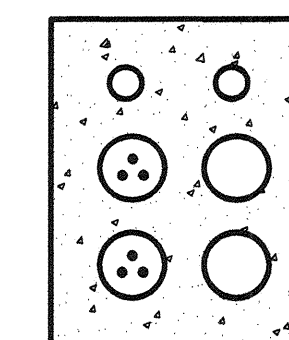
D SECTION
TP-09 MH 1220 TO MH 1219/1290



CC-25; POS (A,B,C) (N) 3-#750 KCML	SPARE	SPARE
NEGATIVE (N) 3-#750 KCML	SPARE	SPARE

2-2" & 6-4"

E SECTION
TP-09 MH 1290 TO MH 1292



CC-25; POS (A,B,C) (N) 3-#750 KCML	SPARE
NEGATIVE (N) 3-#750 KCML	SPARE

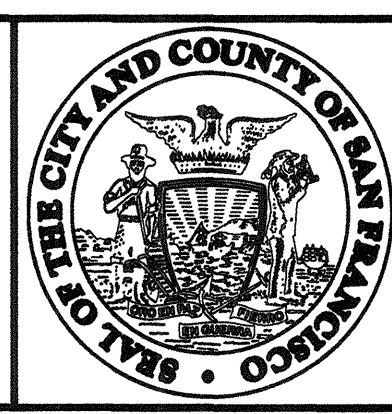
2-2" & 4-4"

F SECTION
TP-09 MH 1292 TO MH 300

I: CP1640.1 Van Ness BRT V2_CER 3500_Design Components 301_Drawings 21_Traction Power Sheet Files Traction Power CP16401P10_CC-25_CROSS SEC_100.dwg dchrauk Wed Jun 10 2015 10:38 am

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED

DESIGNED: *Maghan Green*
 DRAWN: *Maghan Green*
 CHECKED: *Steven Xi*
 REVIEWED: *FOES*
 RECOMMENDED: *Frederick*
 APPROVED: *F. Mahan*
 DATE: MAY 13 2016

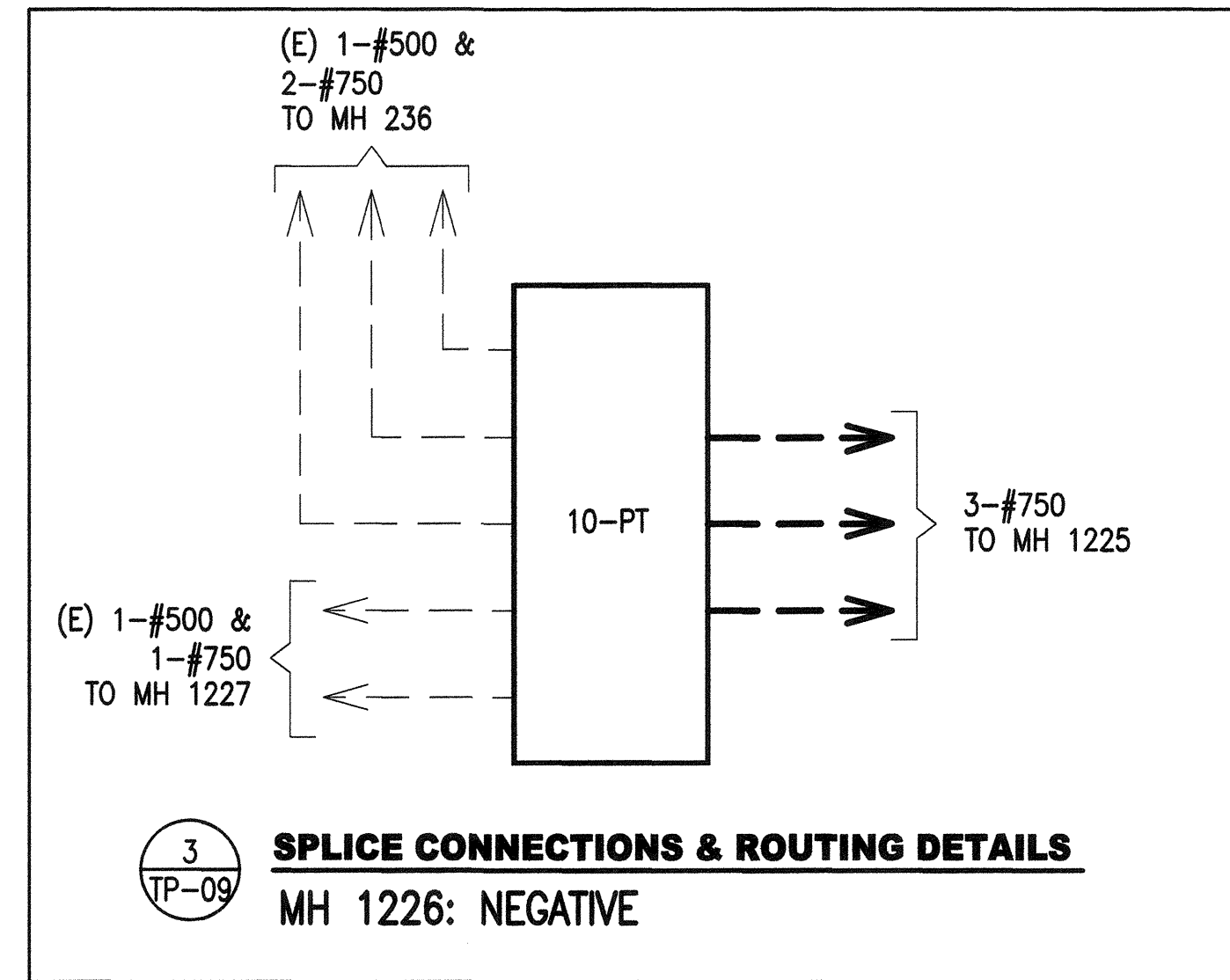
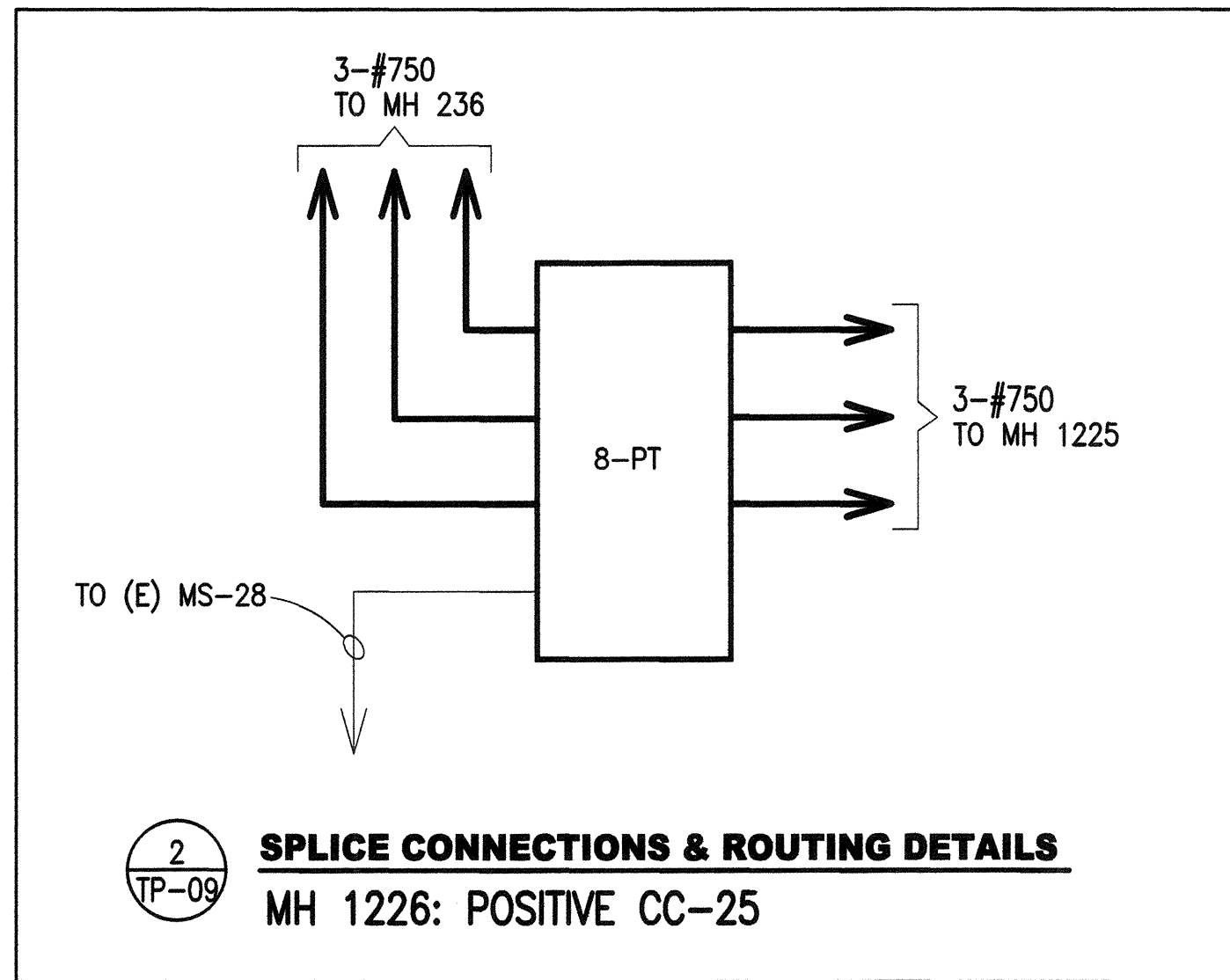
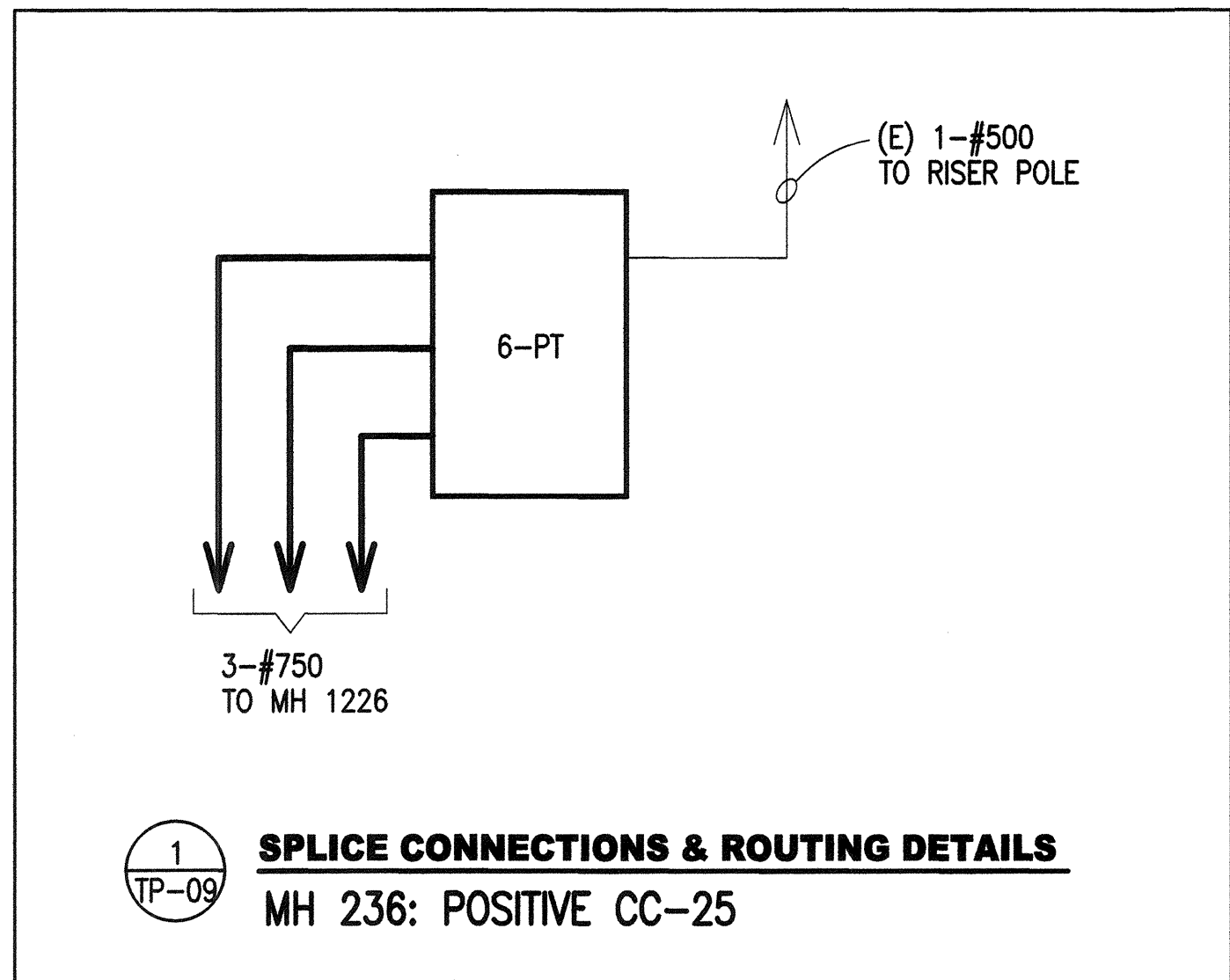


CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
 APPROVED: *Lucretia Harris*
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT
 TRACTION POWER SYSTEM
 CC-25 DUCTBANK CABLE ASSIGNMENTS

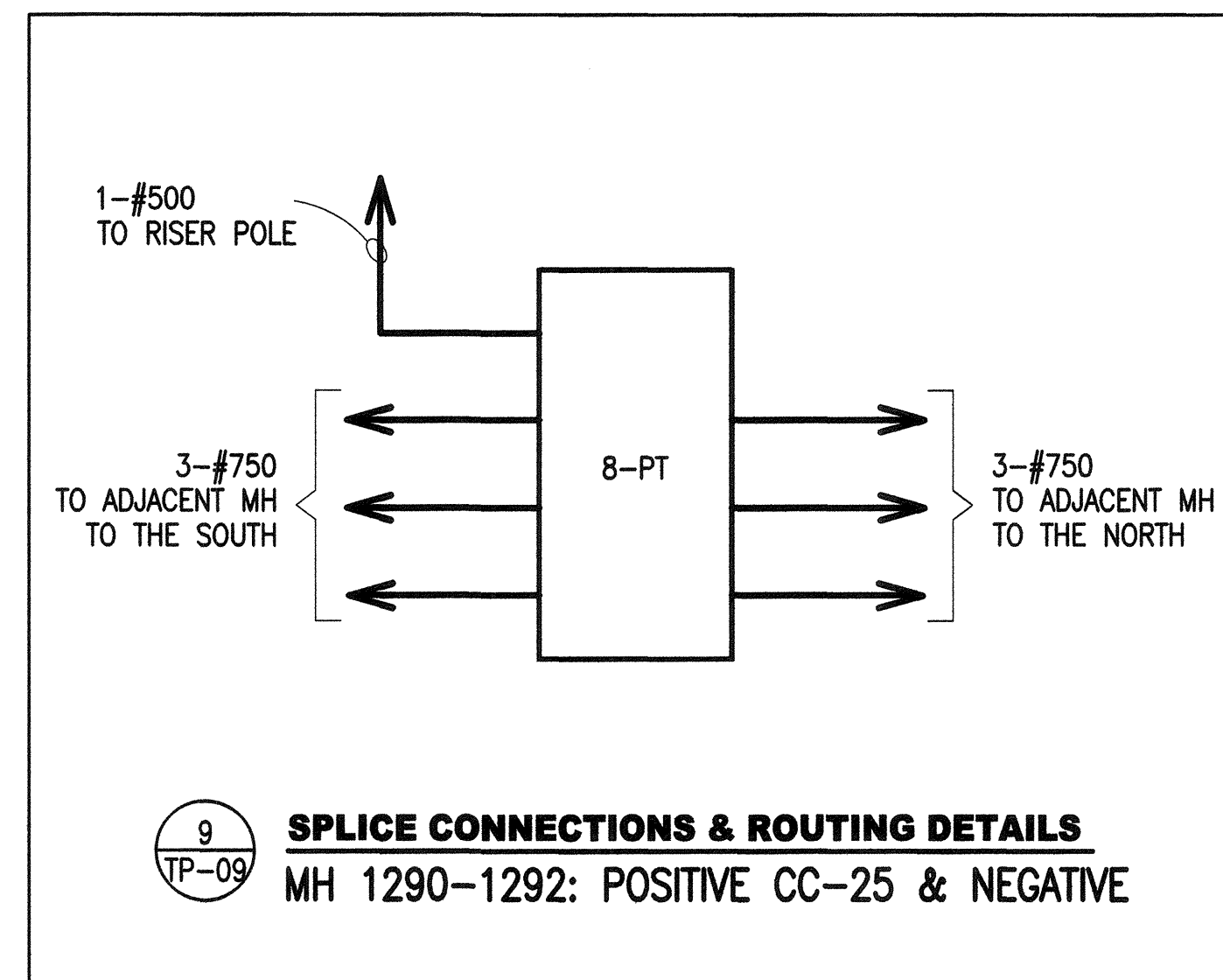
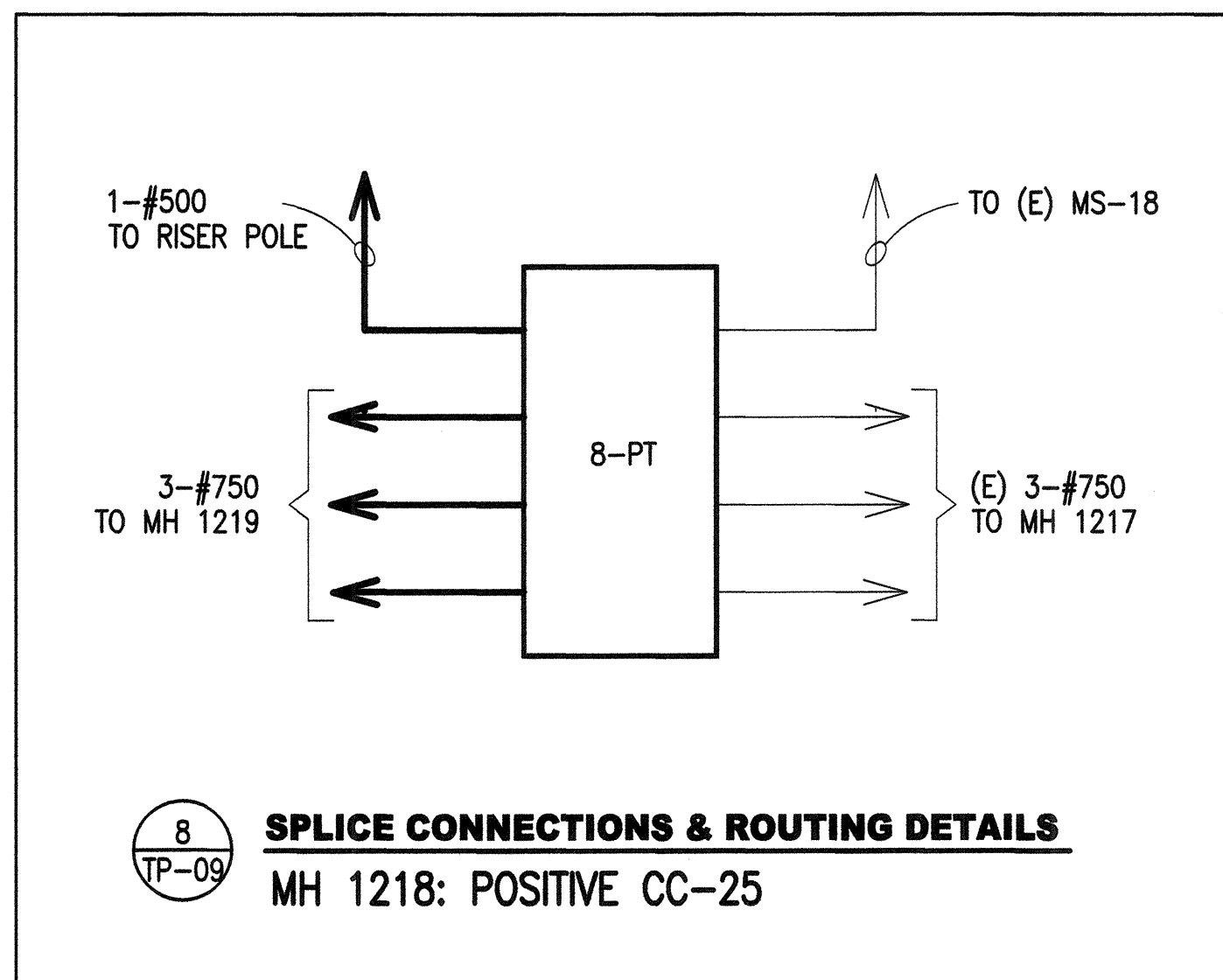
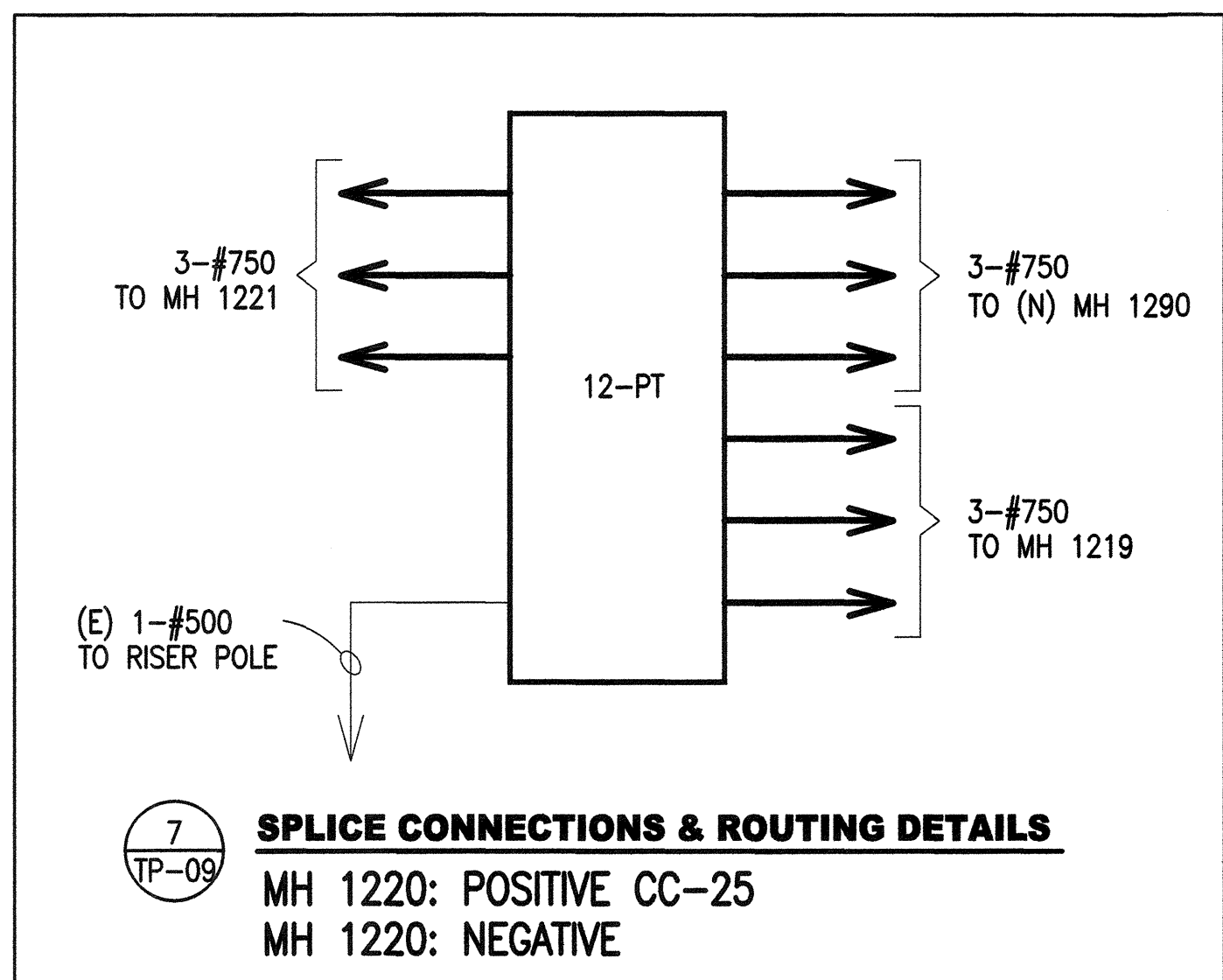
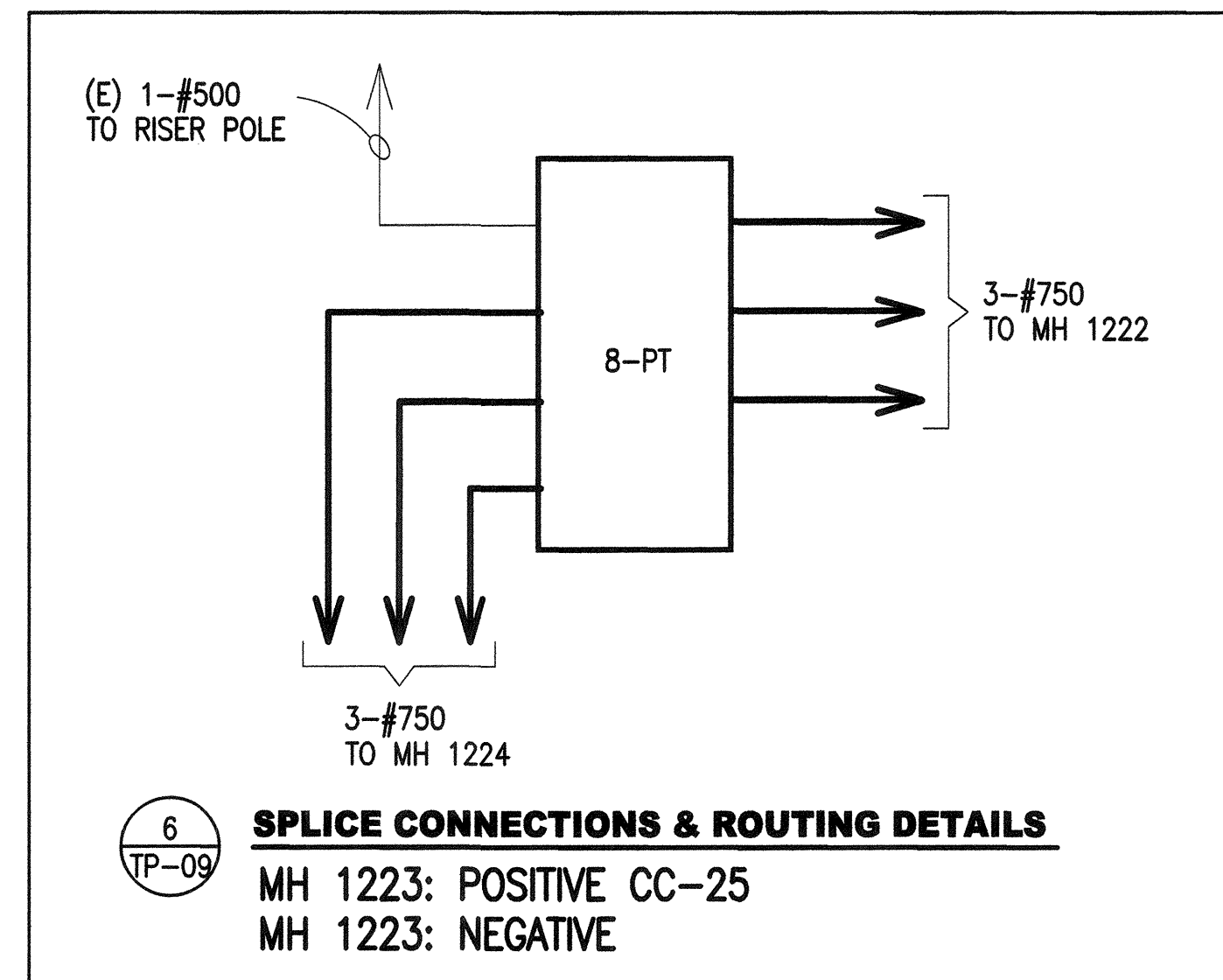
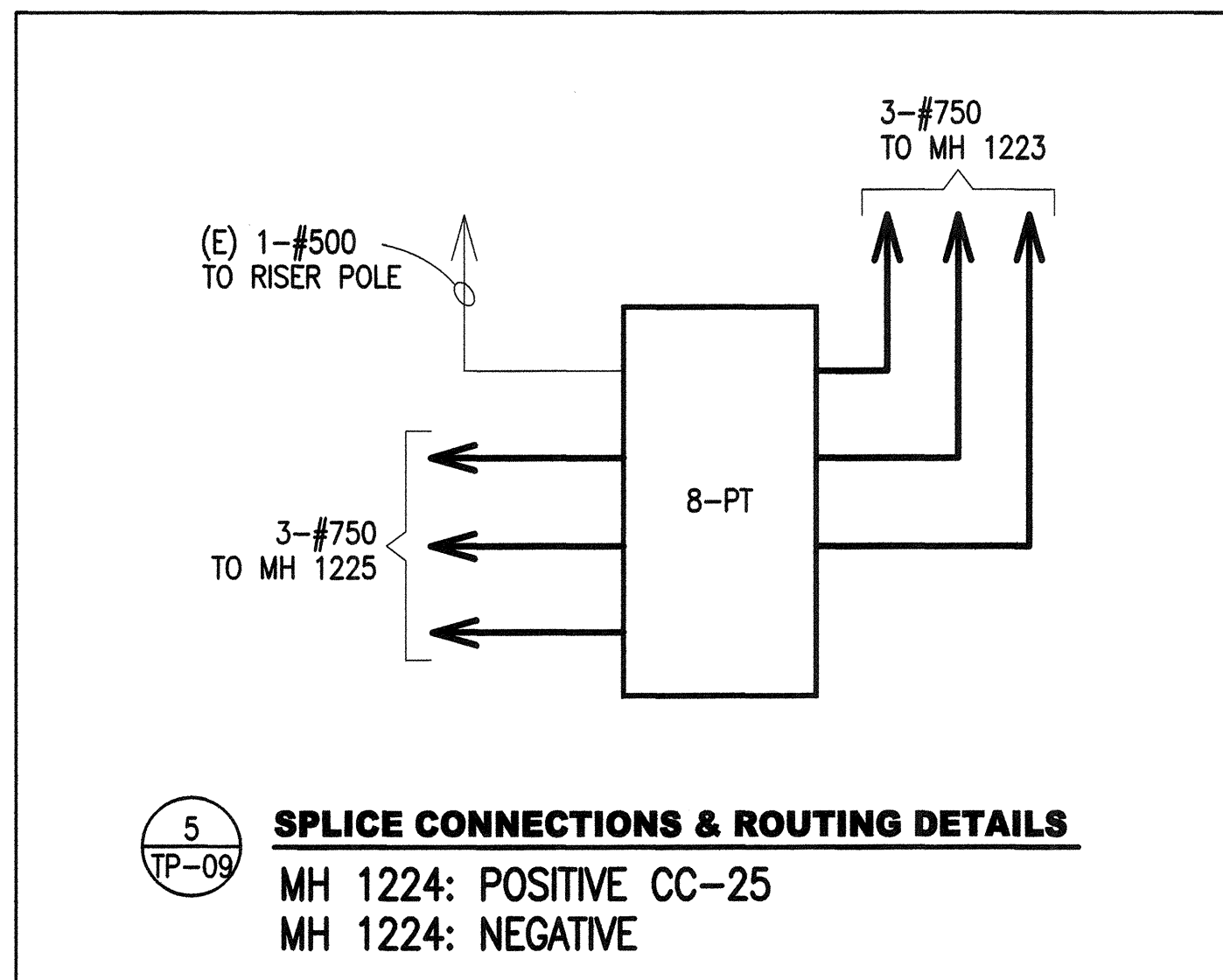
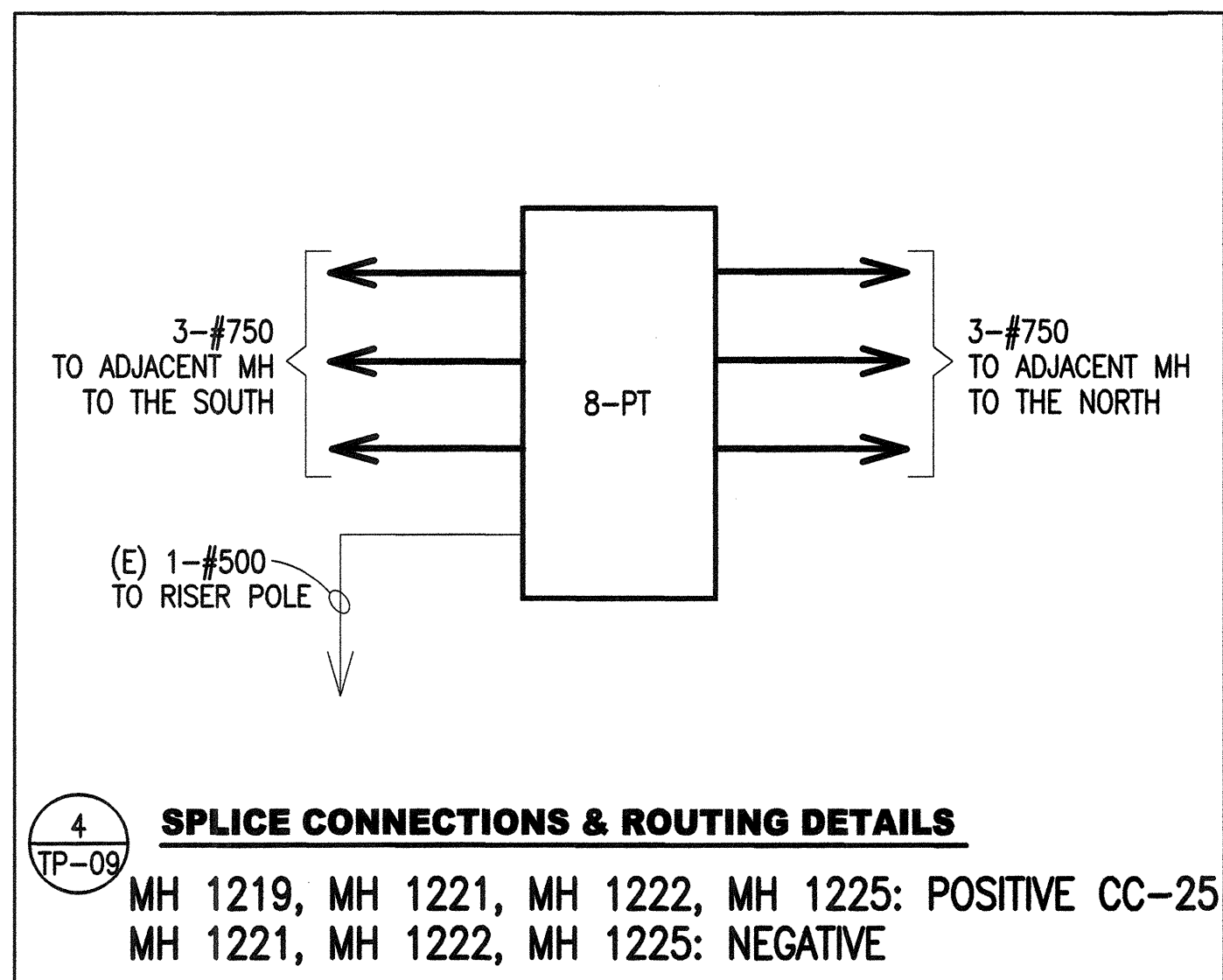
1289
CL-28982
TP-10
TP-14
REVISION 0

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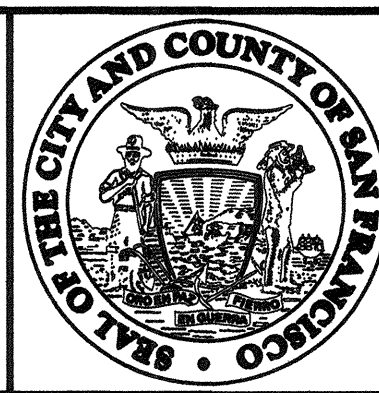
NOTES:

1. ALL FEEDER & RISER CABLES ARE NEW, UON.
2. SEE TP-09 FOR (N) FEEDER & RISER CABLE WORK.
3. SEE TP-10 FOR CABLE QTY AND ASSIGNMENTS IN DUCTBANK.



NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					

DESIGNED: *Hydram Green*
 DRAWN: *Hydram Green*
 CHECKED: *Hydram Green*
 REVIEWED: *Hydram Green*
 RECOMMENDED: *Hydram Green*
 APPROVED: *F. Mohamoud*
 DATE: MAY 13 2016



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED
Lucinda Harrel
 for the DIRECTOR OF TRANSPORTATION

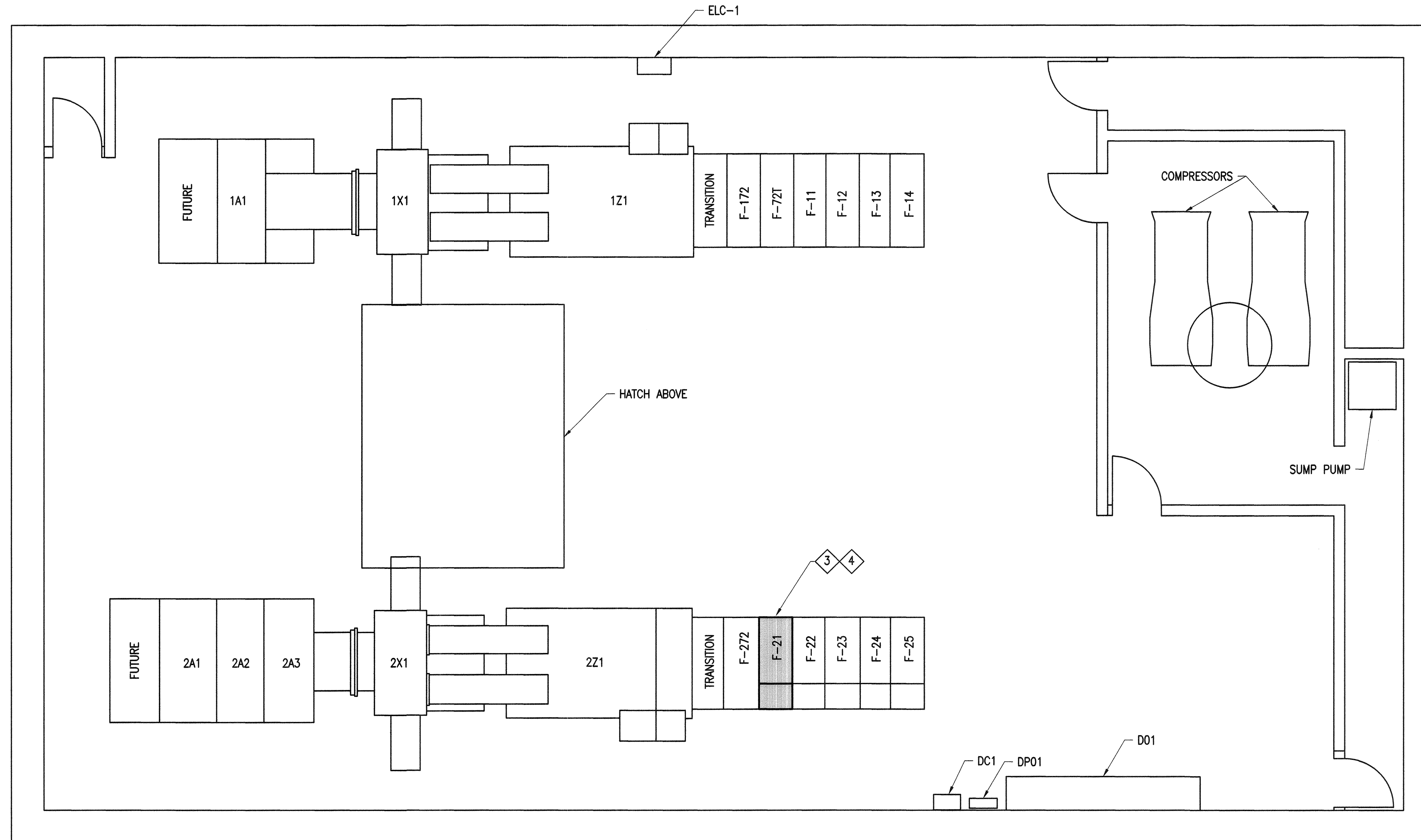
MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT

**TRACTION POWER SYSTEM
 CC-25 CONNECTION DETAILS**

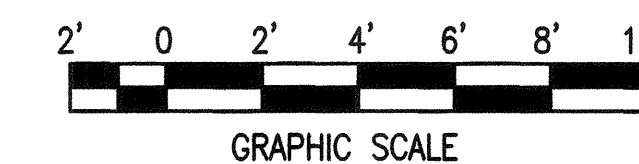
1289	
CL-28983	
TP-11	REVISION
TP-14	0

NOTES:

1. FILLMORE TRACTION POWER SUBSTATION IS LOCATED AT 1825 FILLMORE STREET IN SUB-GROUND FLOOR OF (E) FACILITY. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING (E) CONDITIONS SHOWN ON THIS PLAN AND ANY REFERENCE DRAWINGS.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM TWO (2) WEEK NOTICE FOR SCHEDULING OF WORK AT FILLMORE SUBSTATION TO SFMTA POWER CONTROL CENTER (PCC) THROUGH THE ENGINEER. THE CONTRACTOR SHALL PERFORM ALL WORK DONE AT FILLMORE SUBSTATION UNDER THE DIRECTION AND SUPERVISION OF SFMTA POWER CONTROL CENTER PERSONNEL.
3. F/I MYERS CONTROLLED POWER TYPE FBK-H, 4000A DC CIRCUIT BREAKER IN PLACE OF (E) CONTROLLED POWER CORPORATION TYPE FBK-H, 2500A DC CIRCUIT BREAKER IN (E) F-21 CUBICLE. (E) CUBICLE AND CONTROL CIRCUITRY TO REMAIN.
4. REPLACE (E) 2500A RATED WITH (N) 4000A RATED DEVICES & COMPONENTS (TO INCLUDE FEEDER BREAKER SHUNT, METERS & TRANSDUCERS) TO MATCH CAPACITY OF (N) 4000A RATED F-21 DC CIRCUIT BREAKER.



FILLMORE TRACTION POWER SUBSTATION EQUIPMENT LAYOUT 1



I:\CPTB401_Van Ness BRT V_CEP_500_Design Components\501_Drawings\21_Traction Power\Sheet Files Traction Power\CPTB401TP12.F21 FDR BKR_100.dwg mgreen Thu Jul 02, 2015 - 3:22 pm

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					

DESIGNED: *Meghan Green*
 DRAWN: *Meghan Green*
 CHECKED: *Richard Xi*
 REVIEWED: *[Signature]*
 RECOMMENDED: *[Signature]*
 APPROVED: *F. Madhavan*
 DATE: **MAY 13 2016**



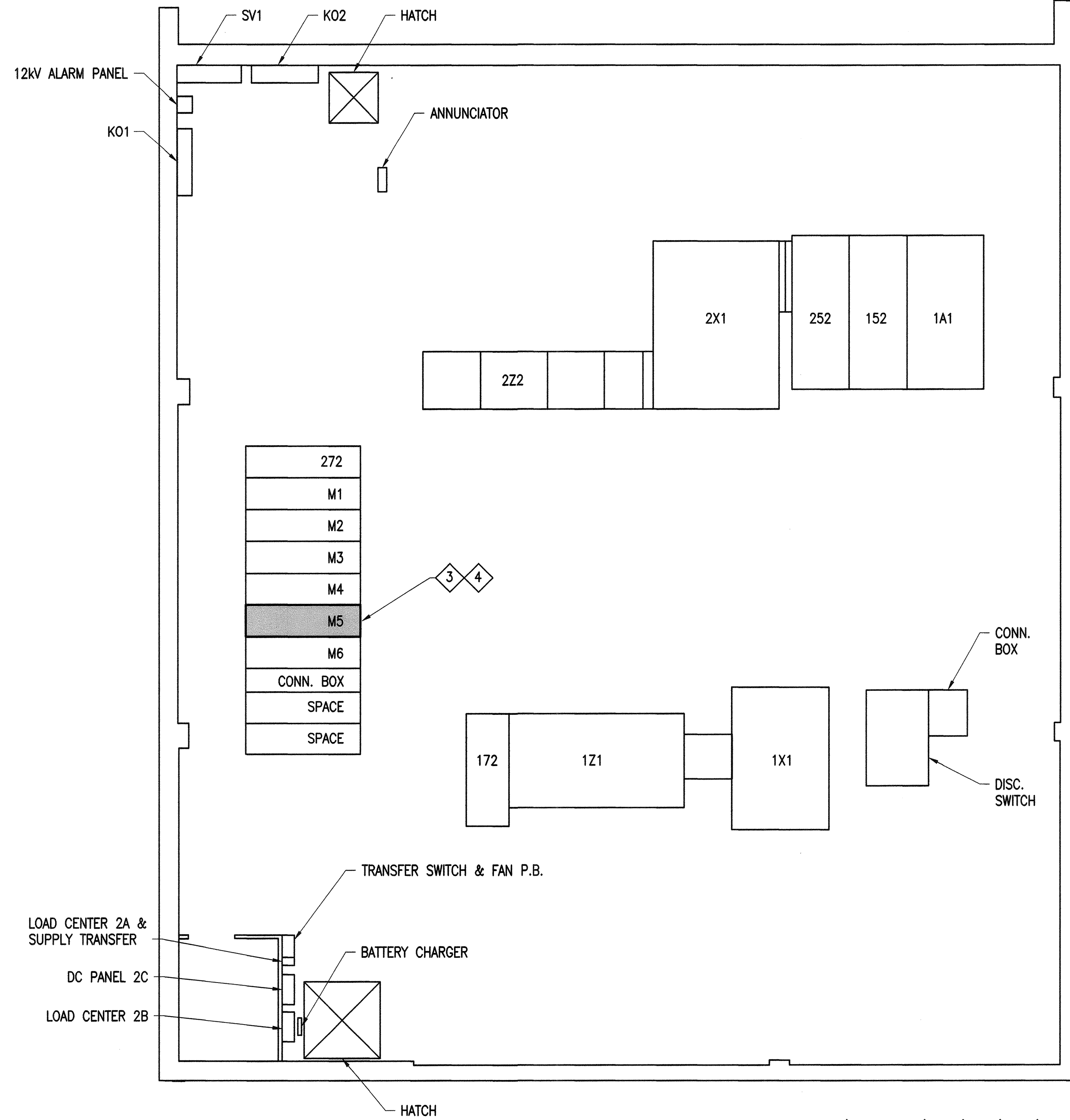
CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
 APPROVED: *Vincent Harris*
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT
 TRACTION POWER SYSTEM
F-21 DC FEEDER BREAKER UPGRADE

1289	
CL-28984	
TP-12	REVISION
TP-14	0

NOTES:

- MARINA TRACTION POWER SUBSTATION IS LOCATED AT 1575 NORTH POINT STREET ON GROUND FLOOR OF (E) FACILITY. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING (E) CONDITIONS SHOWN ON THIS PLAN AND ANY REFERENCE DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM TWO (2) WEEK NOTICE FOR SCHEDULING OF WORK AT MARINA SUBSTATION, INCLUDING RECEIPT OF CITY-FURNISHED WHIPP & BOURNE MODEL MM74 DC CIRCUIT BREAKER, TO SFMTA POWER CONTROL CENTER (PCC) THROUGH THE ENGINEER. THE CONTRACTOR SHALL PERFORM ALL WORK DONE AT MARINA SUBSTATION UNDER THE DIRECTION AND SUPERVISION OF SFMTA POWER CONTROL CENTER PERSONNEL.
- INSTALL CITY-FURNISHED REFURBISHED WHIPP & BOURNE MODEL MM74, 4000A DC CIRCUIT BREAKER IN PLACE OF (E) WHIPP & BOURNE MODEL MM74, 2500A DC CIRCUIT BREAKER IN (E) M-5 CUBICLE. (E) CUBICLE AND CONTROL CIRCUITRY TO REMAIN.
- REPLACE (E) 2500A RATED WITH (N) 4000A RATED DEVICES & COMPONENTS (TO INCLUDE FEEDER BREAKER SHUNT, METERS & TRANSDUCERS) TO MATCH CAPACITY OF (N) 4000A RATED M-5 DC CIRCUIT BREAKER.

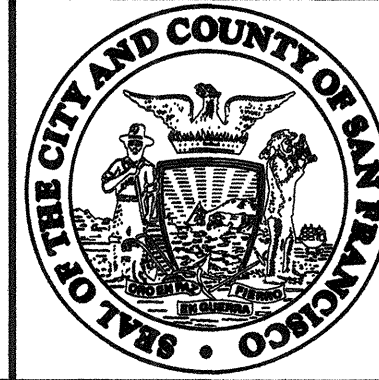


MARINA TRACTION POWER SUBSTATION EQUIPMENT LAYOUT 1

I:\PTB401_Van Ness BRT_V_CER\500_Design Components\501_Drawings\21_Traction Power\Sheet Files Traction Power\CPTB401TP13_MS_FDR_BKR_100.dwg mgreen Thu Jul 02 2015 - 3:23 pm

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					

DESIGNED: *Stephen Green*
 DRAWN: *Stephen Green*
 CHECKED: *Raven Xi*
 REVIEWED: *[Signature]*
 RECOMMENDED: *[Signature]*
 APPROVED: *[Signature]*
 DATE: **MAY 13 2016**



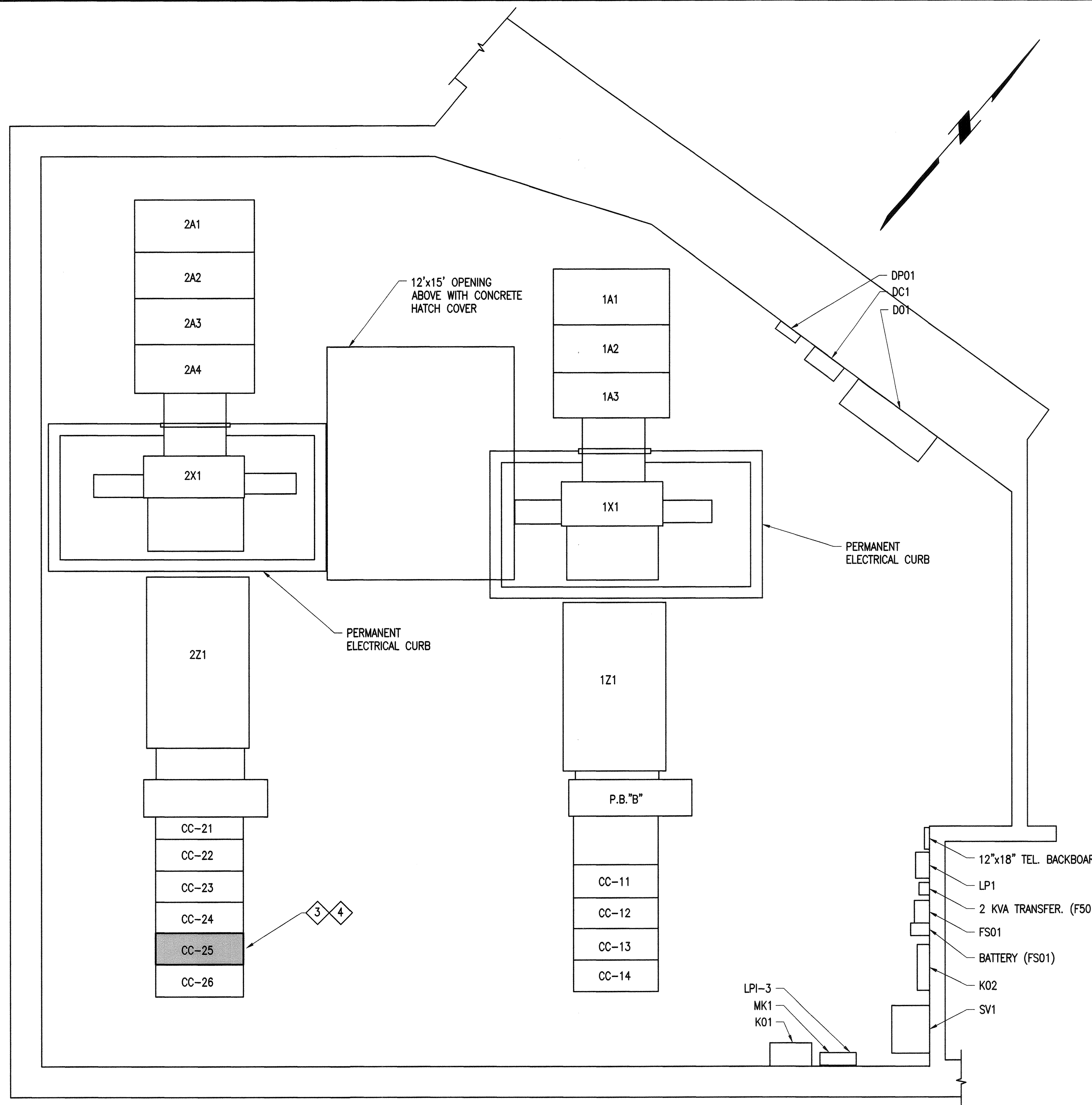
CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED
[Signature]
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM		1289
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT		CL-28985
TRACTION POWER SYSTEM M-5 DC FEEDER BREAKER UPGRADE		TP-13 TP-14
		REVISION 0

NOTES:

1. CIVIC CENTER TRACTION POWER SUBSTATION IS LOCATED AT 1150 MARKET STREET AT UN PLAZA IN SUB-GROUND FLOOR OF (E) CIVIC CENTER STATION FACILITY. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING (E) CONDITIONS SHOWN ON THIS PLAN AND ANY REFERENCE DRAWINGS.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM TWO (2) WEEK NOTICE FOR SCHEDULING OF WORK AT CIVIC CENTER SUBSTATION TO SFMTA POWER CONTROL CENTER (PCC) THROUGH THE ENGINEER. THE CONTRACTOR SHALL PERFORM ALL WORK DONE AT CIVIC CENTER SUBSTATION UNDER THE DIRECTION AND SUPERVISION OF SFMTA POWER CONTROL CENTER PERSONNEL.
3. F/I MYERS CONTROLLED POWER TYPE FBK-H 4000A DC CIRCUIT BREAKER IN PLACE OF (E) CONTROLLED POWER CORPORATION TYPE FBK-H, 2500A DC CIRCUIT BREAKER IN (E) CC-25 CUBICLE. (E) CUBICLE AND CONTROL CIRCUITRY TO REMAIN.
4. REPLACE (E) 2500A RATED WITH (N) 4000A RATED DEVICES & COMPONENTS (TO INCLUDE FEEDER BREAKER SHUNT, METERS & TRANSDUCERS) TO MATCH CAPACITY OF (N) 4000A RATED CC-25 DC CIRCUIT BREAKER.

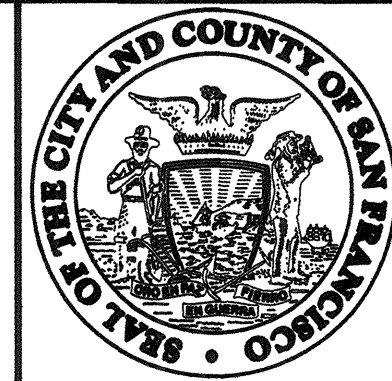


CIVIC CENTER TRACTION POWER SUBSTATION EQUIPMENT LAYOUT 1

I:\CPTB40.1_Van Ness BRT V2_CER\500_Design Components\501_Drawings\21_Traction Power\Sheet Files Traction Power\CPTB401TP14_CC25 FDR BKR_100.dwg mgreen Thu Jul 02 2015 - 3:24 pm

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					

DESIGNED: *Stephen Chen*
 DRAWN: *Stephen Chen*
 CHECKED: *Stephen Xi*
 REVIEWED: *Stephen Xi*
 RECOMMENDED: *Stephen Xi*
 APPROVED: *F. Mohamoud*
 DATE: **MAY 13 2016**



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
 APPROVED: *Lucy Han*
 for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM		1289
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT		CL-28986
TRACTION POWER SYSTEM CC-25 DC FEEDER BREAKER UPGRADE		TP-14
		REVISION 0