

# KANSAS CITY STREETCAR LOOP

## ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL JULY 2012

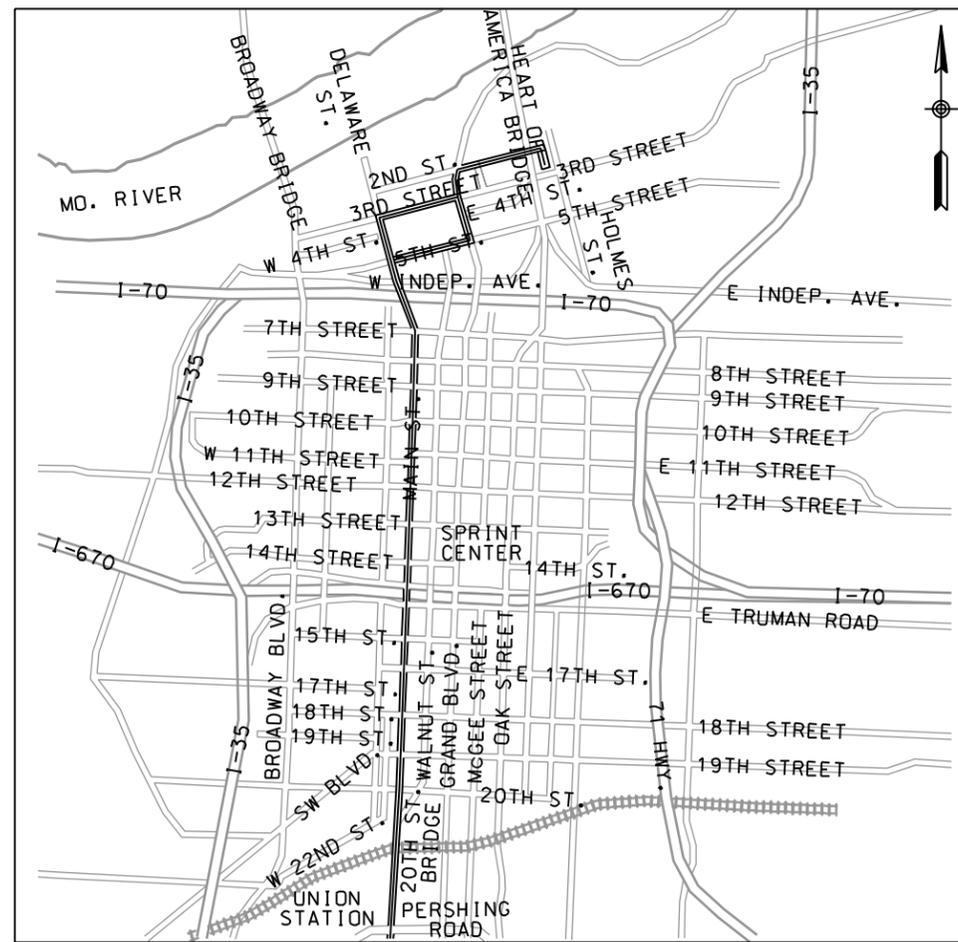
CITY OF FOUNTAINS  
HEART OF THE NATION



KANSAS CITY  
MISSOURI



HDR Engineering, Inc.



SHEET NO. G1	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. G1
				DRAWN BY	DIV. ENGINEER			
				CHECKED BY				
				APPROVED BY				
	SHEET FILE: Cover.dgn			PLOT DATE: 8/3/2012 1:07:26 PM				
PLOT DATE: 8/3/2012 1:07:26 PM BY: dbernard								

**STREETCAR LOOP**

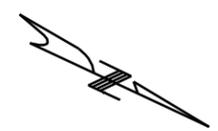
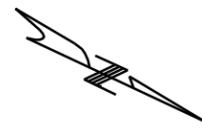
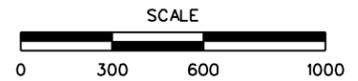
SHEET NO.	DRAWING NAME	DRAWING TITLE	STATION LOCATION
<b>GENERAL DRAWINGS</b>			
G1	COVER	COVER SHEET	
G2	INDEX_01	INDEX OF SHEET 1 OF 2	
G3	INDEX_02	INDEX OF SHEETS 2 OF 2	
<b>TRACKWAY DRAWINGS</b>			
K1	KEYMAP	SHEET INDEX LAYOUT PLAN	
<b>ALIGNMENT PLANS</b>			
K2	ALIGN_TABLE_01	ALIGNMENT CURVE DATA	
K3	ALIGN_01	ALIGNMENT PLAN PERSHING ROAD TO 18TH STREET	STA. 100+00 TO 130+00
K4	ALIGN_02	ALIGNMENT PLAN 17TH STREET TO 12TH STREET	STA. 130+00 TO 160+00
K5	ALIGN_03	ALIGNMENT PLAN 11TH STREET TO INDEPENDENCE AVENUE	STA. 160+00 TO 186+00
K6	ALIGN_04	ALIGNMENT PLAN INDEPENDENCE AVENUE THROUGH LOOP	STA. 186+00 TO 200+29
<b>TRACK PLAN AND PROFILE</b>			
C1	PLANPROFILE_01	NORTHBOUND TRACK PLAN AND PROFILE PERSHING ROAD	STA. 100+00 TO 101+50
C2	PLANPROFILE_02	NORTHBOUND TRACK PLAN AND PROFILE UNION STATION	STA. 101+50 TO 105+50
C3	PLANPROFILE_03	NORTHBOUND TRACK PLAN AND PROFILE MAIN STREET BRIDGE	STA. 105+50 TO 109+50
C4	PLANPROFILE_04	NORTHBOUND TRACK PLAN AND PROFILE MAIN STREET BRIDGE/MAIN-WALNUT VIADUCT	STA. 109+50 TO 113+50
C5	PLANPROFILE_05	NORTHBOUND TRACK PLAN AND PROFILE MAIN-WALNUT VIADUCT	STA. 113+50 TO 117+50
C6	PLANPROFILE_06	NORTHBOUND TRACK PLAN AND PROFILE 20TH STREET	STA. 117+50 TO 121+50
C7	PLANPROFILE_07	NORTHBOUND TRACK PLAN AND PROFILE 19TH STREET	STA. 121+50 TO 125+50
C8	PLANPROFILE_08	NORTHBOUND TRACK PLAN AND PROFILE 18TH STREET	STA. 125+50 TO 129+50
C9	PLANPROFILE_09	NORTHBOUND TRACK PLAN AND PROFILE 17TH STREET	STA. 129+50 TO 133+50
C10	PLANPROFILE_10	NORTHBOUND TRACK PLAN AND PROFILE 16TH STREET	STA. 133+50 TO 137+50
C11	PLANPROFILE_11	NORTHBOUND TRACK PLAN AND PROFILE 16TH STREET	STA. 137+50 TO 141+50
C12	PLANPROFILE_12	NORTHBOUND TRACK PLAN AND PROFILE TRUMAN ROAD	STA. 141+50 TO 145+50
C13	PLANPROFILE_13	NORTHBOUND TRACK PLAN AND PROFILE 14TH STREET	STA. 145+50 TO 149+50
C14	PLANPROFILE_14	NORTHBOUND TRACK PLAN AND PROFILE 13TH STREET	STA. 149+50 TO 153+50
C15	PLANPROFILE_15	NORTHBOUND TRACK PLAN AND PROFILE 12TH STREET	STA. 153+50 TO 157+50
C16	PLANPROFILE_16	NORTHBOUND TRACK PLAN AND PROFILE 11TH STREET	STA. 157+50 TO 161+50
C17	PLANPROFILE_17	NORTHBOUND TRACK PLAN AND PROFILE PETTICOAT LANE	STA. 161+50 TO 165+50
C18	PLANPROFILE_18	NORTHBOUND TRACK PLAN AND PROFILE 10TH STREET	STA. 165+50 TO 169+50
C19	PLANPROFILE_19	NORTHBOUND TRACK PLAN AND PROFILE 9TH STREET	STA. 169+50 TO 173+50
C20	PLANPROFILE_20	NORTHBOUND TRACK PLAN AND PROFILE 8TH STREET	STA. 173+50 TO 177+50
C21	PLANPROFILE_21	NORTHBOUND TRACK PLAN AND PROFILE 7TH STREET	STA. 177+50 TO 181+00
C22	PLANPROFILE_22	NORTHBOUND TRACK PLAN AND PROFILE INDEPENDENCE AVENUE	STA. 181+00 TO 185+00
C23	PLANPROFILE_23	NORTHBOUND TRACK PLAN AND PROFILE 5TH & DELAWARE STREET	STA. 185+00 TO 188+50
C24	PLANPROFILE_24	NORTHBOUND TRACK PLAN AND PROFILE 5TH & MAIN STREET	STA. 188+50 TO 192+00
C25	PLANPROFILE_25	NORTHBOUND TRACK PLAN AND PROFILE WALNUT STREET	STA. 192+00 TO 196+00
C26	PLANPROFILE_26	NORTHBOUND TRACK PLAN AND PROFILE 5TH & GRAND BOULEVARD	STA. 196+00 TO 199+00
C27	PLANPROFILE_27	NB AND SB TRACK PLAN AND PROFILE GRAND BOULEVARD	STA. 199+00 TO 200+28.77 (NB) STA. 603+00 TO 604+94.33 (SB)
C28	PLANPROFILE_28	SOUTHBOUND TRACK PLAN AND PROFILE DELAWARE STREET	STA. 586+50 TO 590+50
C29	PLANPROFILE_29	SOUTHBOUND TRACK PLAN AND PROFILE DELAWARE & 3RD STREET	STA. 590+50 TO 592+50
C30	PLANPROFILE_30	SOUTHBOUND TRACK PLAN AND PROFILE 3RD STREET	STA. 592+50 TO 596+50
C31	PLANPROFILE_31	SOUTHBOUND TRACK PLAN AND PROFILE 3RD STREET	STA. 596+50 TO 599+50
C32	PLANPROFILE_32	SOUTHBOUND TRACK PLAN AND PROFILE 3RD STREET	STA. 599+50 TO 603+00
<b>TYPICAL SECTIONS</b>			
C33	TYPSEC_01	TYPICAL SECTIONS PROPOSED TRACK SECTIONS	PERSHING ROAD TO 20TH STREET & 20TH STREET TO TRUMAN ROAD N
C34	TYPSEC_02	TYPICAL SECTIONS PROPOSED TRACK SECTIONS	TRUMAN ROAD TO 13TH STREET & GRAND STREET, 5TH STREET, 3RD STREET
C35	TYPSEC_03	TYPICAL SECTIONS TRACK AND SLAB DETAILS	

SHEET NO. G2	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  INDEX SHEET 1 OF 2	SHEET NO. G2
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				CHECKED BY						
				APPROVED BY						
SHEET FILE: Index_01.dgn		PLOT DATE: 8/3/2012 1:07:32 PM								

**STREETCAR LOOP**

SHEET NO.	DRAWING NAME	DRAWING TITLE	STATION LOCATION
<b>PLATFORM/ STOP PLANS</b>			
C36	STATIONPLAN_01	PLATFORM/STOP PLANS 14TH STREET AND MAIN	
C37	STATIONPLAN_02	PLATFORM/STOP PLANS 10TH STREET AND MAIN	
C38	STATIONTYPSEC_01	TYPICAL SECTIONS PLATFORM/STOP SECTIONS	
<b>VMF / ARCH.</b>			
V1	VMFSITE_01	VEHICLE MAINTENANCE FACILITY SITE PLAN 1 OF 4	
V2	VMFSITE_02	VEHICLE MAINTENANCE FACILITY SITE PLAN 2 OF 4	
V3	VMFSITE_03	VEHICLE MAINTENANCE FACILITY SITE PLAN 3 OF 4	
V4	VMFSITE_04	VEHICLE MAINTENANCE FACILITY SITE PLAN 4 OF 4	
V5	VMF_FLOORPLAN	VEHICLE MAINTENANCE FACILITY FLOOR PLAN	
V6	VMF_MEZZPLAN	VEHICLE MAINTENANCE FACILITY MEZZANINE PLAN	
<b>UTILITES PUBLIC</b>			
UP1		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP2		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP3		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP4		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP5		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP6		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP7		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP8		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP9		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP10		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP11		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP12		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP13		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP14		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP15		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
UP16		UTILITY COMPOSITE DRAWINGS PUBLIC UTILITES	
<b>UTILITES FRANCHISE</b>			
UF1		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF2		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF3		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF4		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF5		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF6		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF7		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF8		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF9		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF10		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF11		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF12		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF13		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF14		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF15		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	
UF16		UTILITY COMPOSITE DRAWINGS FRANCHISE UTILITES	

SHEET NO. <b>G3</b>	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	 	<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  INDEX SHEET 2 OF 2	SHEET NO. <b>G3</b>
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				CHECKED BY						
				APPROVED BY						
SHEET FILE: Index_02.dgn			PLOT DATE: 8/3/2012 1:07:39 PM			PLOT DATE: 8/3/2012 1:07:39 PM BY: dbernard				



● STREETCAR STOP LOCATION

SHEET NO.	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED
K1					

SHEET FILE: KeyMap.dgn PLOT DATE: 8/3/2012 1:07:49 PM



**ADVANCED CONCEPTUAL  
ENGINEERING  
SUBMITTAL**  
  
**NOT FOR CONSTRUCTION**



KANSAS CITY DOWNTOWN STREETCAR

SHEET INDEX LAYOUT PLAN

SHEET NO.  
K1

Northbound Track Alignment				
Curve Number	Radius (ft)	Spiral Length (ft)	Design Speed (mph)	Superelev. Eu
N10120	1,000	0.00	20	1.58
N10490	1,400	0.00	25	1.77
N10670	1,500	0.00	25	1.65
N11020	3,000	0.00	25	0.83
N11100	3,000	0.00	25	0.83
N11400	1,400	0.00	25	1.77
N11560	1,400	0.00	25	1.77
N11750	200	25.00	15	4.46
N11820	150	25.00	10	2.64
N11980	2,000	0.00	30	1.78
N12070	2,000	0.00	30	1.78
N12230	2,000	0.00	30	1.78
N12290	2,000	0.00	30	1.78
N12740	2,500	0.00	35	1.94
N12780	2,500	0.00	35	1.94
N12960	2,500	0.00	35	1.94
N13050	2,500	0.00	35	1.94
N13340	5,000	0.00	45	1.60
N13760	2,500	0.00	35	1.94
N13960	2,500	0.00	35	1.94
N14080	2,500	0.00	35	1.94
N14190	2,000	0.00	30	1.78
N14290	2,500	0.00	35	1.94
N14550	2,500	0.00	35	1.94
N14690	2,000	0.00	30	1.78
N14760	1,500	0.00	25	1.65
N15280	2,000	0.00	30	1.78
N15440	2,000	0.00	30	1.78
N15670	1,500	0.00	25	1.65
N15740	1,500	0.00	25	1.65
N16020	5,000	0.00	45	1.60
N16190	5,000	0.00	45	1.60
N16320	5,000	0.00	45	1.60
N16550	1,000	0.00	20	1.58
N16630	700	0.00	15	1.27
N16790	1,500	0.00	25	1.65
N16870	1,500	0.00	25	1.65
N17140	1,500	0.00	25	1.65
N17290	1,350	0.00	25	1.83
N17370	1,000	0.00	20	1.58
N17430	700	0.00	15	1.27
N17570	1,000	0.00	20	1.58

Northbound Track Alignment				
Curve Number	Radius (ft)	Spiral Length (ft)	Design Speed (mph)	Superelev. Eu
N17640	1,500	0.00	25	1.65
N17780	250	25.00	15	3.56
N17910	1,350	25.00	30	2.64
N18420	300	25.00	15	2.97
N18520	300	25.00	15	2.97
N18610	630	0.00	15	1.41
N18740	66	25.00	5	1.50
N19060	1,000	0.00	20	1.58
N19130	1,000	0.00	20	1.58
N19400	1,000	0.00	20	1.58
N19480	1,350	0.00	25	1.83
N19800	66	25.00	5	1.50
N19890	140	25.00	10	2.83

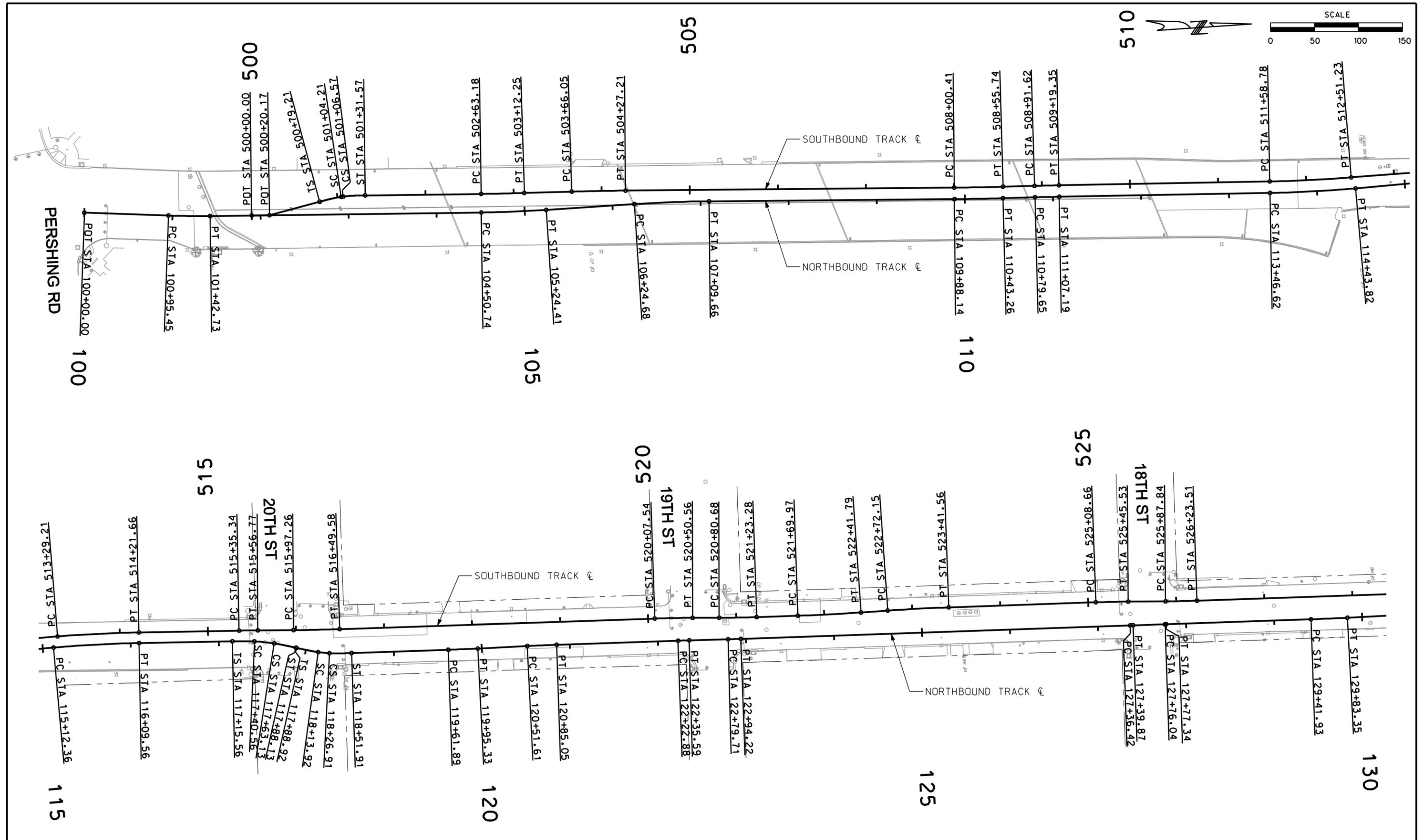
Southbound Track Alignment				
Curve Number	Radius (ft)	Spiral Length (ft)	Design Speed (mph)	Superelev. Eu
S50100	110	25.00	10	3.60
S50290	3,000	0.00	40	2.11
S50400	3,000	0.00	40	2.11
S50830	3,000	0.00	40	2.11
S50900	3,000	0.00	40	2.11
S51200	1,500	0.00	25	1.65
S51370	1,500	0.00	25	1.65
S51550	2,000	0.00	30	1.78
S51620	2,000	0.00	30	1.78
S52030	1,400	0.00	25	1.77
S52100	1,400	0.00	25	1.77
S52200	2,000	0.00	30	1.78
S52300	2,000	0.00	30	1.78
S52530	1,400	0.00	25	1.77
S52600	1,400	0.00	25	1.77
S53150	2,000	0.00	30	1.78
S53190	2,000	0.00	30	1.78
S53320	2,000	0.00	30	1.78
S53400	2,000	0.00	30	1.78
S53530	1,500	0.00	25	1.65
S53600	1,500	0.00	25	1.65
S54030	4,000	0.00	45	2.00
S54250	1,400	0.00	25	1.77

Southbound Track Alignment				
Curve Number	Radius (ft)	Spiral Length (ft)	Design Speed (mph)	Superelev. Eu
S54330	1,400	0.00	25	1.77
S54540	4,000	0.00	45	2.00
S54580	4,000	0.00	45	2.00
S54990	1,400	0.00	25	1.77
S55080	1,400	0.00	25	1.77
S55230	1,000	0.00	20	1.58
S55360	1,000	0.00	20	1.58
S55540	1,250	0.00	20	1.27
S55570	1,250	0.00	20	1.27
S55690	1,000	25.00	25	2.48
S55830	1,000	25.00	25	2.48
S56090	700	25.00	25	3.54
S56200	650	0.00	15	1.37
S56370	1,400	0.00	25	1.77
S56430	1,400	0.00	25	1.77
S56500	280	25.00	15	3.18
S56720	1,050	25.00	25	2.36
S56860	1,400	0.00	25	1.77
S56980	330	25.00	15	2.70
S57040	200	25.00	15	4.46
S57190	700	25.00	25	3.54
S57310	2,800	0.00	40	2.26
S57610	496	25.00	20	3.19
S57710	600	25.00	20	2.64
S58240	250	25.00	15	3.56
S58340	800	25.00	25	3.09
S58440	1,500	25.00	30	2.38
S58530	200	25.00	15	4.46
S58600	200	25.00	15	4.46
S59010	350	25.00	15	2.55
S59130	66	25.00	5	1.50
S59220	2,000	0.00	30	1.78
S59840	1,800	0.00	30	1.98
S59920	1,800	0.00	30	1.98
S60080	400	0.00	10	0.99
S60180	82.02	0.00	5	1.21
S60290	1,350	0.00	25	1.83
S60400	1,400	0.00	25	1.77

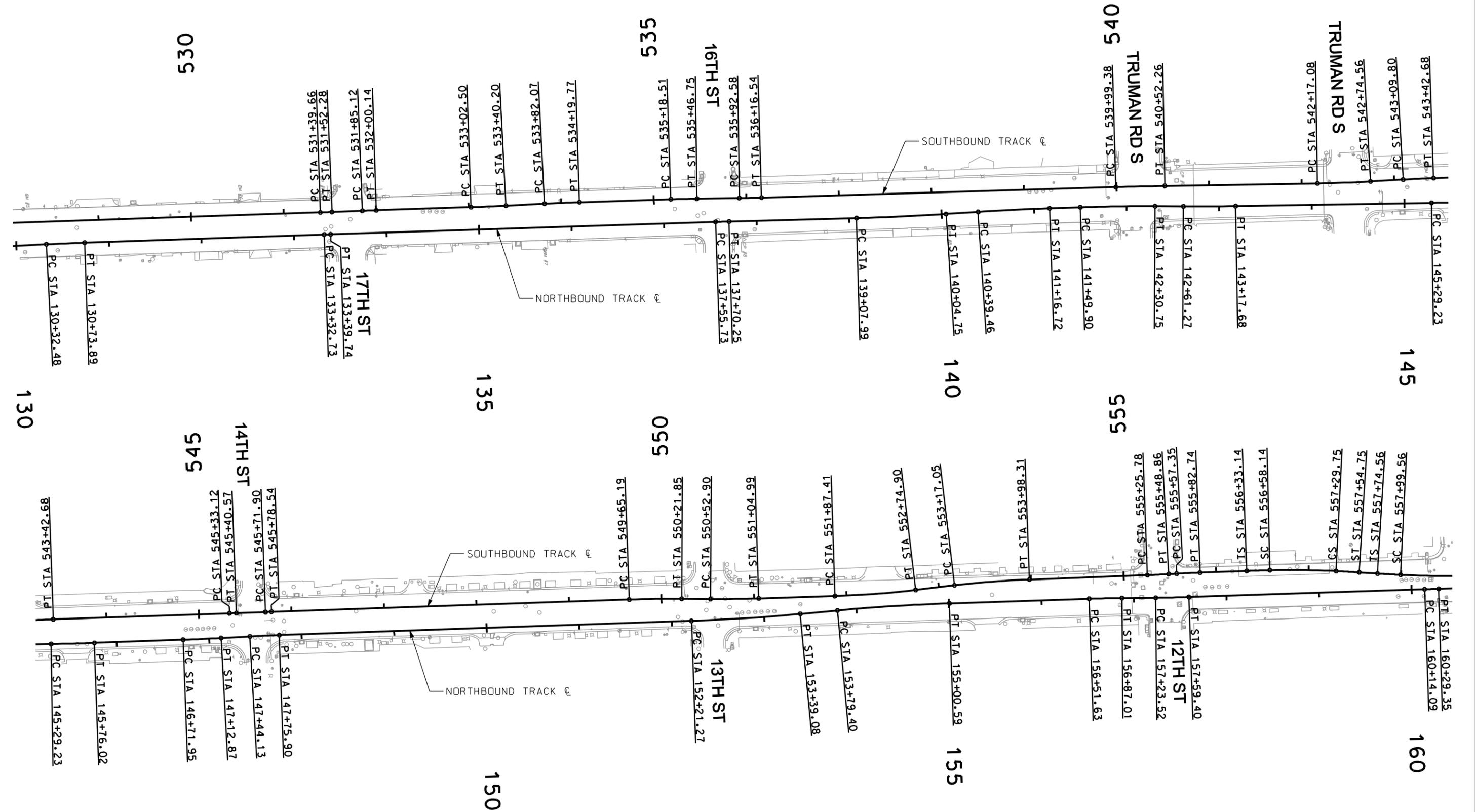
GENERAL NOTES

- ALIGNMENT AND GEOMETRY SHOWN IN THE ADVANCED CONCEPTUAL ENGINEERING SET IS PRELIMINARY IN NATURE AND INTENDED TO ILLUSTRATE FEASIBILITY AND GIVE APPROXIMATE DESIGN SPEEDS. IT SHOULD BE FURTHER REVIEWED AND OPTIMIZED DURING FINAL DESIGN.
- ACTUAL SUPER ELEVATION (EA) IS 0" FOR ALL CURVES UNLESS OTHERWISE NOTED.
- DESIGN SPEEDS CALCULATED BASED ON A MAXIMUM UNBALANCE (EU) OF 4.5" WHERE  $EU = 3.96(V^2/R)$ .
- SPIRAL CALCULATIONS ARE BASED OFF OF THE FOLLOWING FORMULA:  $L_S(MIN) = 0.29EU(V)$ .
- SPIRALS WERE NOT INCLUDED WHERE  $L_S(CALCULATED) < 0.01 \times RADIUS$ .
- CURVE NUMBERS IN ALIGNMENT TABLE CORRESPOND TO P+ STATION OF CURVE IN ALIGNMENT. EXAMPLE: CURVE # S56500 CORRESPONDS TO THE CURVE ON THE SOUTH (S) BOUND ALIGNMENT AT STATION 565+00 (56500).

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				DRAWN BY	DIV. ENGINEER					
				CHECKED BY						
				APPROVED BY						
SHEET FILE: Align_Table_01.dgn			PLOT DATE: 8/3/2012 1:07:56 PM			ALIGNMENT CURVE DATA				



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ISSUE	DATE	DESCRIPTION																													
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SHEET NO.	ISSUE	DATE	DESCRIPTION
K4			

DESIGNED BY	DATE APPROVED
DRAWN BY	DIV. ENGINEER
CHECKED BY	
APPROVED BY	

SHEET FILE: Align\_02.dgn      PLOT DATE: 8/3/2012 1:08:32 PM



**ADVANCED CONCEPTUAL  
ENGINEERING  
SUBMITTAL**

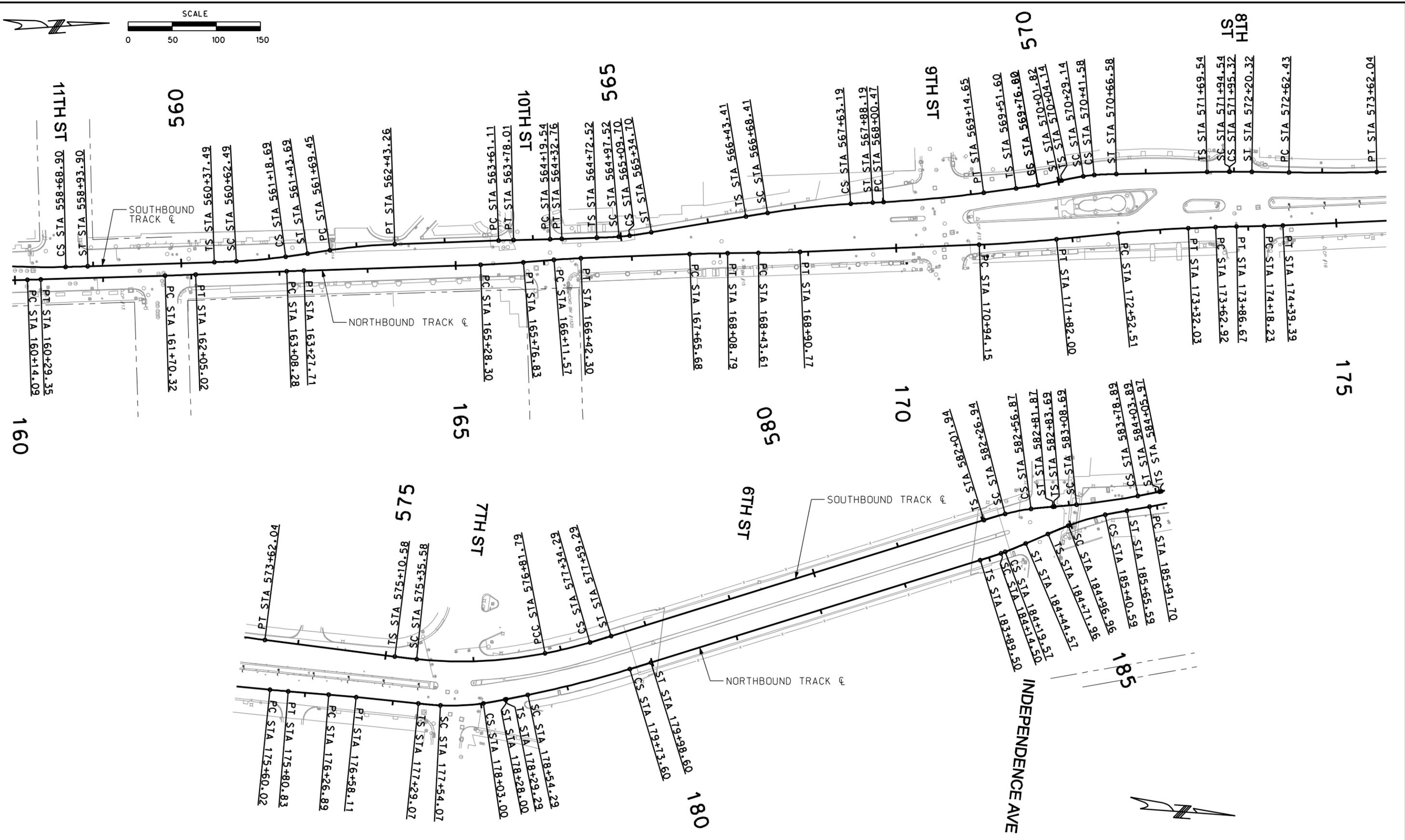
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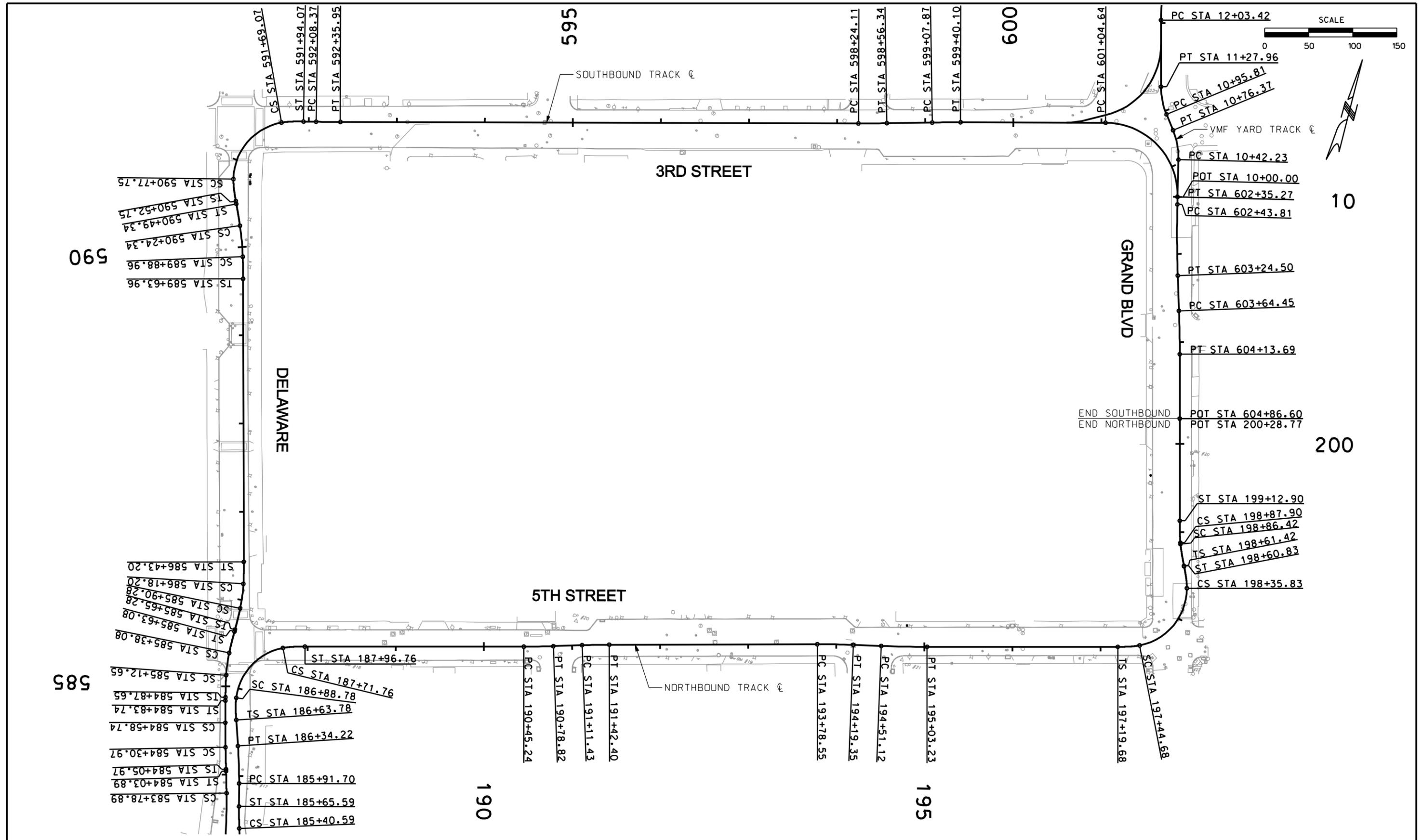
KANSAS CITY DOWNTOWN STREETCAR

ALIGNMENT PLAN  
17TH STREET TO 12TH STREET  
STA. 130+00.00 TO 160+00.00

SHEET NO.  
K4



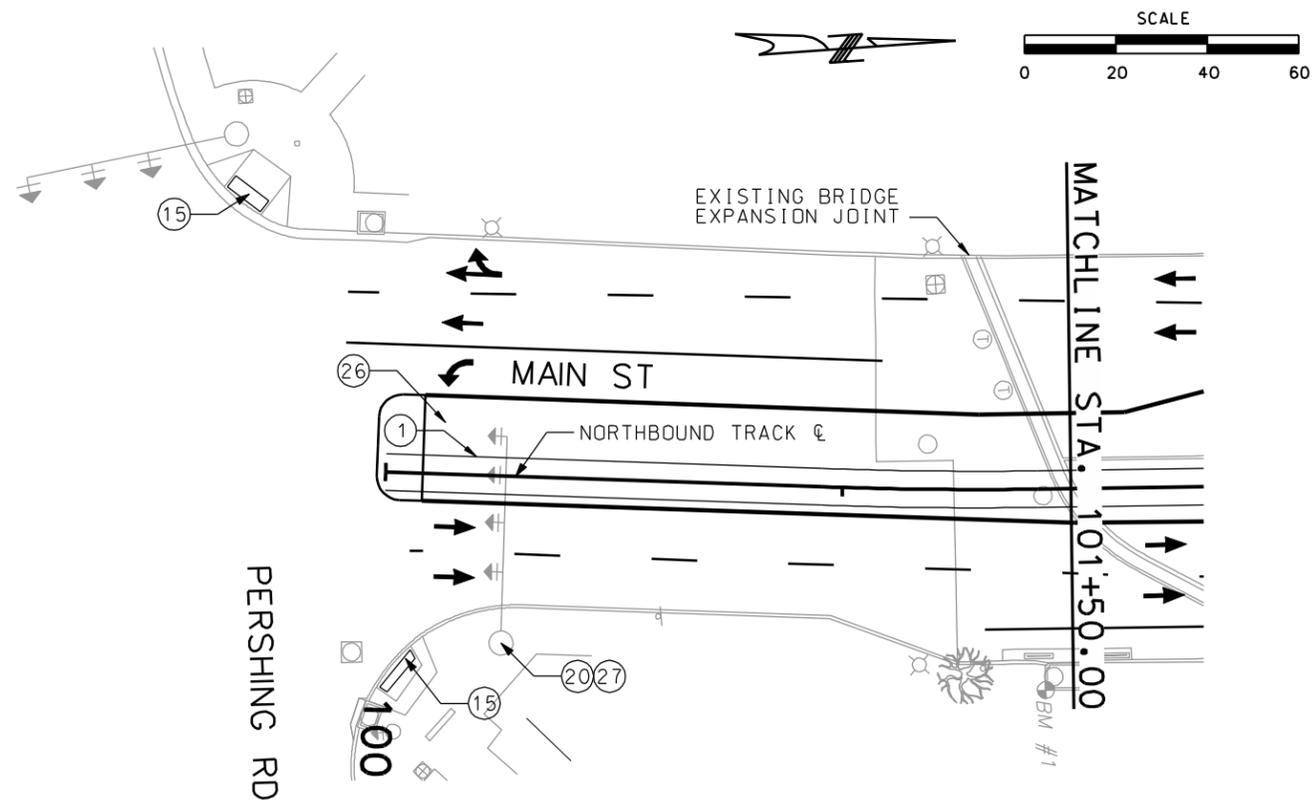
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				APPROVED BY						
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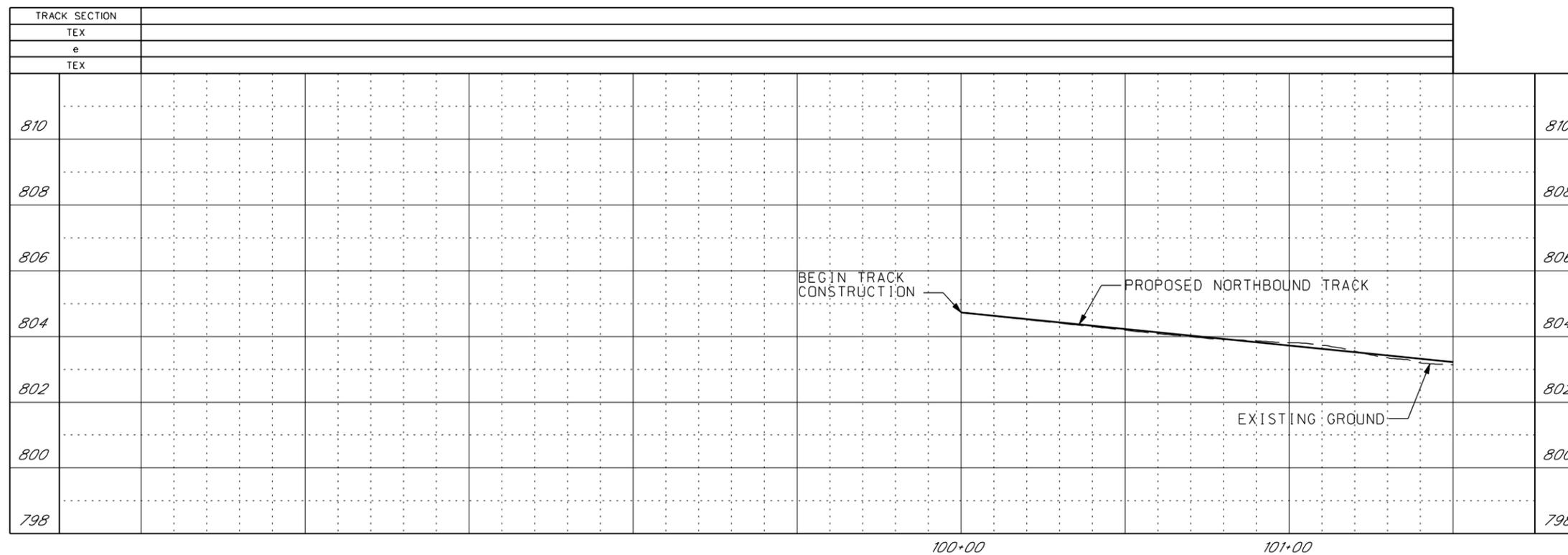
SHEET NO. K6	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. K6
SHEET FILE: Align_04.dgn		PLOT DATE: 8/3/2012 1:09:13 PM				ALIGNMENT PLAN INDEPENDENCE AVENUE THROUGH LOOP STA. 186+00.00 TO 200+29.72		

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ INSTALL NEW SIGNAL POLE WITHIN RAISED MEDIAN.
- ㉓ RELOCATE EXISTING VIDEO DETECTION.



Δ CP #1



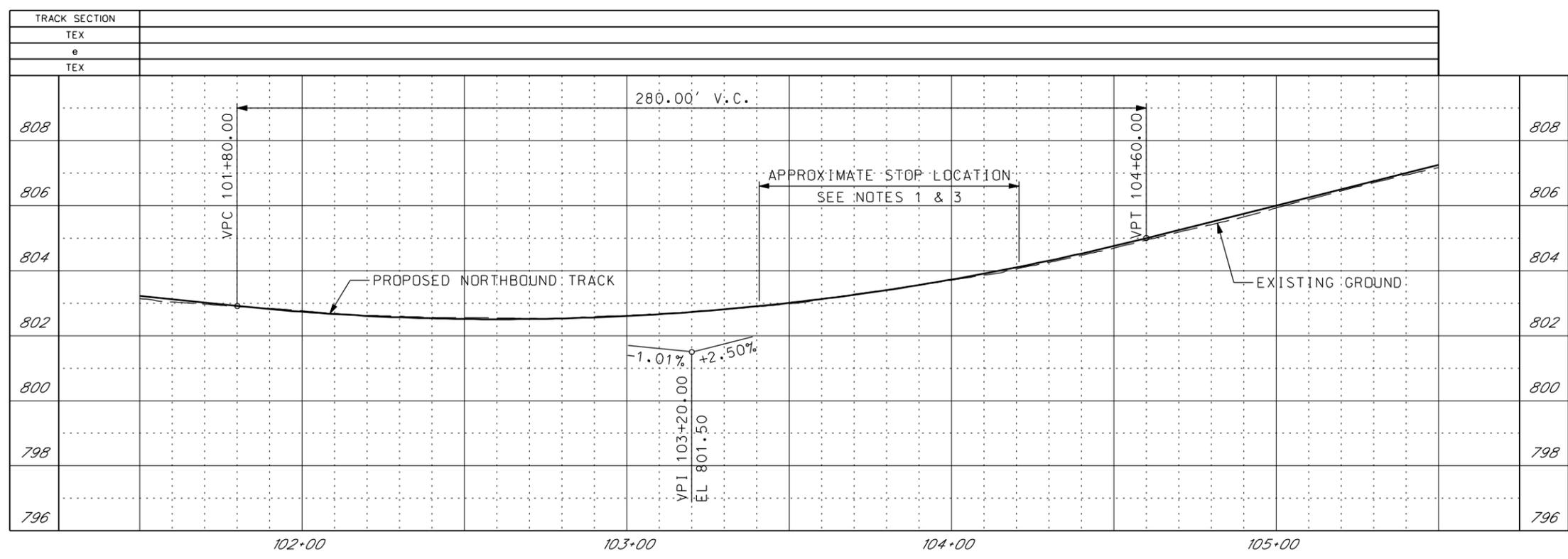
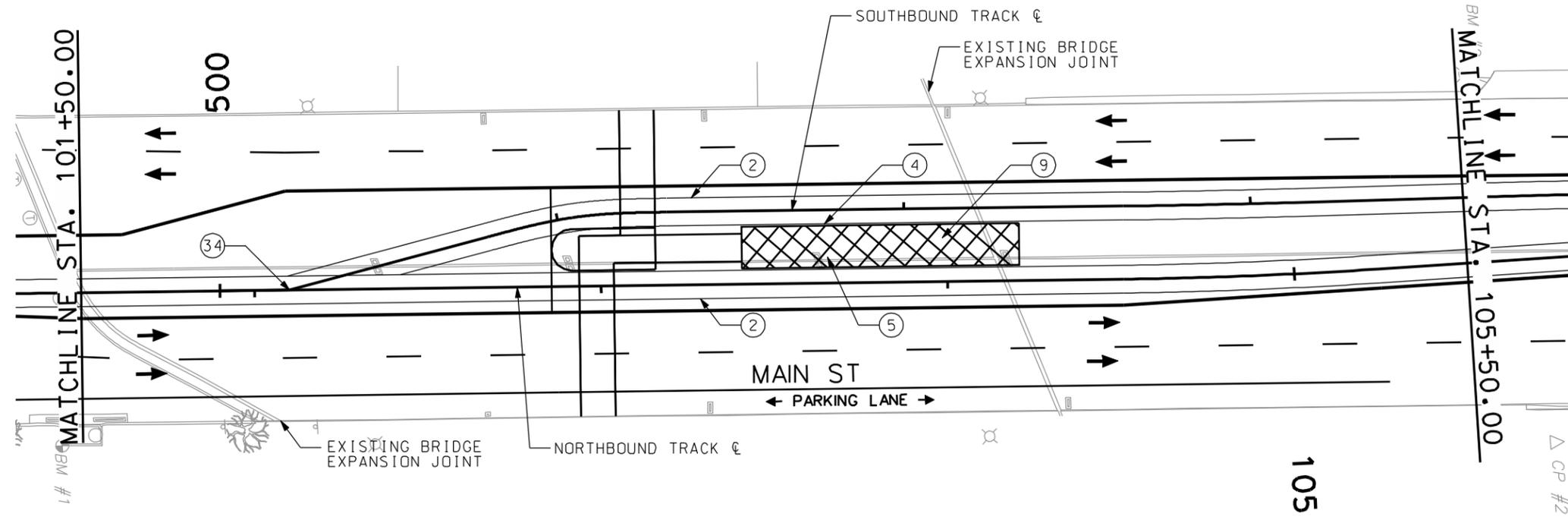
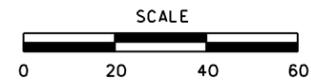
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C1	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE PERSHING ROAD STA. 100+00 TO 101+50.00	SHEET NO. C1
SHEET FILE: PlanProfile_01.dgn		PLOT DATE: 8/3/2012 1:09:30 PM						

CONSTRUCTION NOTES

- ② CONSTRUCT TRACK ON STRUCTURE (SEE DETAIL 2, SHEET C35).
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑨ CONSTRUCT STREETCAR STOP-CENTER.
- ③④ INSTALL EMBEDDED 25m 115RE TURNOUT.

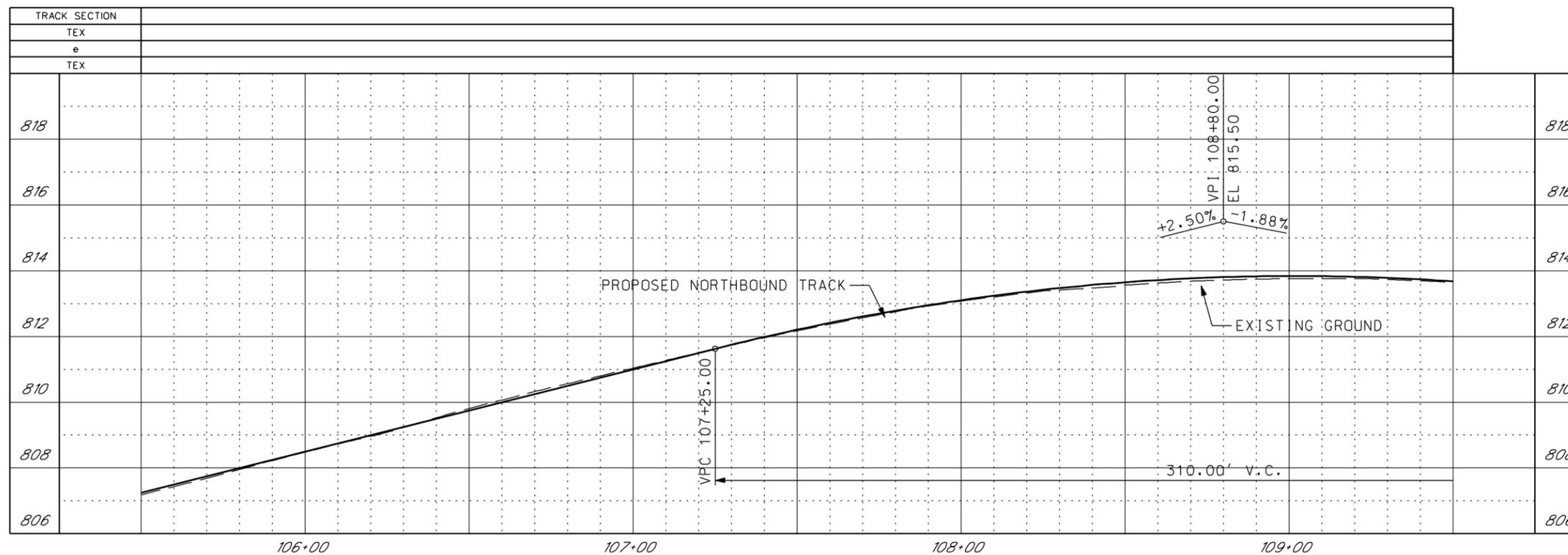
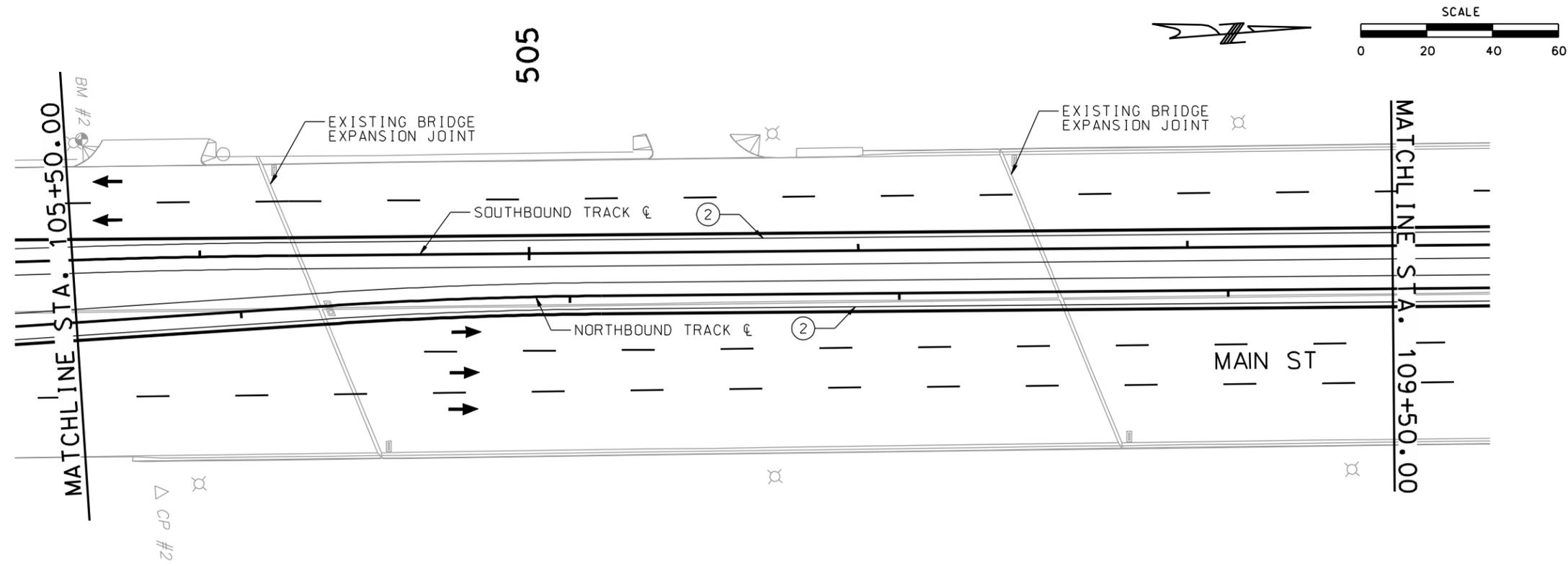


GENERAL NOTES

1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C2	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY		APPROVED BY			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE UNION STATION STA. 101+50.00 TO 105+50.00	SHEET NO. C2
ISSUE	DATE	DESCRIPTION																												
DESIGNED BY	DATE APPROVED																													
DRAWN BY	DIV. ENGINEER																													
CHECKED BY																														
APPROVED BY																														
SHEET FILE: PlanProfile_02.dgn      PLOT DATE: 8/3/2012 1:09:45 PM		PLOT DATE: 8/3/2012 1:09:45 PM      BY: dbernard																												

② CONSTRUCT TRACK ON STRUCTURE (SEE DETAIL 2, SHEET C35).

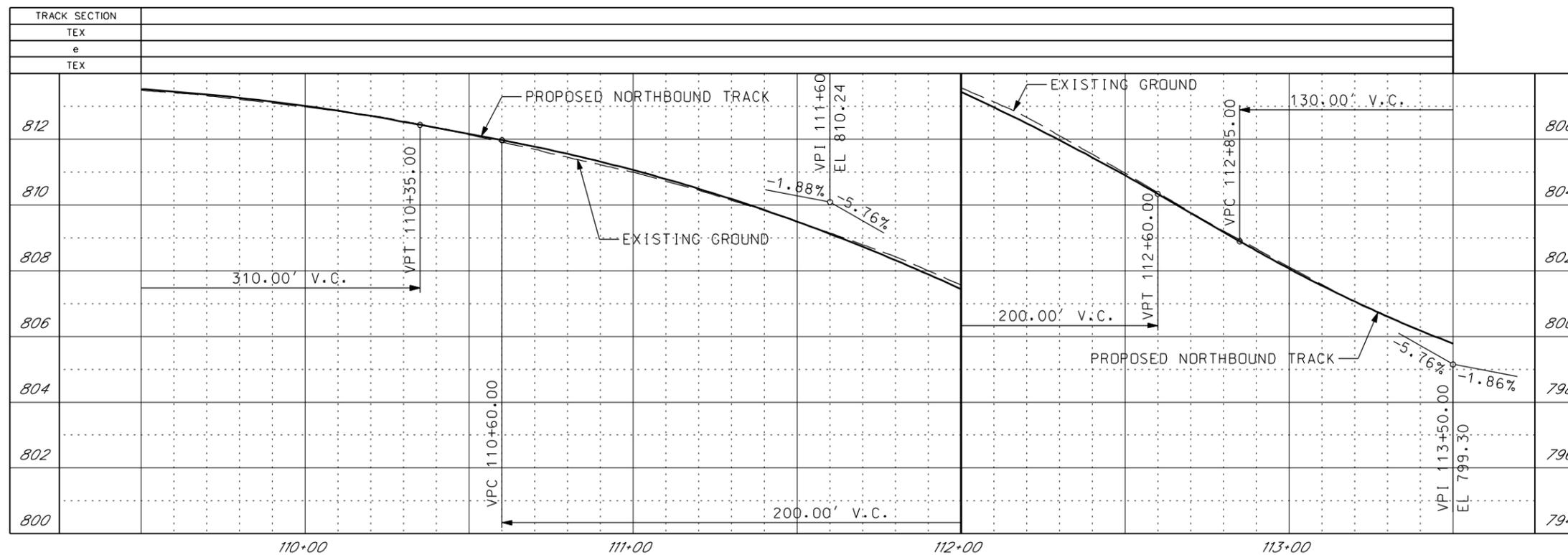
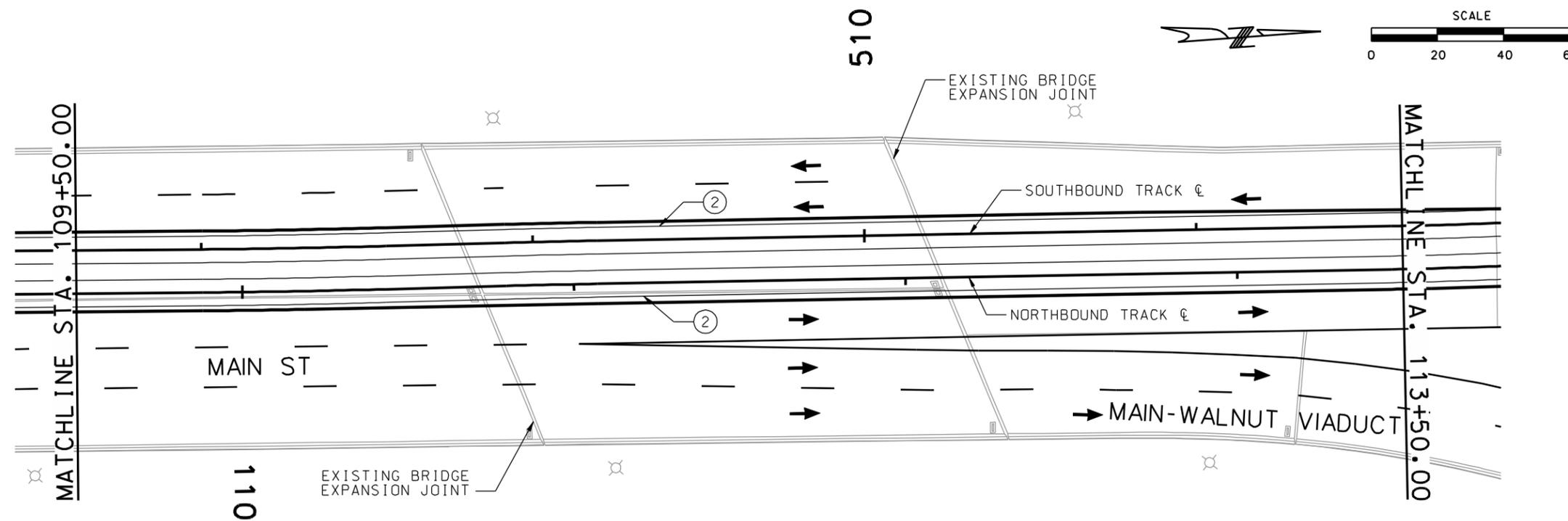


GENERAL NOTES

1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C3	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE MAIN STREET BRIDGE STA. 105+50.00 TO 109+50.00</p>	SHEET NO. C3
				DRAWN BY	DIV. ENGINEER				
				CHECKED BY					
				APPROVED BY					
SHEET FILE: PlanProfile_03.dgn			PLOT DATE: 8/3/2012 1:10:02 PM		BY: dbernard				

② CONSTRUCT TRACK ON STRUCTURE (SEE DETAIL 2, SHEET C35).

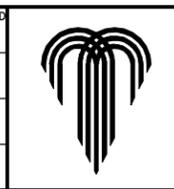


GENERAL NOTES

1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

ISSUE	DATE	DESCRIPTION
C4		

DESIGNED BY	DATE APPROVED
DRAWN BY	DIV. ENGINEER
CHECKED BY	
APPROVED BY	



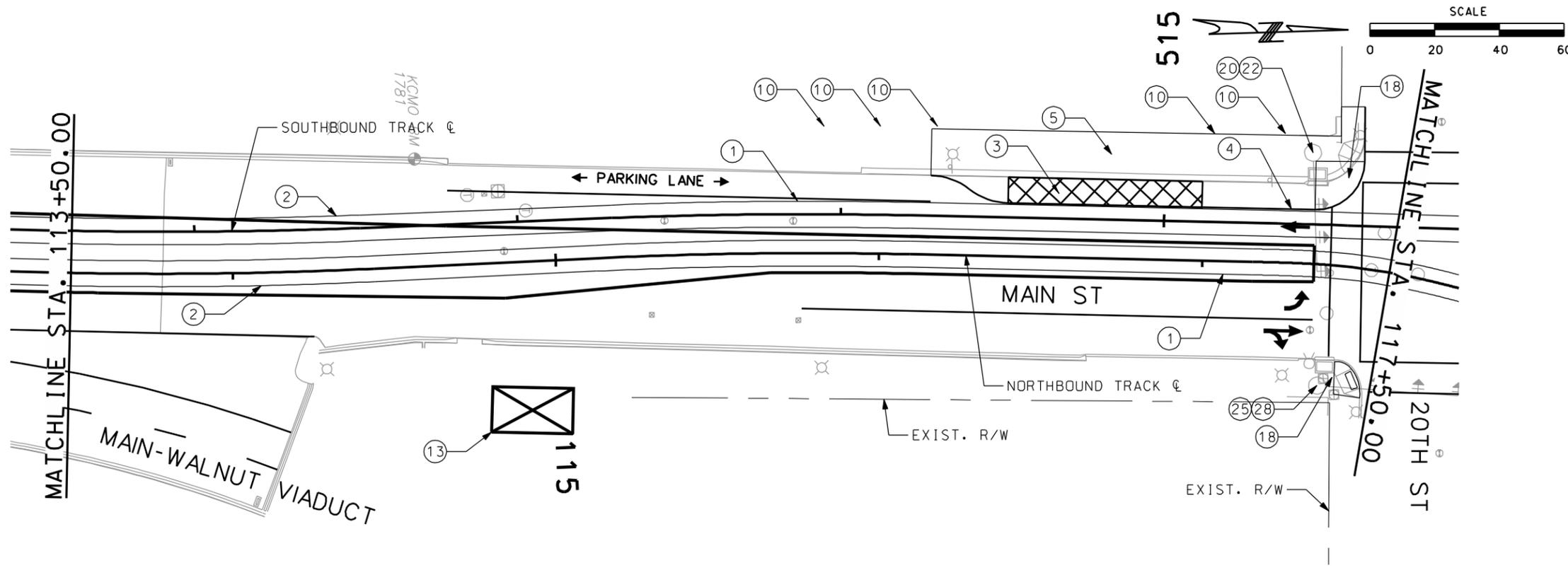
**ADVANCED CONCEPTUAL  
ENGINEERING  
SUBMITTAL**  
**NOT FOR CONSTRUCTION**



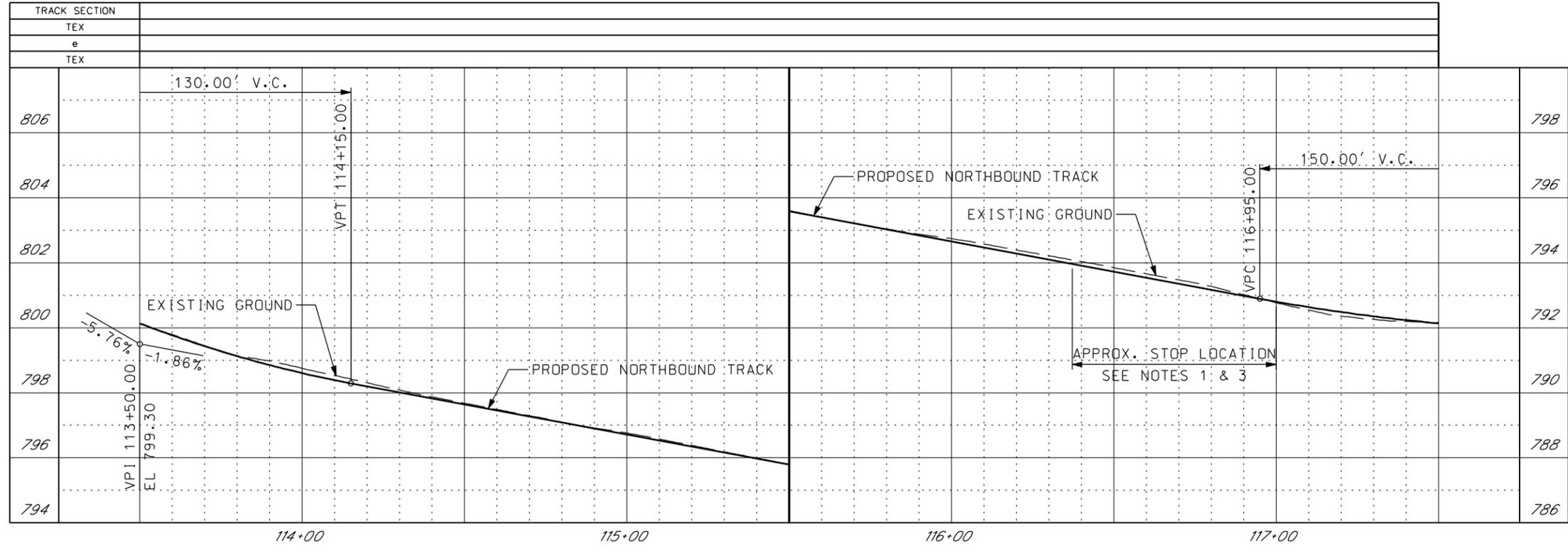
KANSAS CITY DOWNTOWN STREETCAR

NORTHBOUND TRACK  
PLAN AND PROFILE  
MAIN STREET BRIDGE/MAIN-WALNUT VIADUCT  
STA. 109+50.00 TO 113+50.00

SHEET NO.  
C4



- CONSTRUCTION NOTES**
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
  - ② CONSTRUCT TRACK ON STRUCTURE (SEE DETAIL 2, SHEET C35).
  - ③ CONSTRUCT STREETCAR STOP - SIDE.
  - ④ CONSTRUCT CURB AND GUTTER.
  - ⑤ CONSTRUCT SIDEWALK.
  - ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
  - ⑬ POTENTIAL SUBSTATION LOCATION.
  - ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.
  - ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
  - ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
  - ㉕ REMOVE EXISTING SIGNAL POLE, MAST ARM, AND ASSOCIATED EQUIPMENT.
  - ㉘ INSTALL NEW SIGNAL POLE WITH DUAL MAST ARMS.

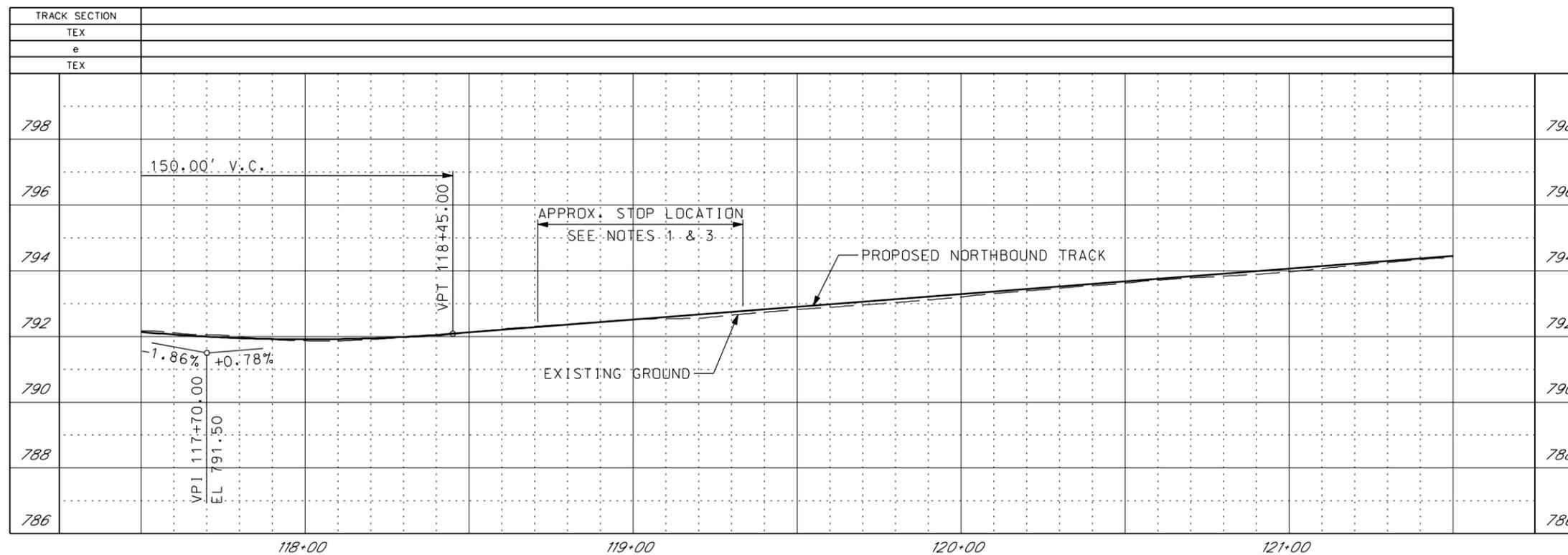
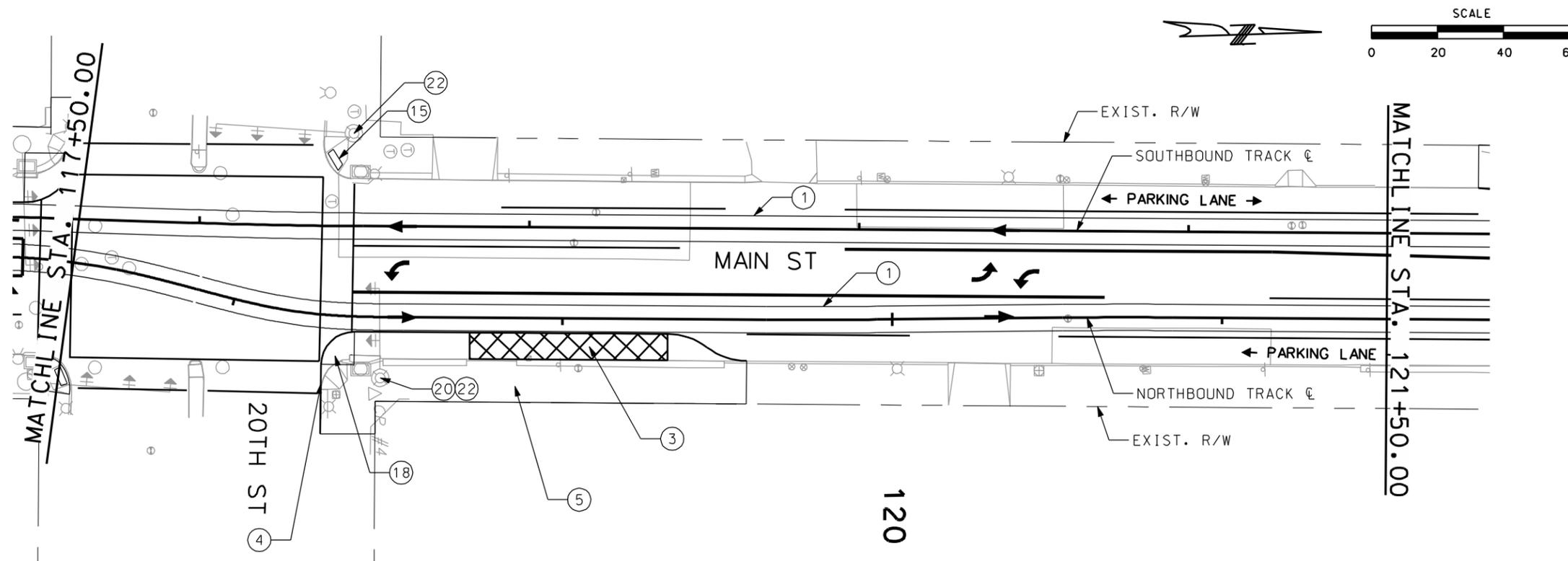


- GENERAL NOTES**
1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
  2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
  3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C5	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY				APPROVED BY					<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE MAIN-WALNUT VIADUCT STA. 113+50.00 TO 117+50.00</p>	SHEET NO. C5
ISSUE	DATE	DESCRIPTION																																
DESIGNED BY	DATE APPROVED																																	
DRAWN BY	DIV. ENGINEER																																	
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APPROVED BY																																		
SHEET FILE: PlanProfile_05.dgn		PLOT DATE: 8/3/2012 1:10:31 PM		PLOT DATE: 8/3/2012 1:10:31 PM BY: dbernard		PLOT DATE: 8/3/2012 1:10:31 PM BY: dbernard																												

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
- ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.



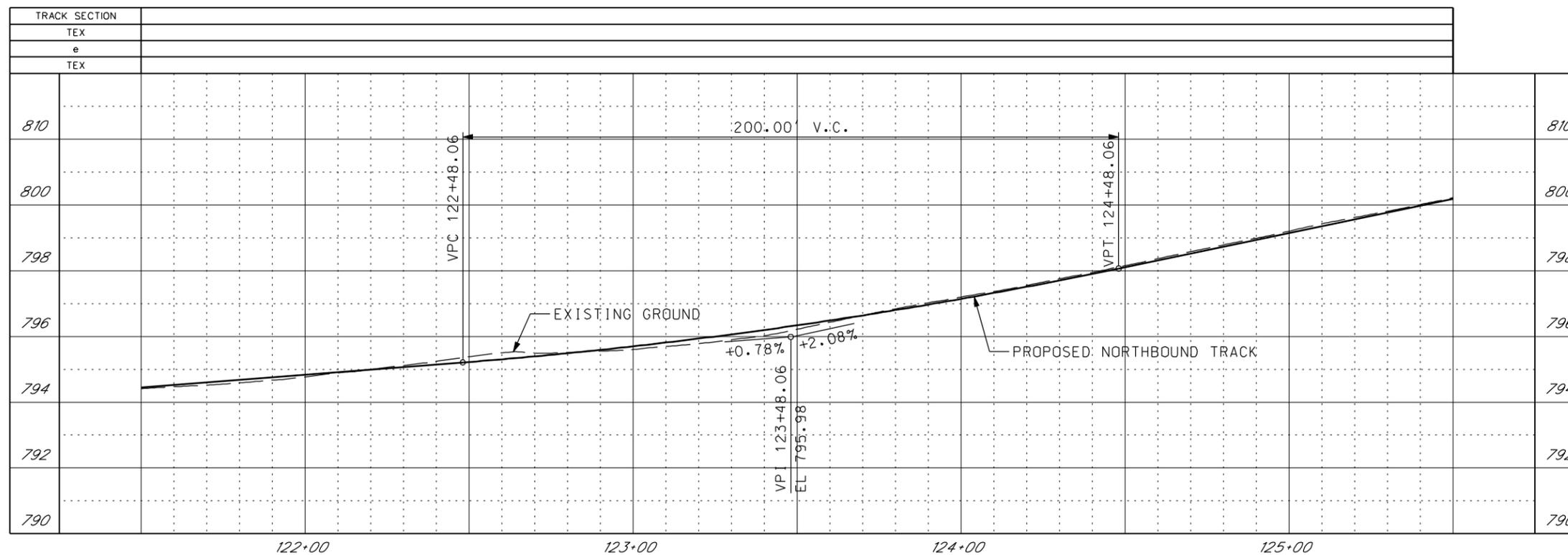
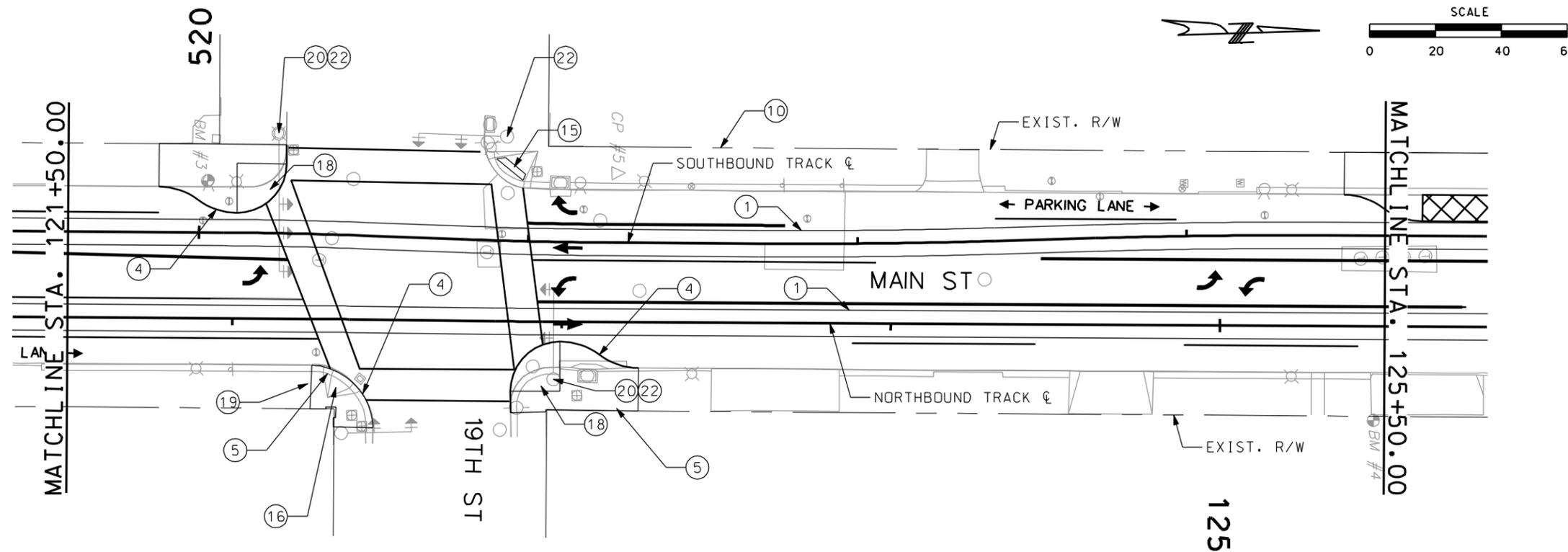
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C6	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>	<b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. C6
								NORTHBOUND TRACK PLAN AND PROFILE 20TH STREET STA. 117+50.00 TO 121+50.00	
SHEET FILE: PlanProfile_06.dgn		PLOT DATE: 8/3/2012 1:10:51 PM							

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
- ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑰ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑲ INSTALL NEW PED POLE WITH SIDE OF POLE SIGNAL HEAD.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.



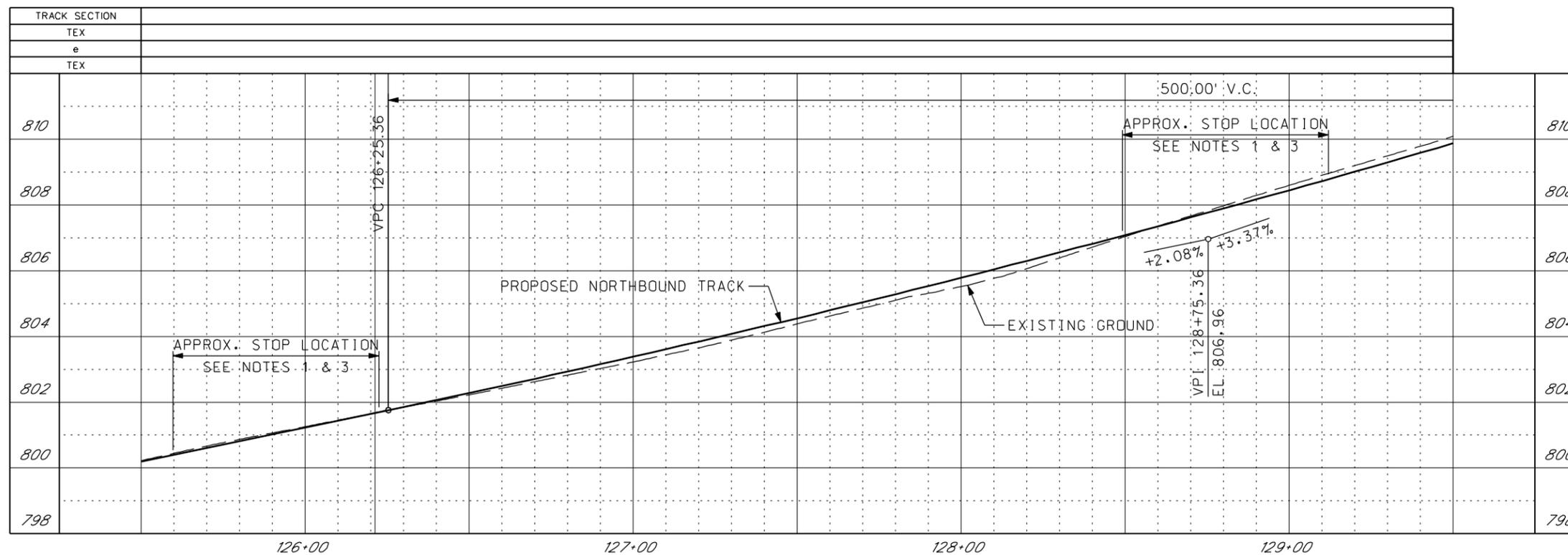
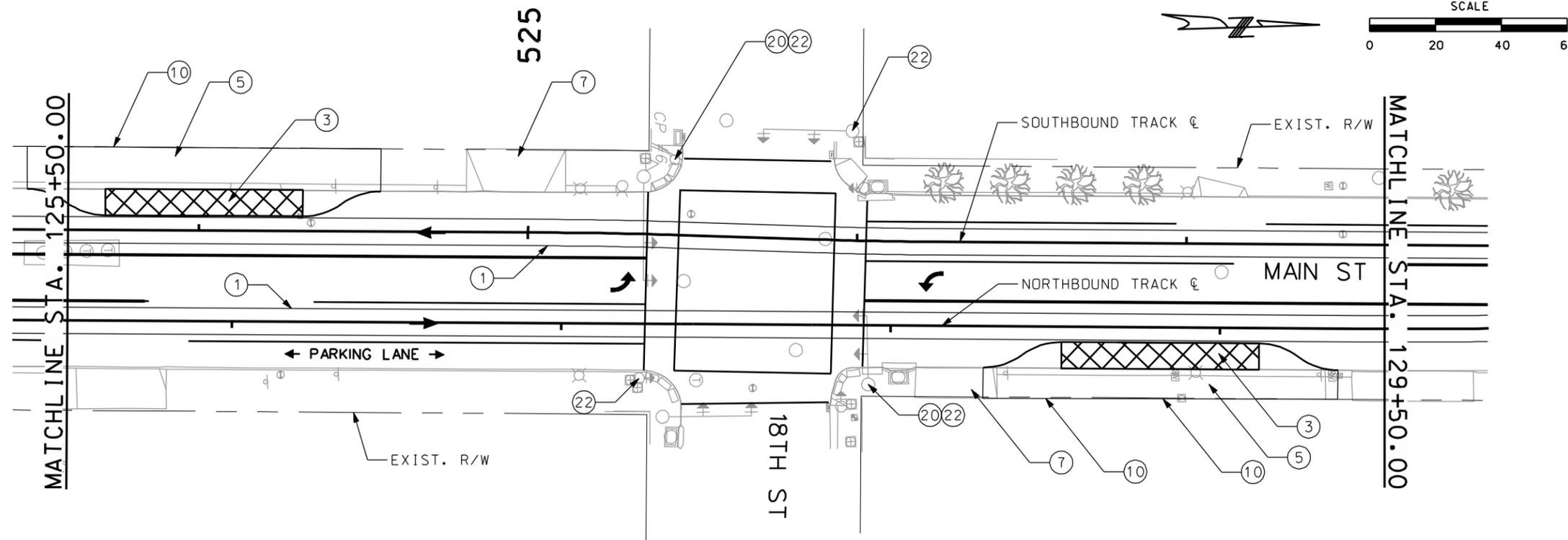
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C7	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	DESIGNED BY	DATE APPROVED										<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE 19TH STREET STA. 121+50.00 TO 125+50.00</p>	SHEET NO. C7
ISSUE	DATE	DESCRIPTION																										
DESIGNED BY	DATE APPROVED																											
SHEET FILE: PlanProfile_07.dgn		PLOT DATE: 8/3/2012 1:11:06 PM		PLOT DATE: 8/3/2012 1:11:06 PM BY: dbernard																								

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ⑤ CONSTRUCT SIDEWALK.
- ⑦ MAINTAIN EXISTING DRIVEWAY.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.



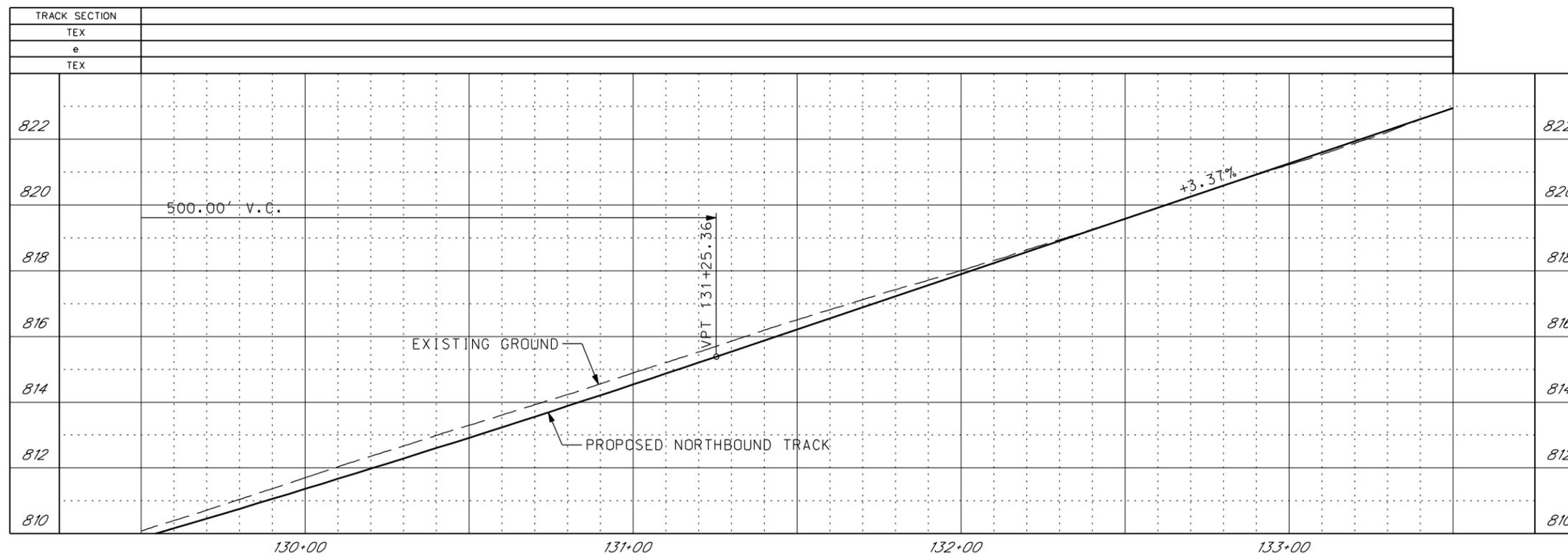
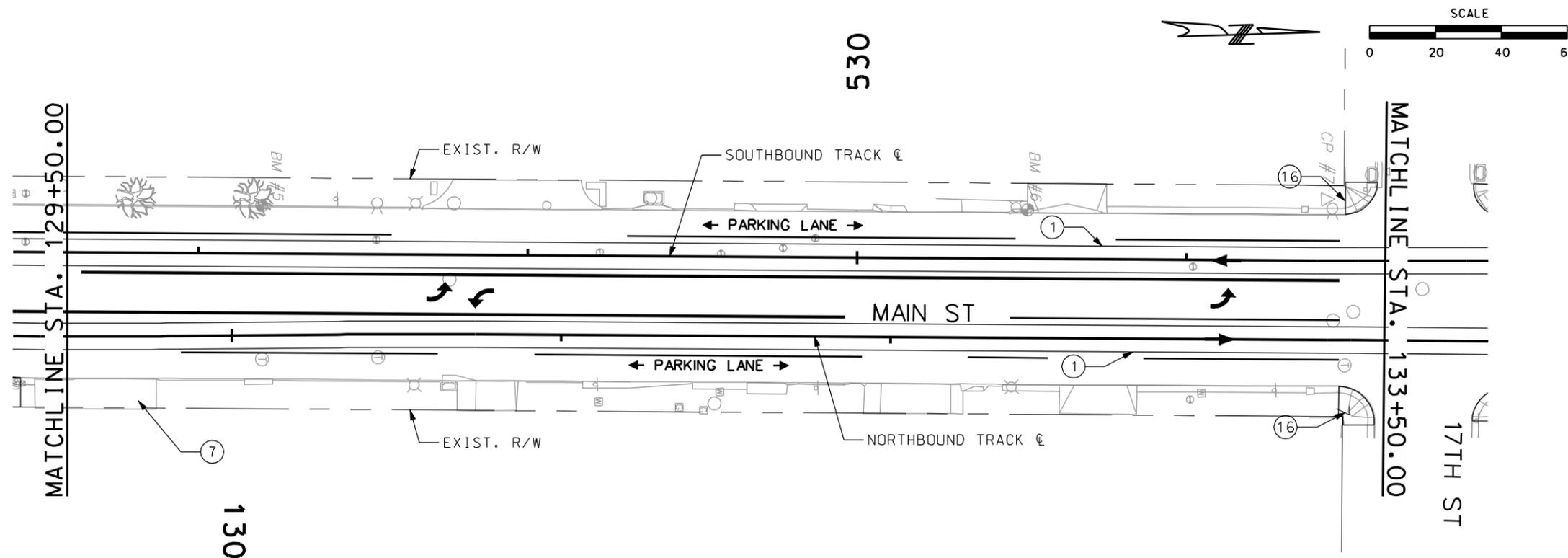
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C8	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 18TH STREET STA. 125+50.00 TO 129+50.00	SHEET NO. C8
SHEET FILE: PlanProfile_08.dgn		PLOT DATE: 8/3/2012 1:11:21 PM							

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ⑦ MAINTAIN EXISTING DRIVEWAY.
- ⑩ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.



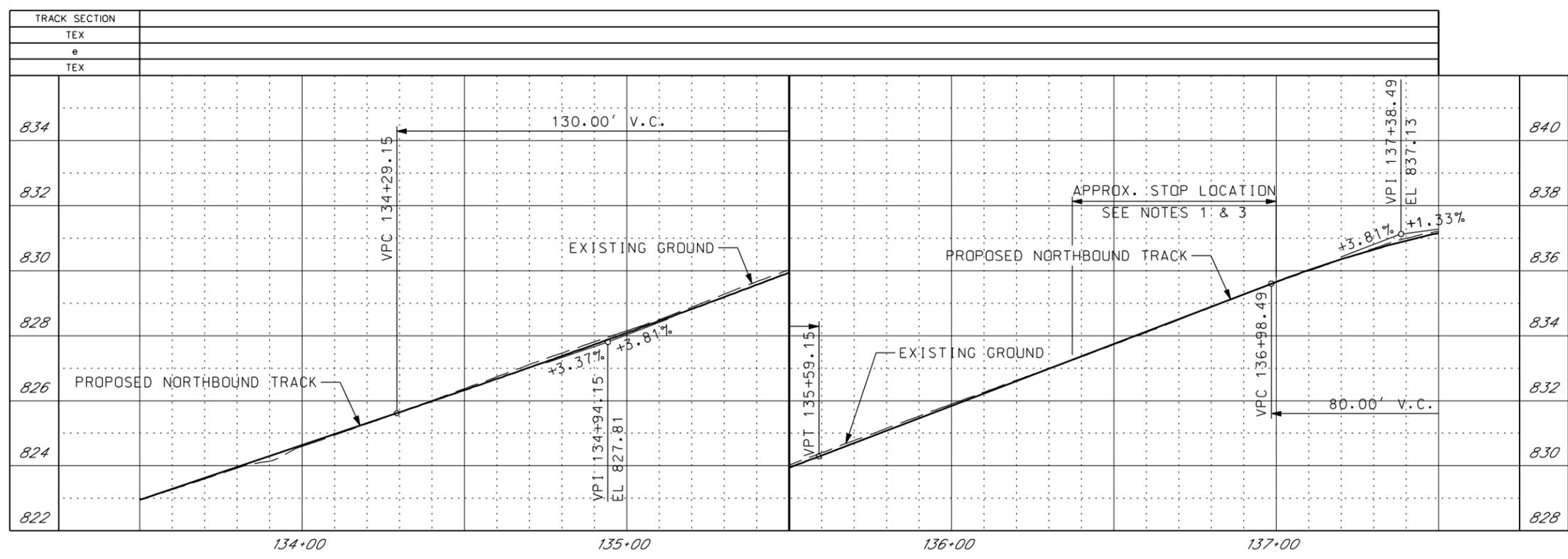
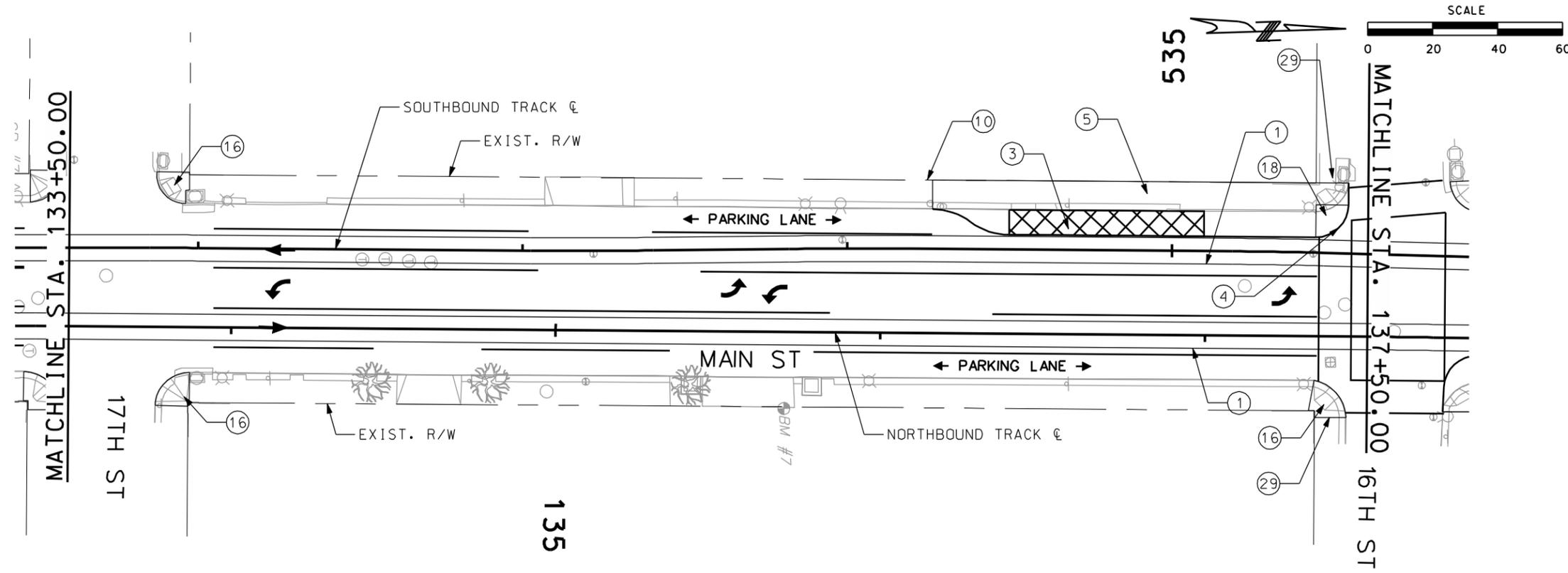
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- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C9	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 17TH STREET STA. 129+50.00 TO 133+50.00	SHEET NO. C9	
		DRAWN BY	DIV. ENGINEER					
		CHECKED BY						
		APPROVED BY						
SHEET FILE: PlanProfile_09.dgn		PLOT DATE: 8/3/2012 1:11:36 PM						

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑲ SIGNALIZE INTERSECTION.



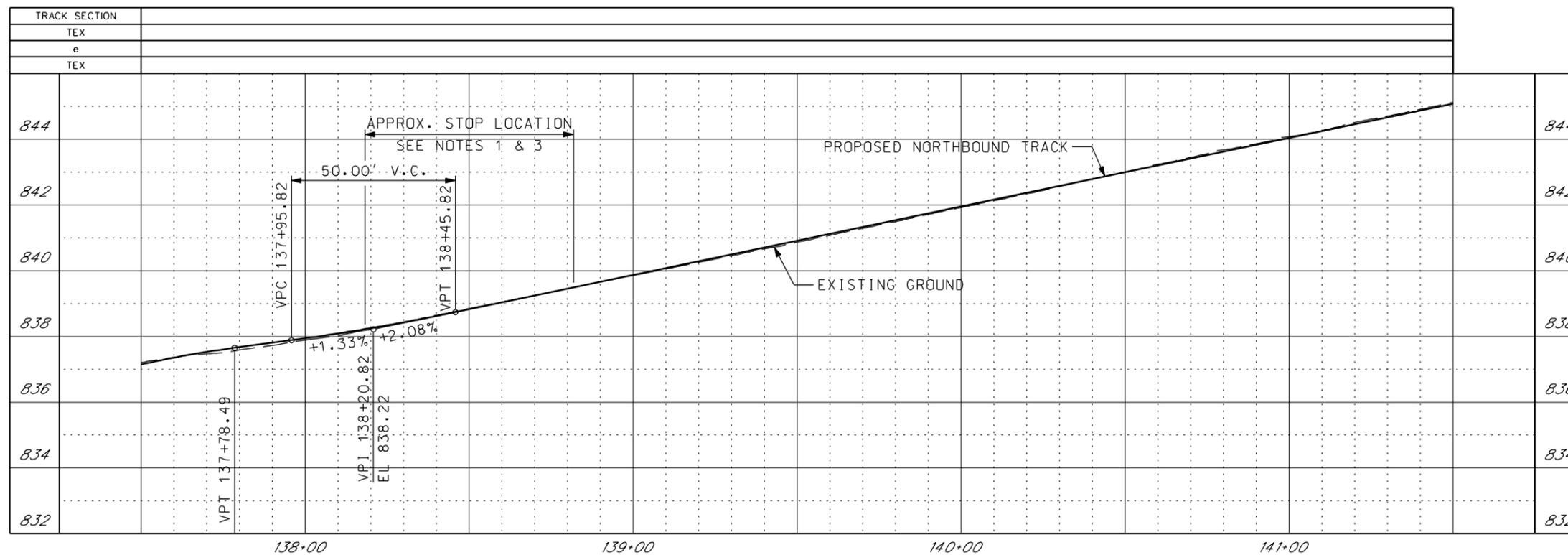
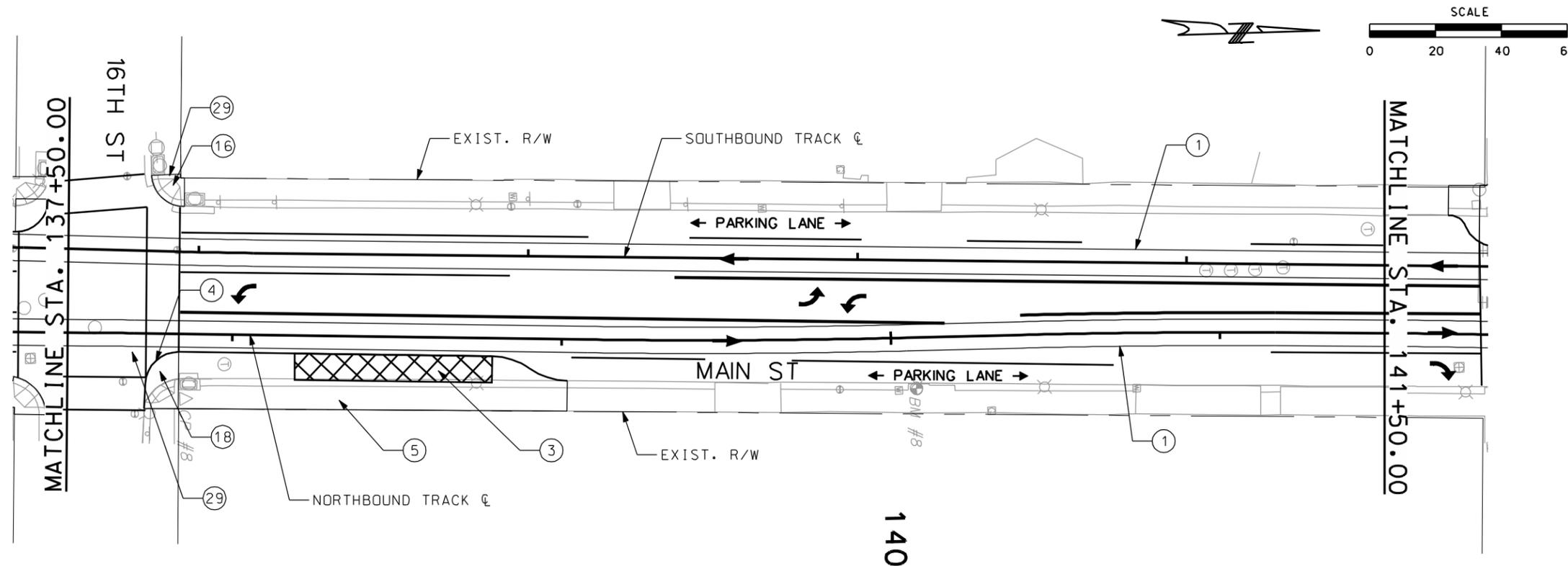
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C10	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 16TH STREET STA. 133+50.00 TO 137+50.00	SHEET NO. C10
SHEET FILE: PlanProfile_10.dgn PLOT DATE: 8/3/2012 1:11:56 PM					

CONSTRUCTION NOTES

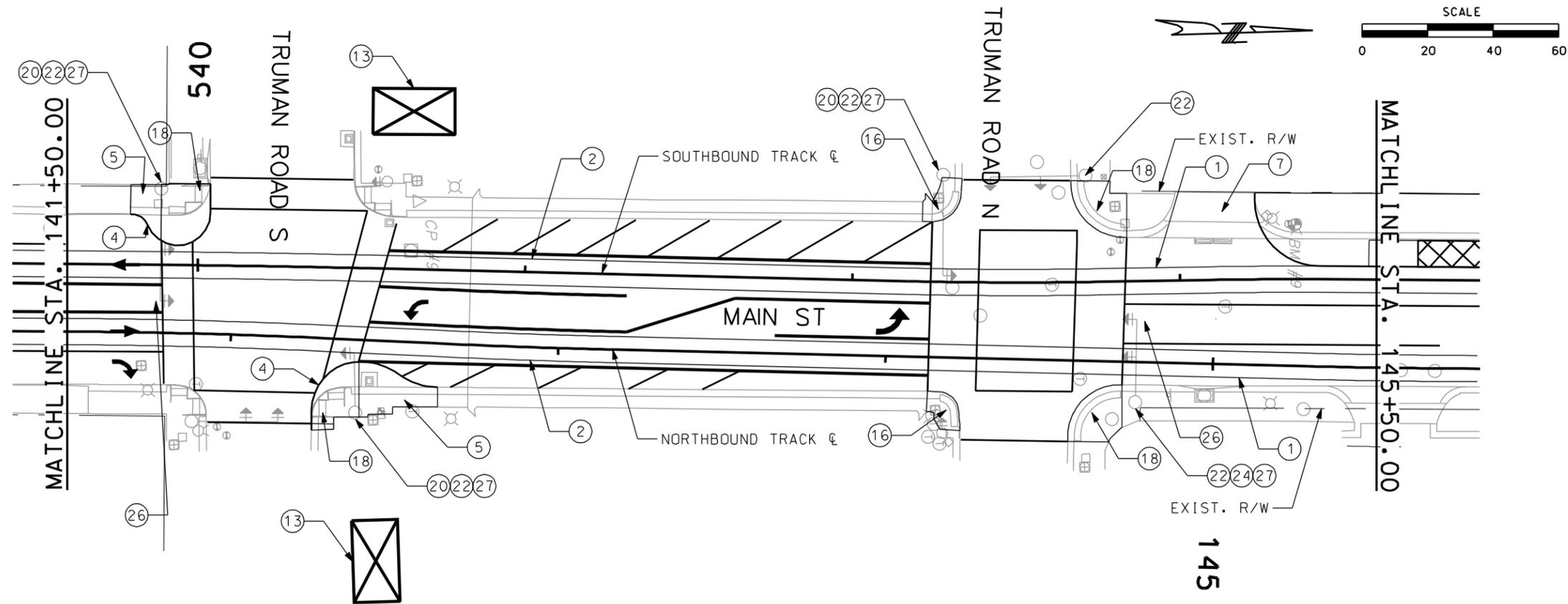
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑬ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑲ SIGNALIZE INTERSECTION.



GENERAL NOTES

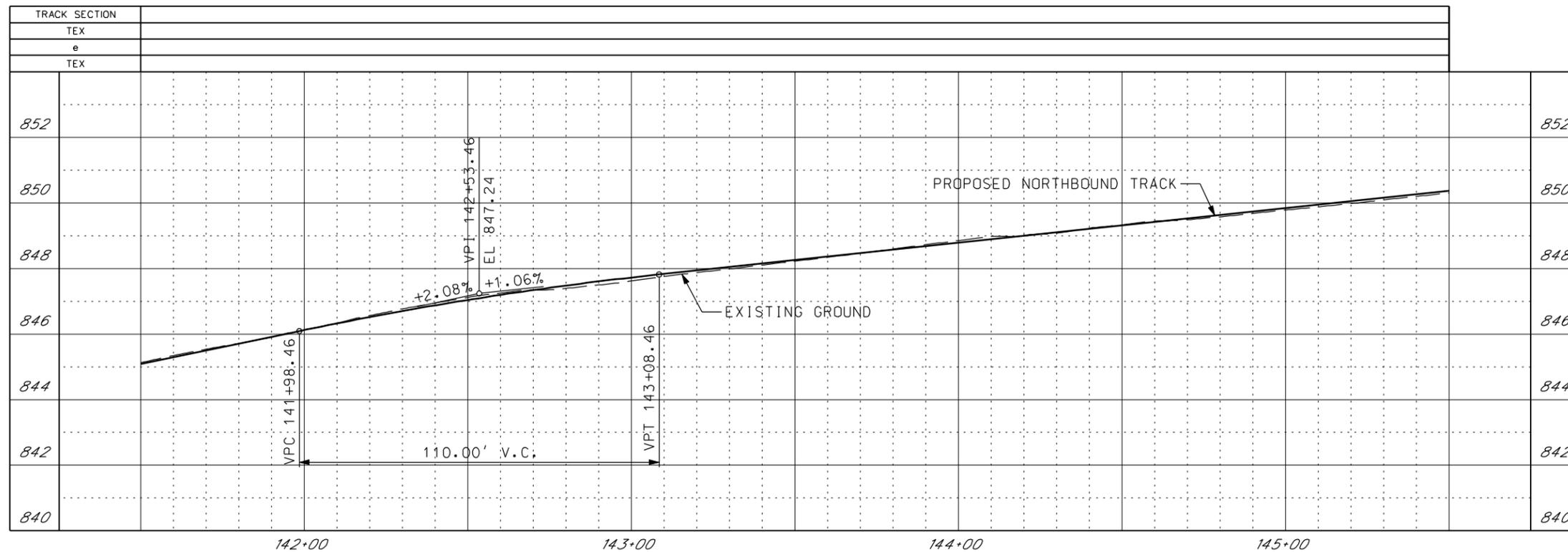
- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C11	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY		APPROVED BY			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 16TH STREET STA. 137+50.00 TO 141+50.00	SHEET NO. C11
ISSUE	DATE	DESCRIPTION																												
DESIGNED BY	DATE APPROVED																													
DRAWN BY	DIV. ENGINEER																													
CHECKED BY																														
APPROVED BY																														



CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ② CONSTRUCT TRACK ON STRUCTURE (SEE DETAIL 2, SHEET C35).
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑦ MAINTAIN EXISTING DRIVEWAY.
- ⑬ POTENTIAL SUBSTATION LOCATION.
- ⑯ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
- ㉔ REMOVE EXISTING MAST ARM.
- ㉖ INSTALL NEW SIGNAL POLE WITHIN RAISED MEDIAN.
- ㉗ RELOCATE EXISTING VIDEO DETECTION.



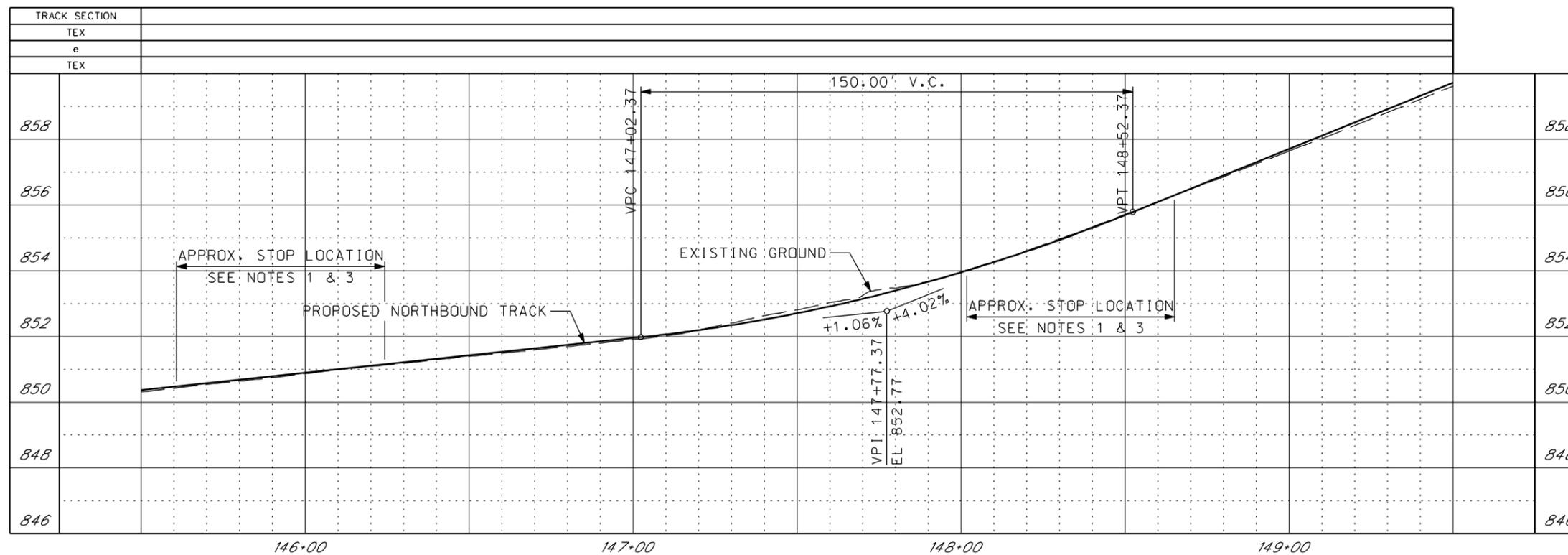
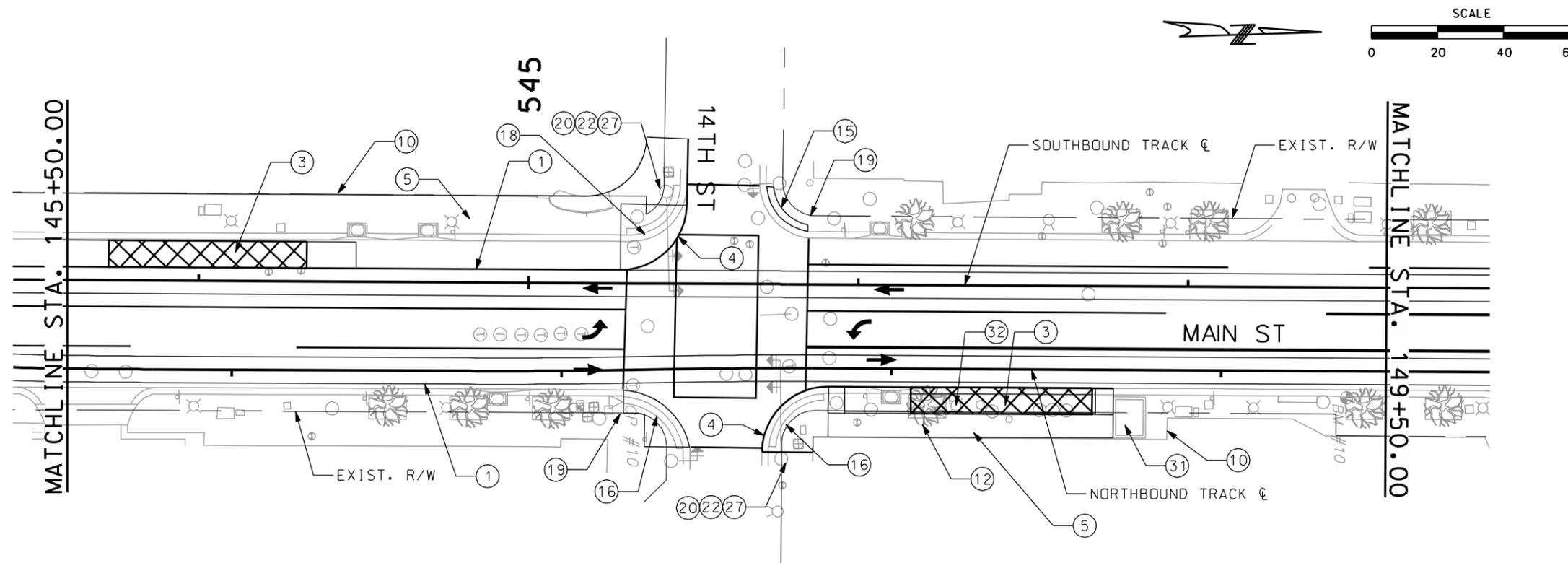
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C12	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY		APPROVED BY			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE TRUMAN ROAD STA. 141+50.00 TO 145+50.00</p>	SHEET NO. C12
ISSUE	DATE	DESCRIPTION																												
DESIGNED BY	DATE APPROVED																													
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APPROVED BY																														
SHEET FILE: PlanProfile_12.dgn		PLOT DATE: 8/3/2012 1:12:28 PM		PLOT DATE: 8/3/2012 1:12:28 PM BY: dbernard																										

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑫ REMOVE EXISTING TREE WELL AND TREE.
- ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
- ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑰ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑱ INSTALL NEW PED POLE WITH SIDE OF POLE SIGNAL HEAD.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
- ㉓ RELOCATE EXISTING VIDEO DETECTION.
- ㉔ MAINTAIN EXISTING VAULT.
- ㉕ RELOCATE EXISTING LIGHT POLE.



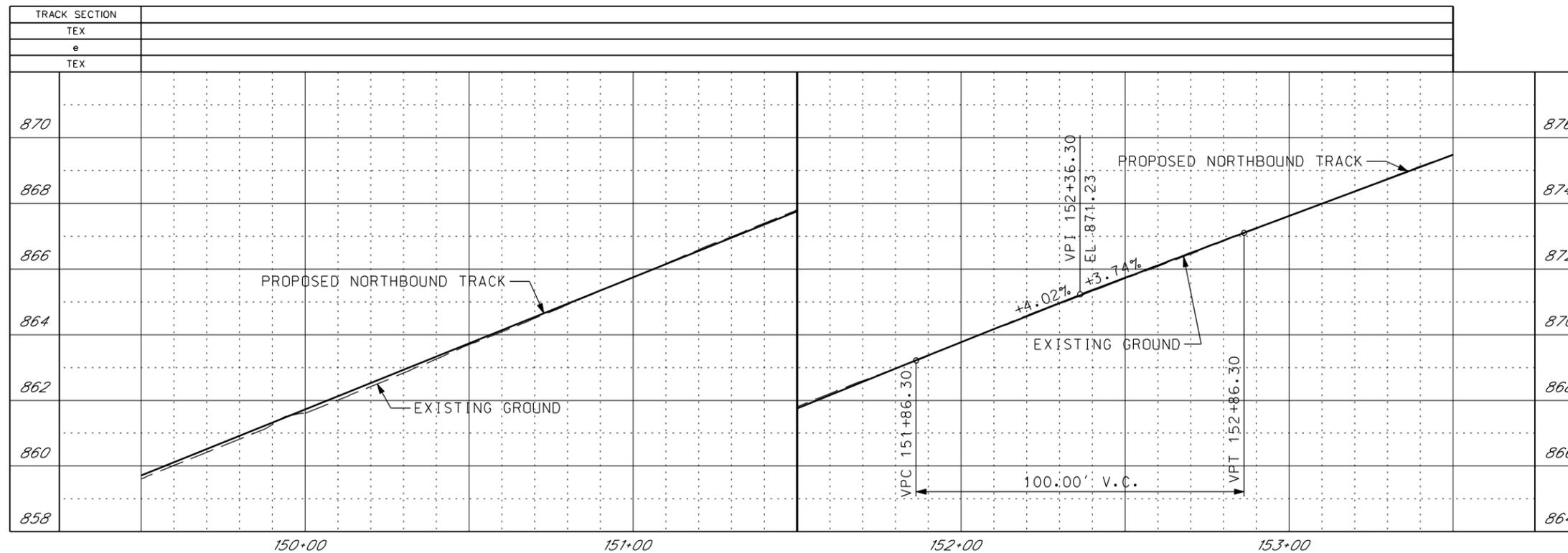
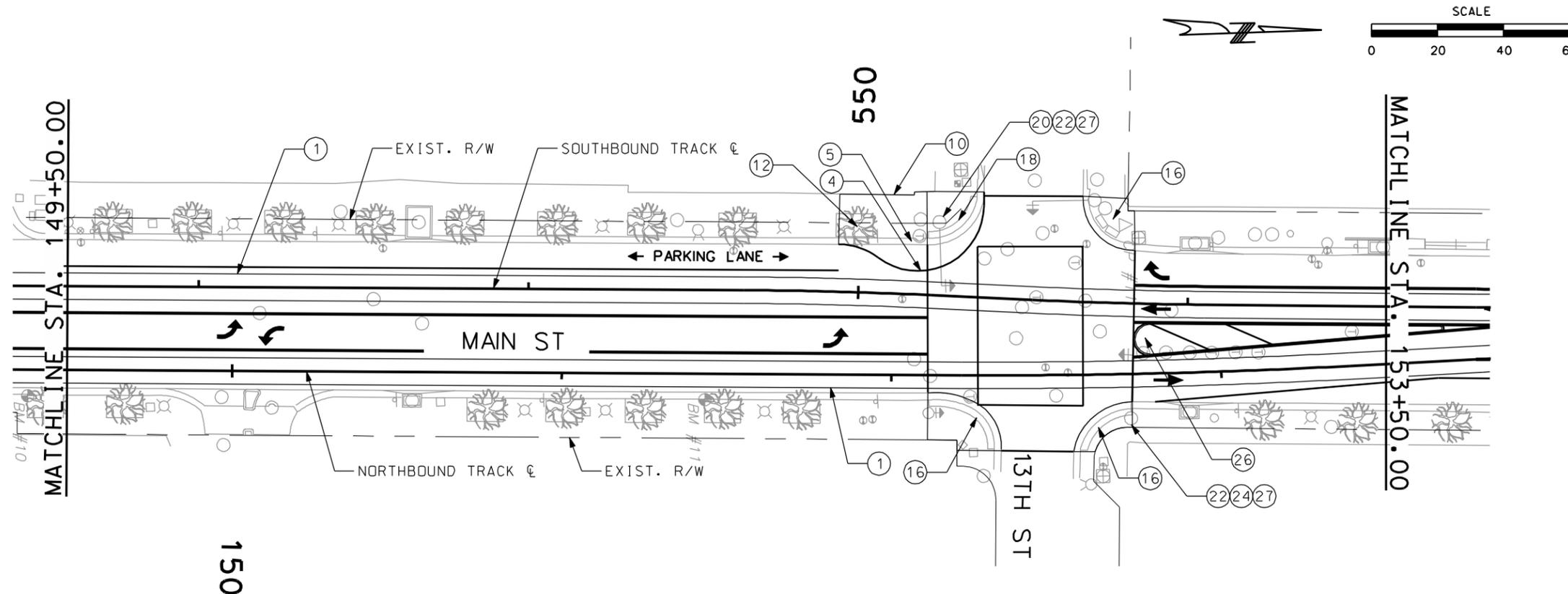
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C13	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 14TH STREET STA. 145+50.00 TO 149+50.00	SHEET NO. C13
SHEET FILE: PlanProfile_13.dgn PLOT DATE: 8/3/2012 1:12:44 PM					

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑫ REMOVE EXISTING TREE WELL AND TREE.
- ⑯ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
- ㉔ REMOVE EXISTING MAST ARM.
- ㉖ INSTALL NEW SIGNAL POLE WITHIN RAISED MEDIAN.
- ㉗ RELOCATE EXISTING VIDEO DETECTION.



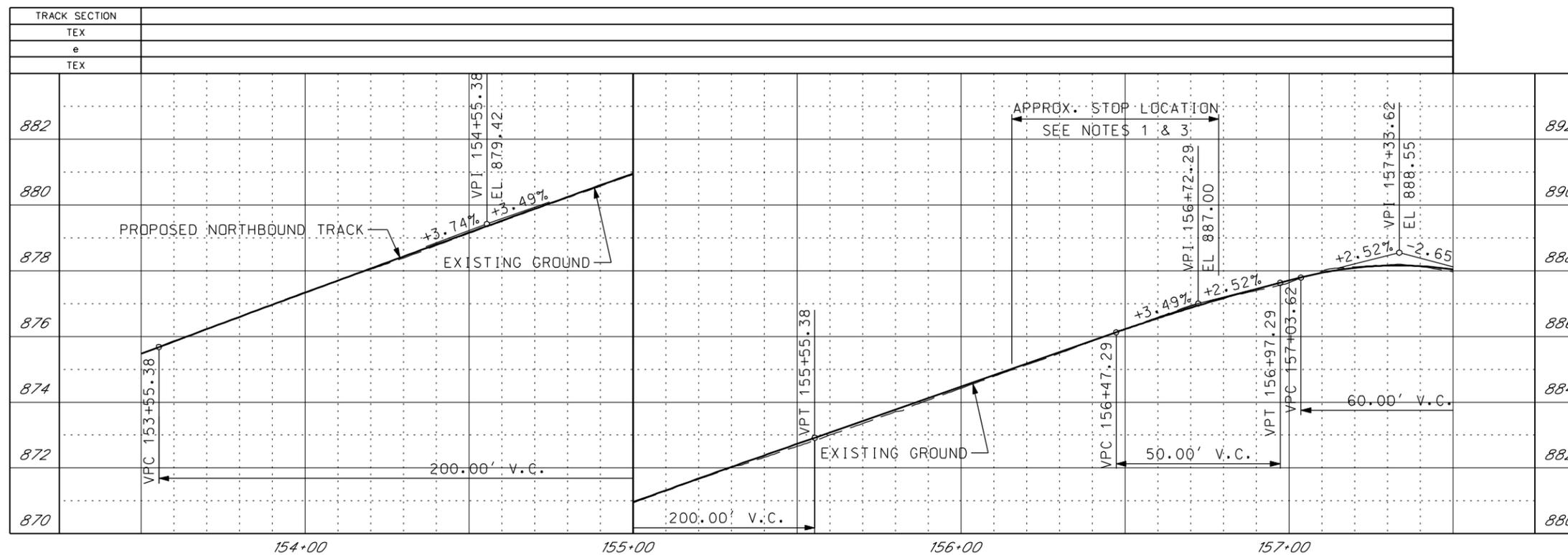
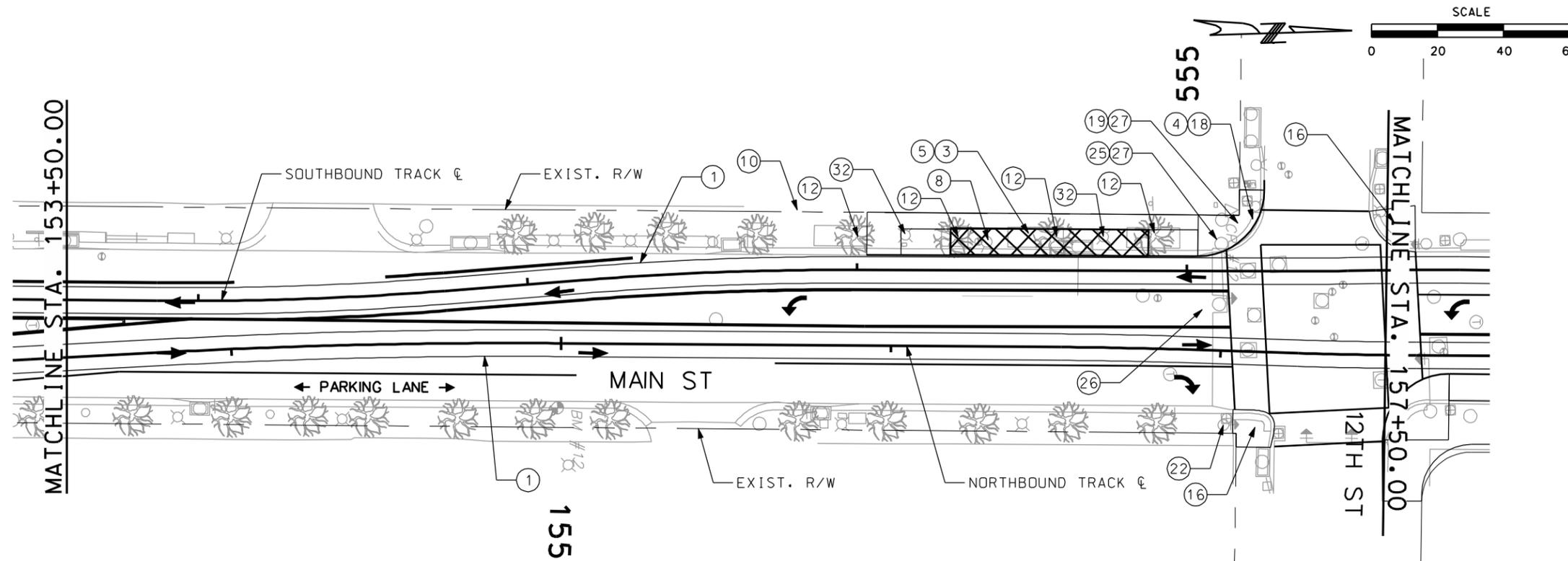
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C14	ISSUE DATE DESCRIPTION _____ _____ _____	DESIGNED BY _____ DATE APPROVED _____ DRAWN BY _____ DIV. ENGINEER _____ CHECKED BY _____ APPROVED BY _____			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 13TH STREET STA. 149+50.00 TO 153+50.00	SHEET NO. C14	
SHEET FILE: PlanProfile_14.dgn    PLOT DATE: 8/3/2012 1:13:02 PM    PLOT DATE: 8/3/2012 1:13:02 PM    BY: dbernard									

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑧ RELOCATE EXISTING FIRE HYDRANT.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑫ REMOVE EXISTING TREE WELL AND TREE.
- ⑯ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑰ SIDEWALK RAMP TO BE REPAIRED TO MEET ADA STANDARDS.
- ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑲ INSTALL NEW PED POLE WITH SIDE OF POLE SIGNAL HEAD.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
- ㉕ REMOVE EXISTING SIGNAL POLE, MAST ARM, AND ASSOCIATED EQUIPMENT.
- ㉖ INSTALL NEW SIGNAL POLE WITHIN RAISED MEDIAN.
- ㉗ RELOCATE EXISTING VIDEO DETECTION.
- ㉘ RELOCATE EXISTING LIGHT POLE.



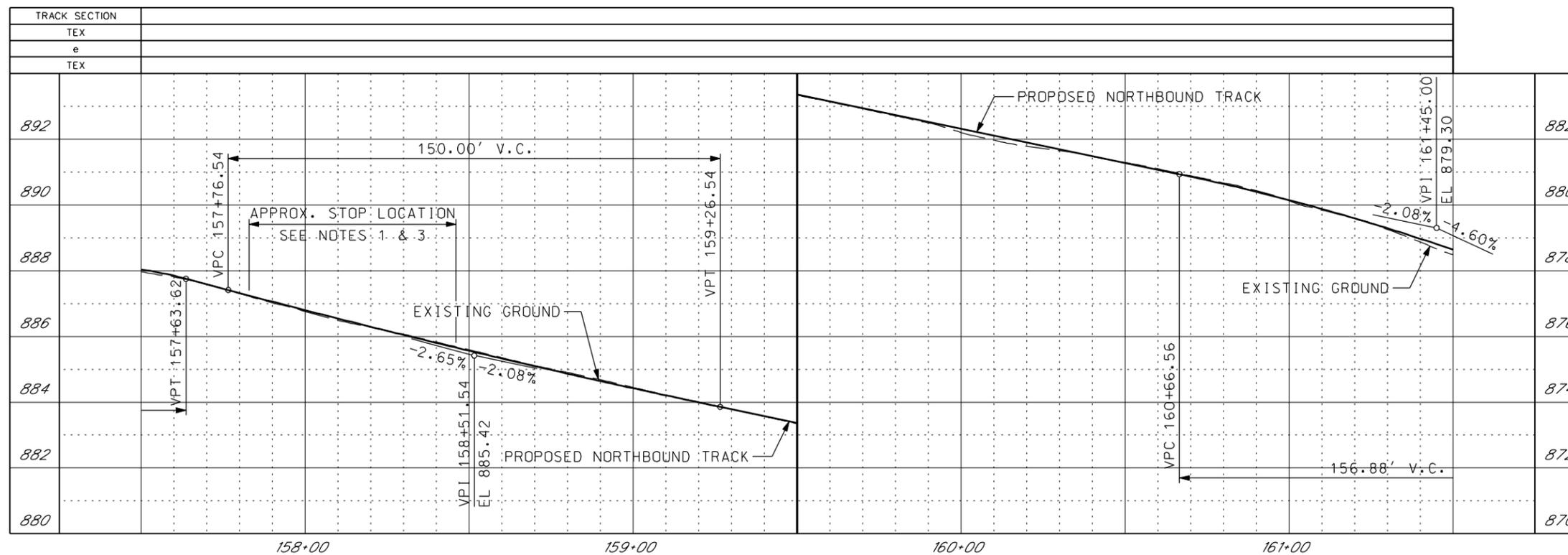
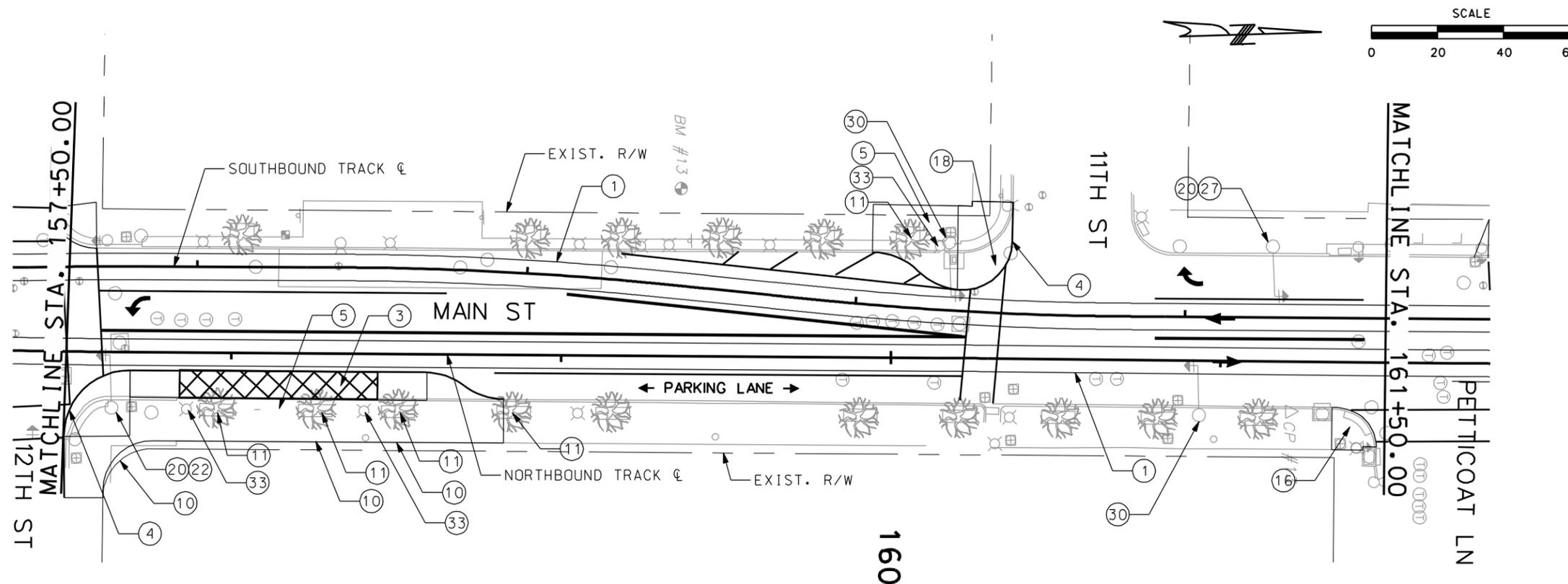
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C15	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 12TH STREET STA. 153+50.00 TO 157+50.00	SHEET NO. C15
		DRAWN BY DIV. ENGINEER				
		CHECKED BY				
		APPROVED BY				
SHEET FILE: PlanProfile_15.dgn		PLOT DATE: 8/3/2012 1:13:19 PM				

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑪ MAINTAIN EXISTING TREE WELL AND TREE.
- ⑬ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑮ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑯ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ⑰ RELOCATE EXISTING VIDEO DETECTION.
- ⑳ REMOVE EXISTING INTERSECTION SIGNALS.
- ㉓ MAINTAIN EXISTING LIGHT POLE.



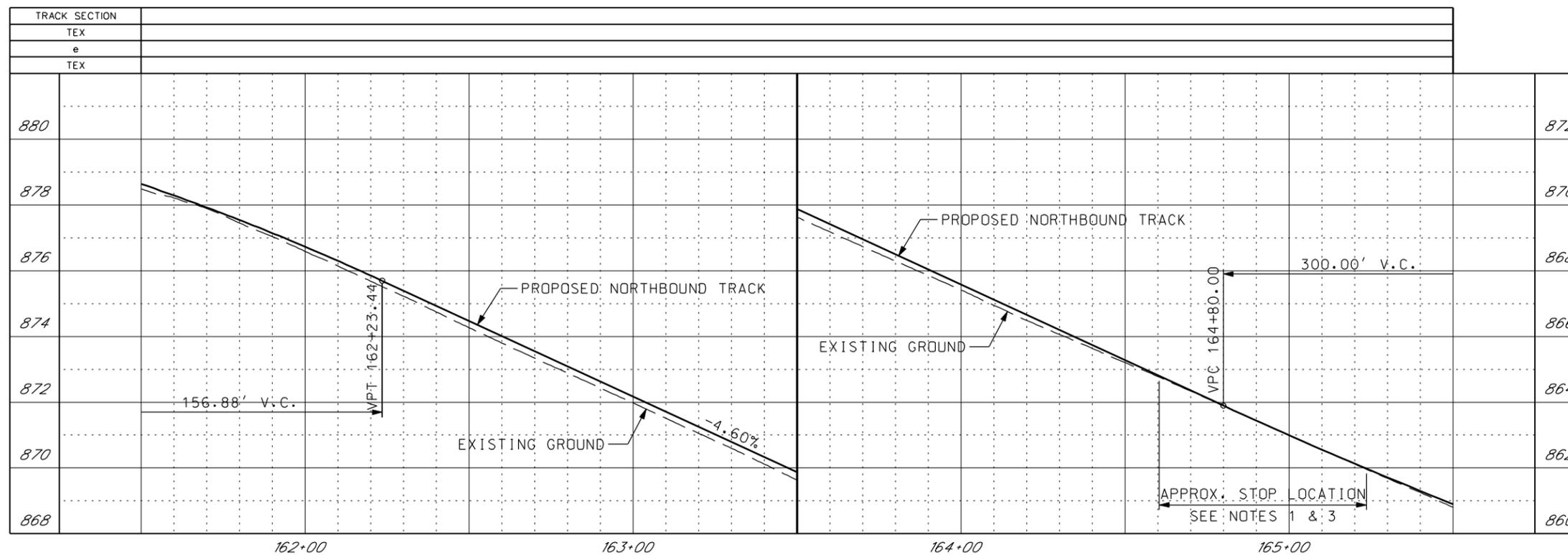
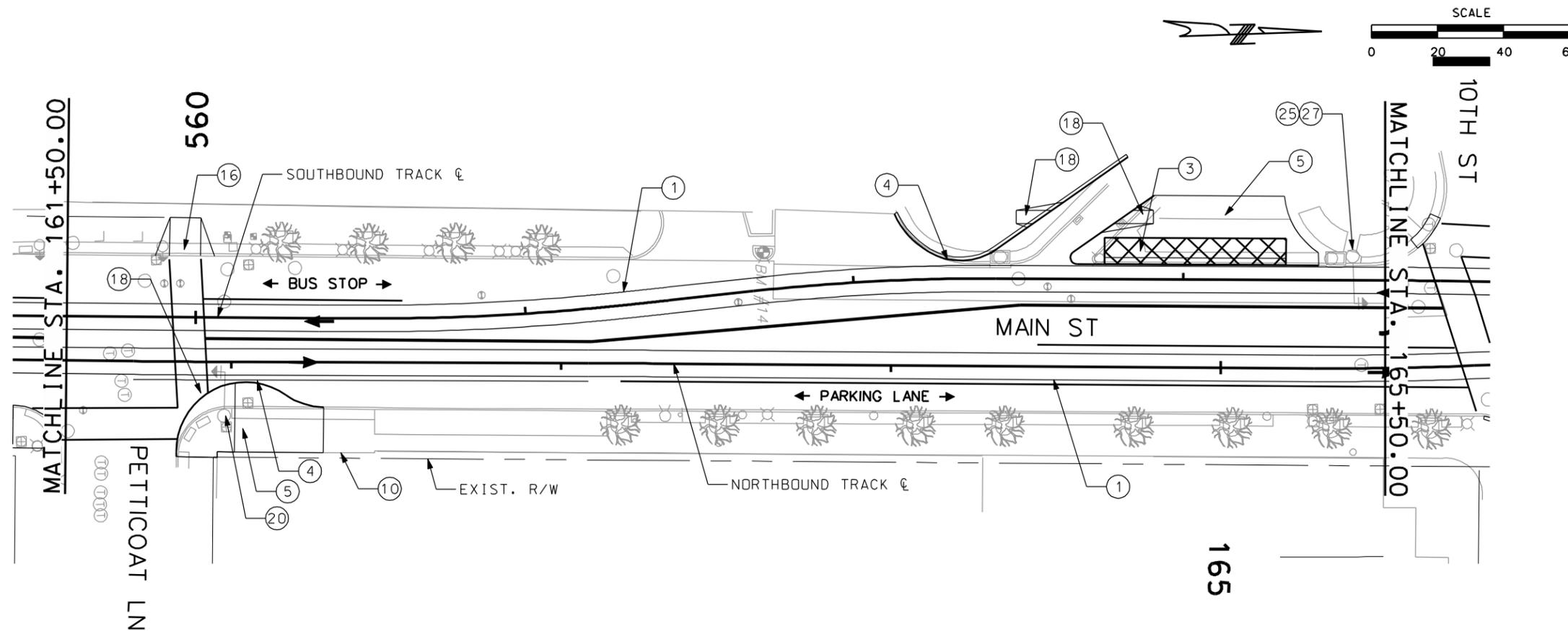
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C16	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 11TH STREET STA. 157+50.00 TO 161+50.00	SHEET NO. C16
SHEET FILE: PlanProfile_16.dgn PLOT DATE: 8/3/2012 1:13:36 PM					

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑬ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑮ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑰ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ⑲ REMOVE EXISTING SIGNAL POLE, MAST ARM, AND ASSOCIATED EQUIPMENT.
- ⑳ RELOCATE EXISTING VIDEO DETECTION.



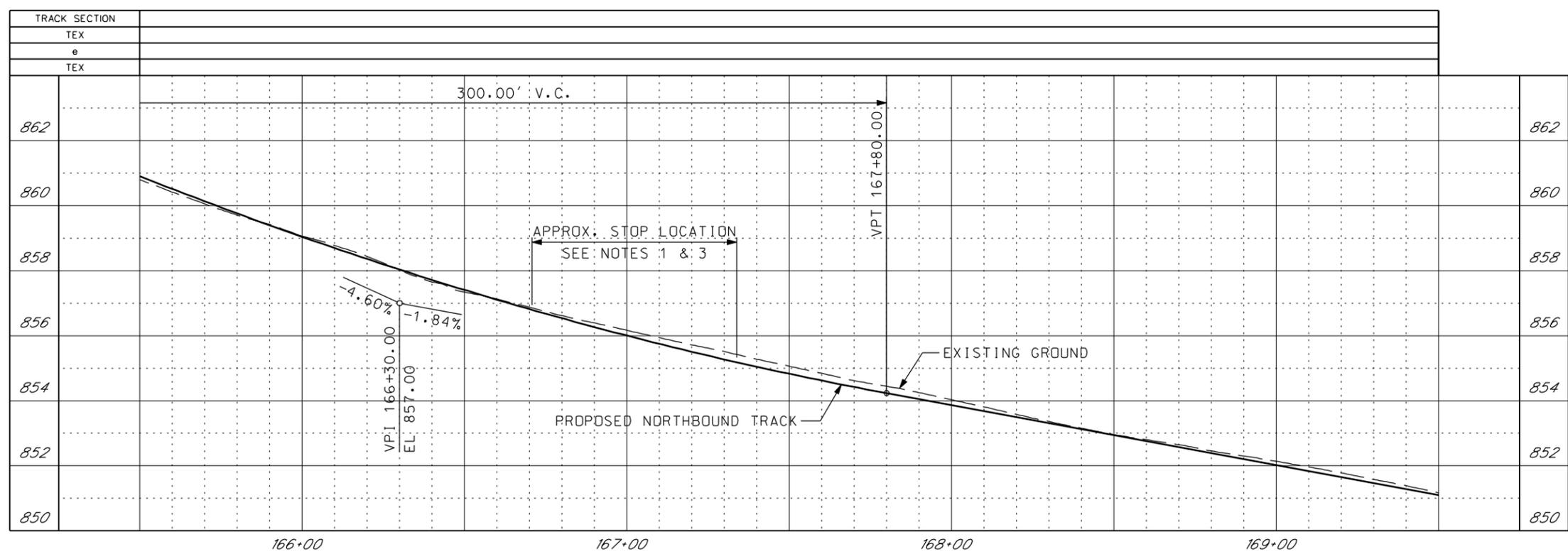
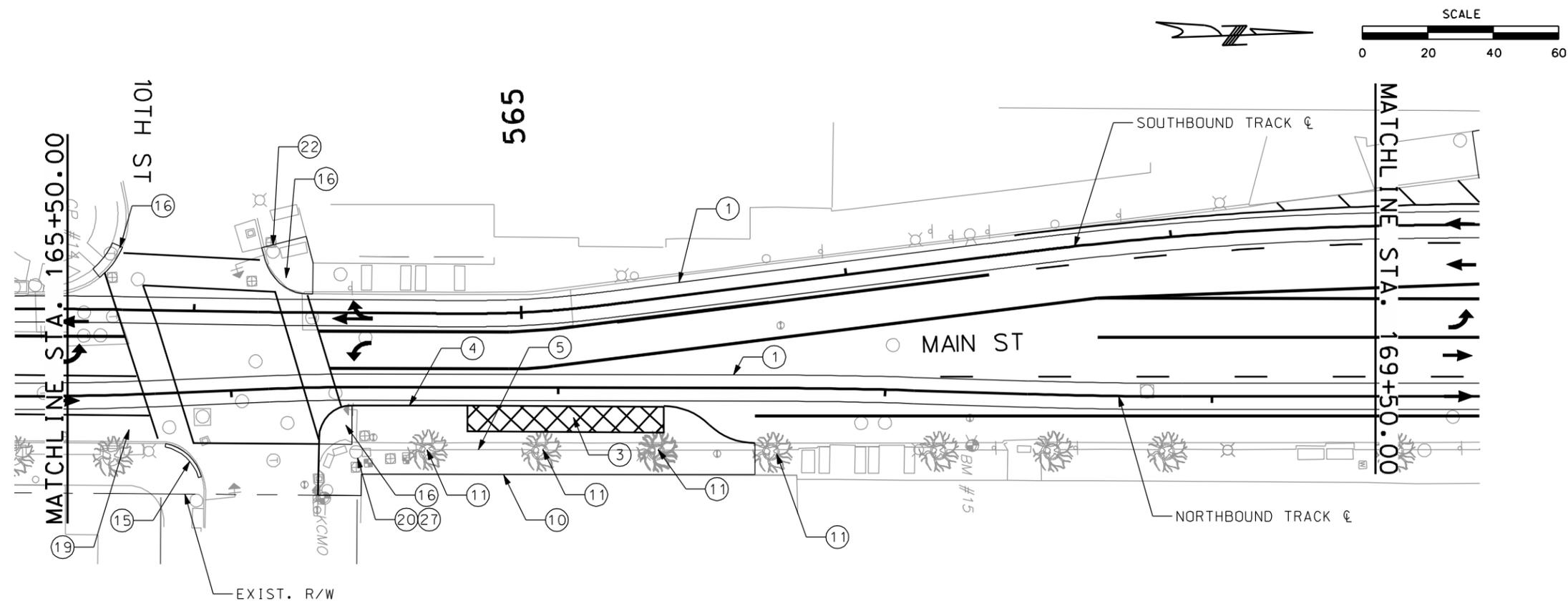
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C17	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE PETTICOAT LANE STA. 161+50.00 TO 165+50.00	SHEET NO. C17
		DRAWN BY	DIV. ENGINEER				
		CHECKED BY					
		APPROVED BY					
SHEET FILE: PlanProfile_17.dgn		PLOT DATE: 8/3/2012 1:13:53 PM					

CONSTRUCTION NOTES

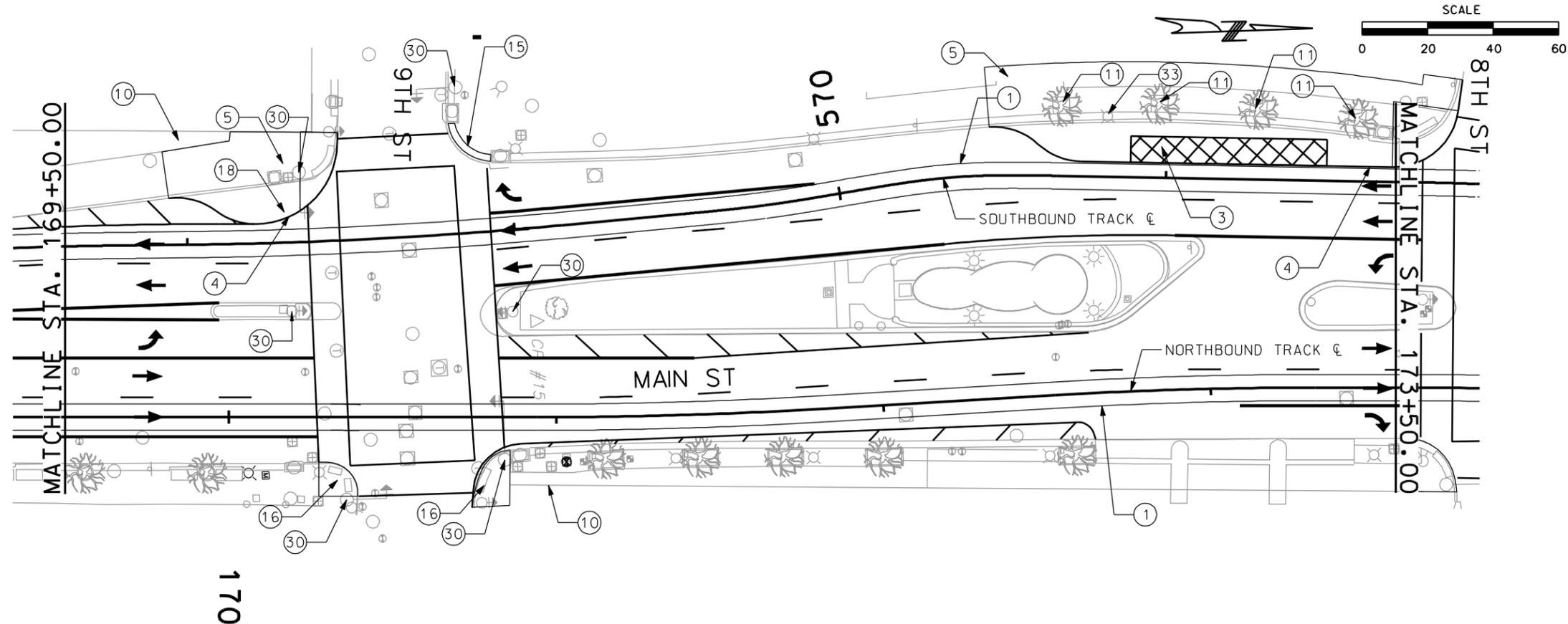
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑪ MAINTAIN EXISTING TREE WELL AND TREE.
- ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
- ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑲ INSTALL NEW PED POLE WITH SIDE OF POLE SIGNAL HEAD.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
- ㉓ RELOCATE EXISTING VIDEO DETECTION.



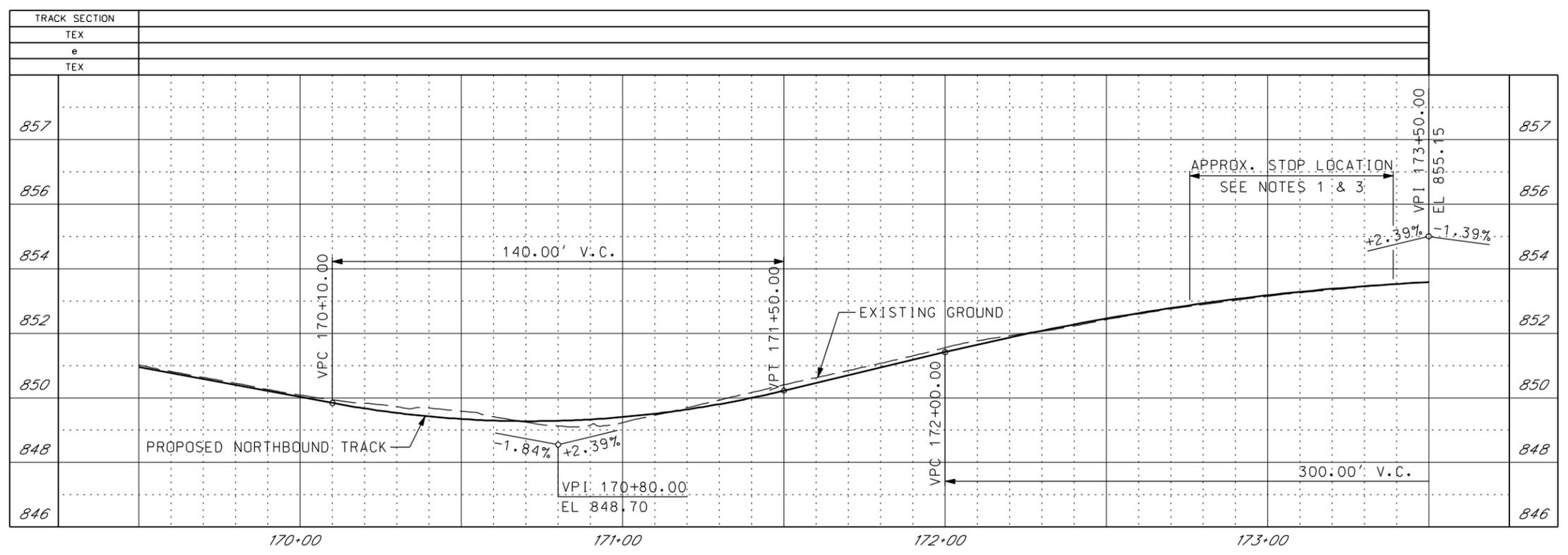
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
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SHEET NO. C18	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 10TH STREET STA. 165+50.00 TO 169+50.00	SHEET NO. C18
SHEET FILE: PlanProfile_18.dgn PLOT DATE: 8/3/2012 1:14:10 PM					

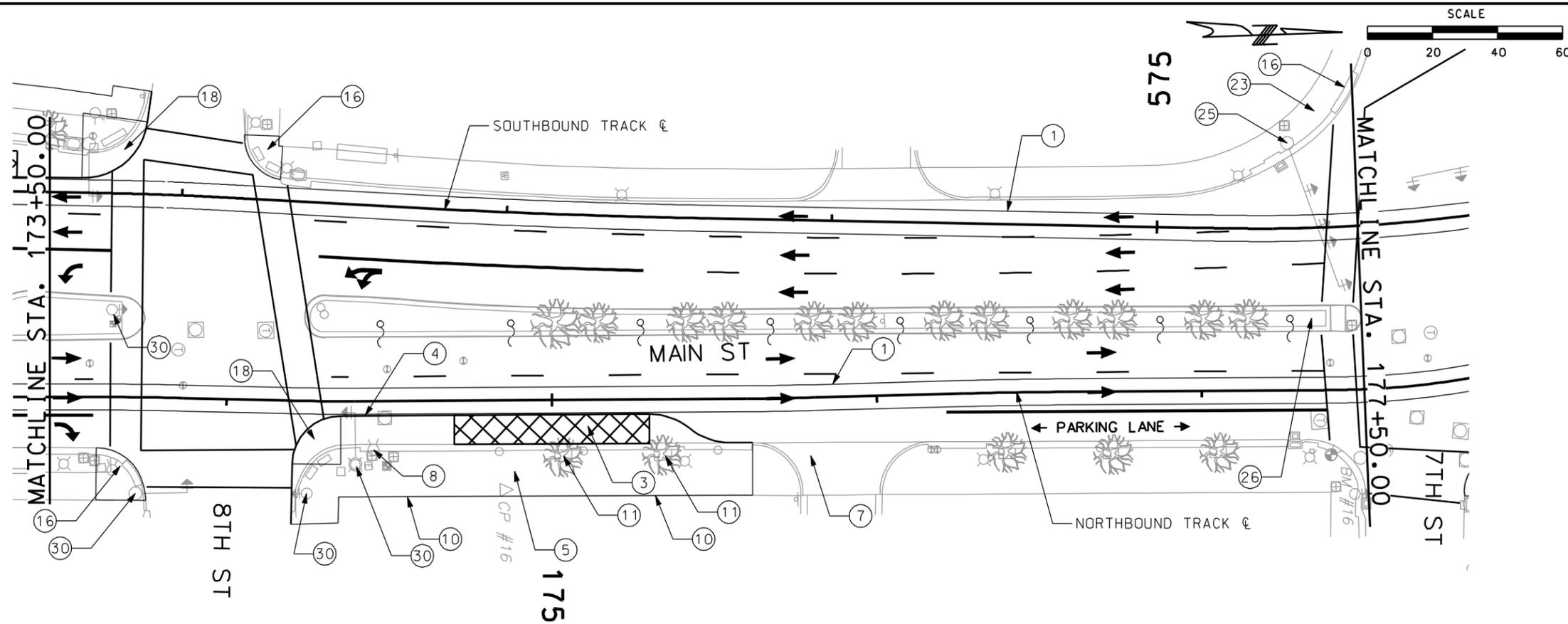


- CONSTRUCTION NOTES**
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
  - ③ CONSTRUCT STREETCAR STOP - SIDE.
  - ④ CONSTRUCT CURB AND GUTTER.
  - ⑤ CONSTRUCT SIDEWALK.
  - ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
  - ⑪ MAINTAIN EXISTING TREE WELL AND TREE.
  - ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
  - ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
  - ⑰ CONSTRUCT ADA COMPLIANT CURB RAMP.
  - ⑳ REMOVE EXISTING INTERSECTION SIGNALS.
  - ㉓ MAINTAIN EXISTING LIGHT POLE.



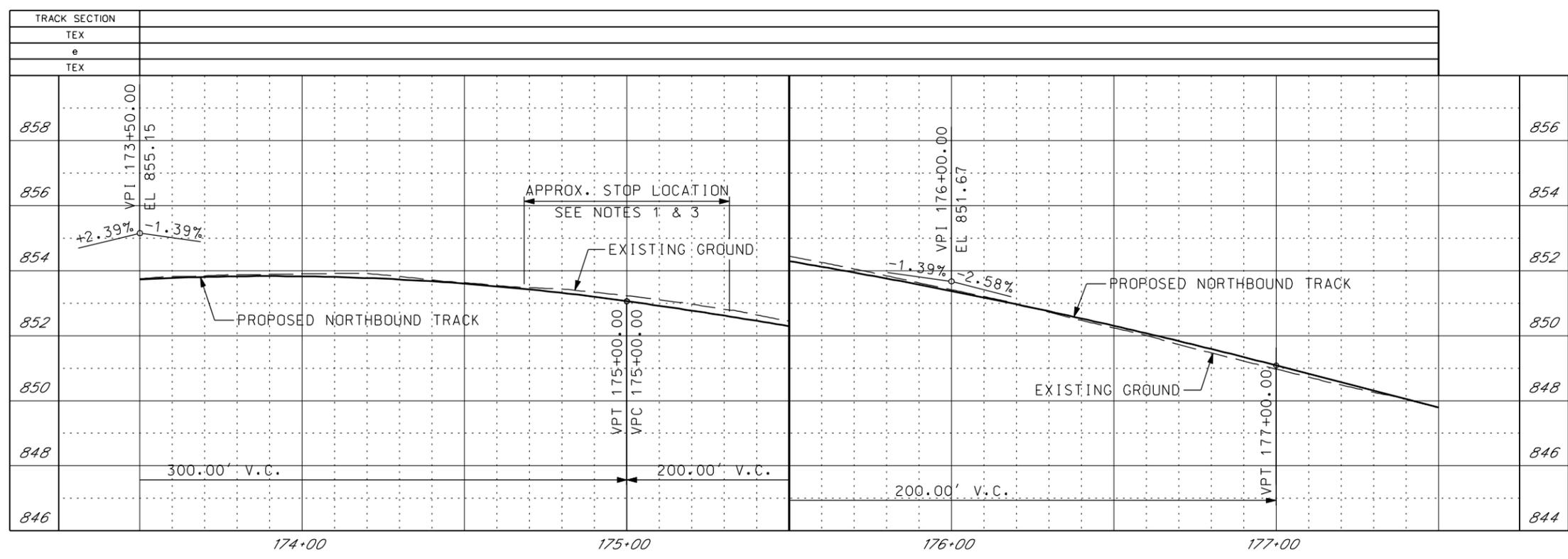
- GENERAL NOTES**
1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
  2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
  3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C19	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY		APPROVED BY			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE 9TH STREET STA. 169+50.00 TO 173+50.00</p>	SHEET NO. C19
ISSUE	DATE	DESCRIPTION																						
DESIGNED BY	DATE APPROVED																							
DRAWN BY	DIV. ENGINEER																							
CHECKED BY																								
APPROVED BY																								
SHEET FILE: PlanProfile_19.dgn		PLOT DATE: 8/3/2012 1:14:28 PM		PLOT DATE: 8/3/2012 1:14:28 PM BY: dbernard																				



CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑦ MAINTAIN EXISTING DRIVEWAY.
- ⑧ RELOCATE EXISTING FIRE HYDRANT.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑪ MAINTAIN EXISTING TREE WELL AND TREE.
- ⑬ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑮ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑰ INSTALL NEW SIGNAL POLE WITH MAST ARM.
- ⑲ REMOVE EXISTING SIGNAL POLE, MAST ARM, AND ASSOCIATED EQUIPMENT.
- ⑳ INSTALL NEW SIGNAL POLE WITHIN RAISED MEDIAN.
- ㉑ REMOVE EXISTING INTERSECTION SIGNALS.



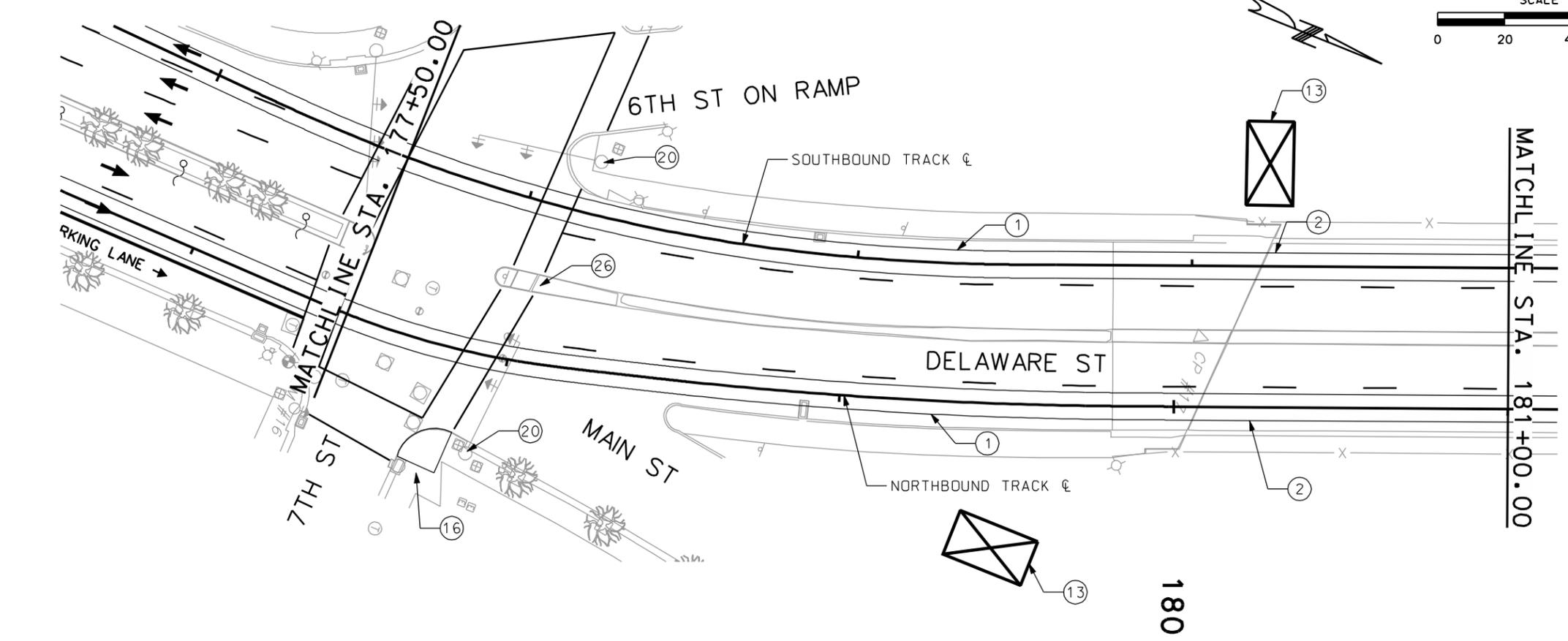
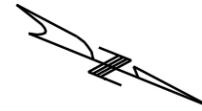
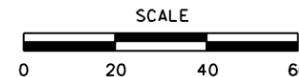
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C20	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 8TH STREET STA. 173+50.00 TO 177+50.00	SHEET NO. C20
SHEET FILE: PlanProfile_20.dgn PLOT DATE: 8/3/2012 1:14:47 PM		PLOT DATE: 8/3/2012 1:14:47 PM BY: dbernard				

CONSTRUCTION NOTES

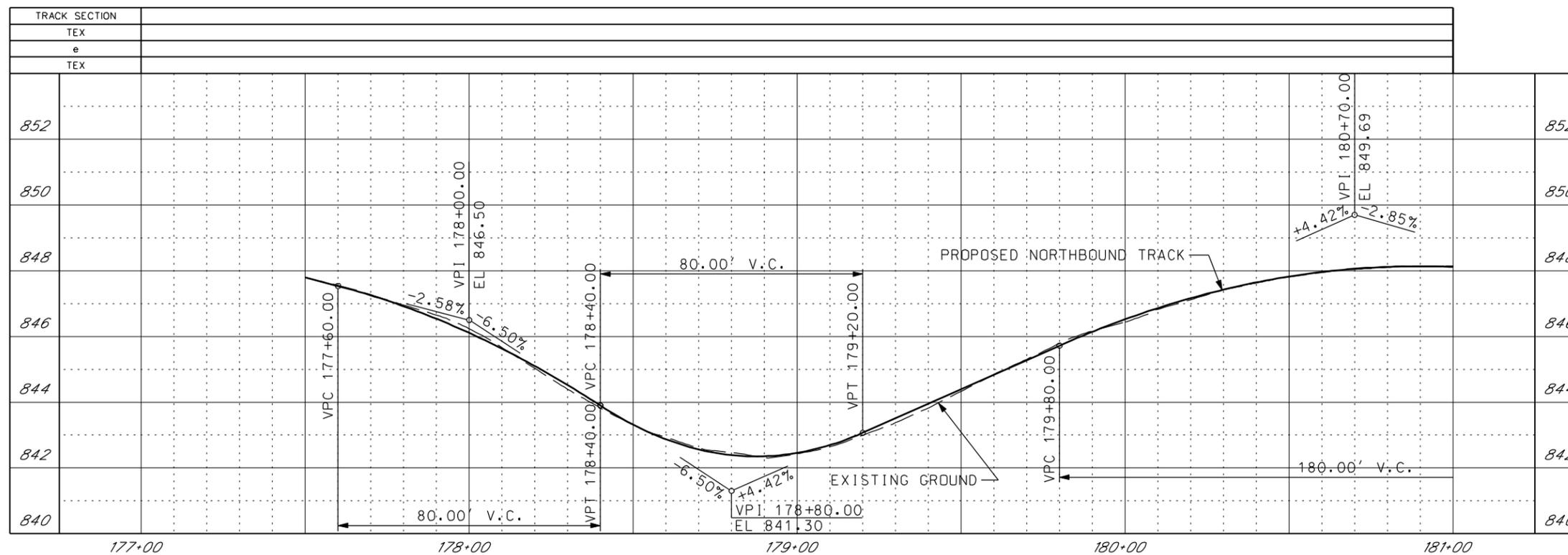
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ② CONSTRUCT TRACK ON STRUCTURE (SEE DETAIL 2, SHEET C35).
- ⑬ POTENTIAL SUBSTATION LOCATION.
- ⑯ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉔ INSTALL NEW SIGNAL POLE WITHIN RAISED MEDIAN.



180

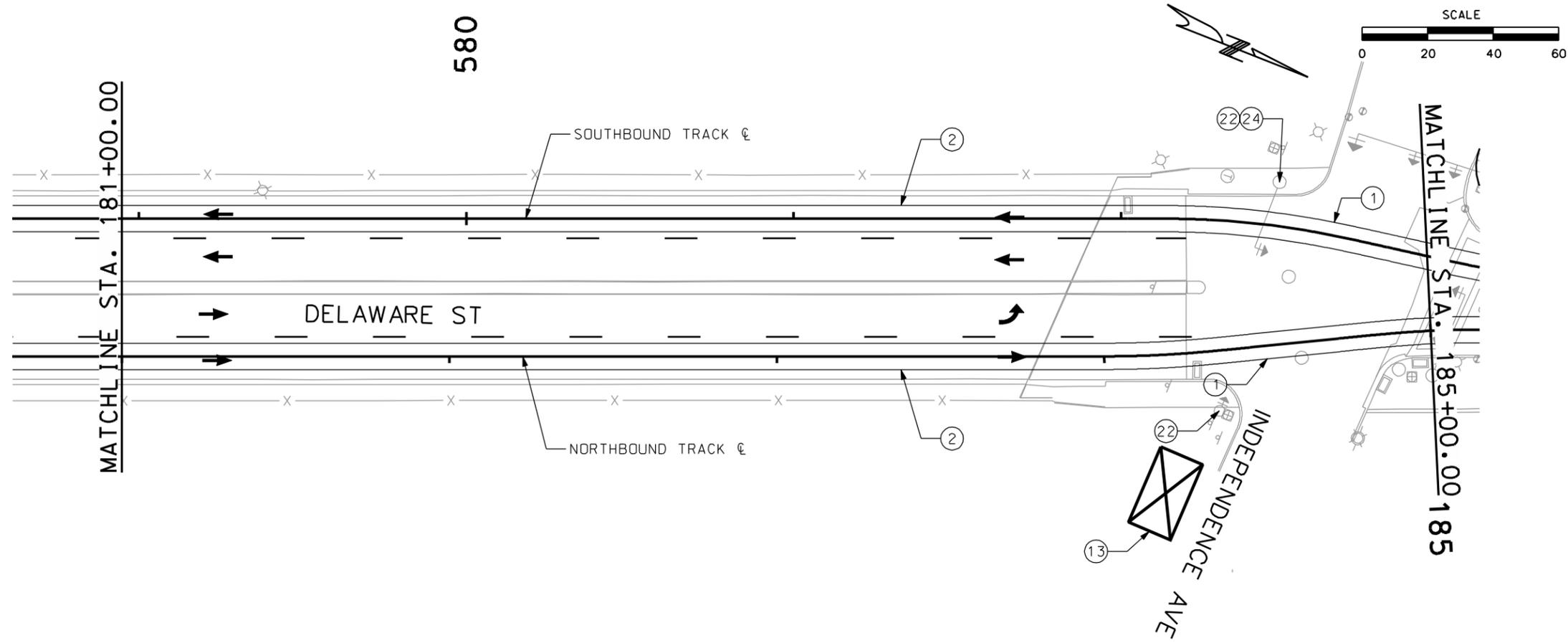
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

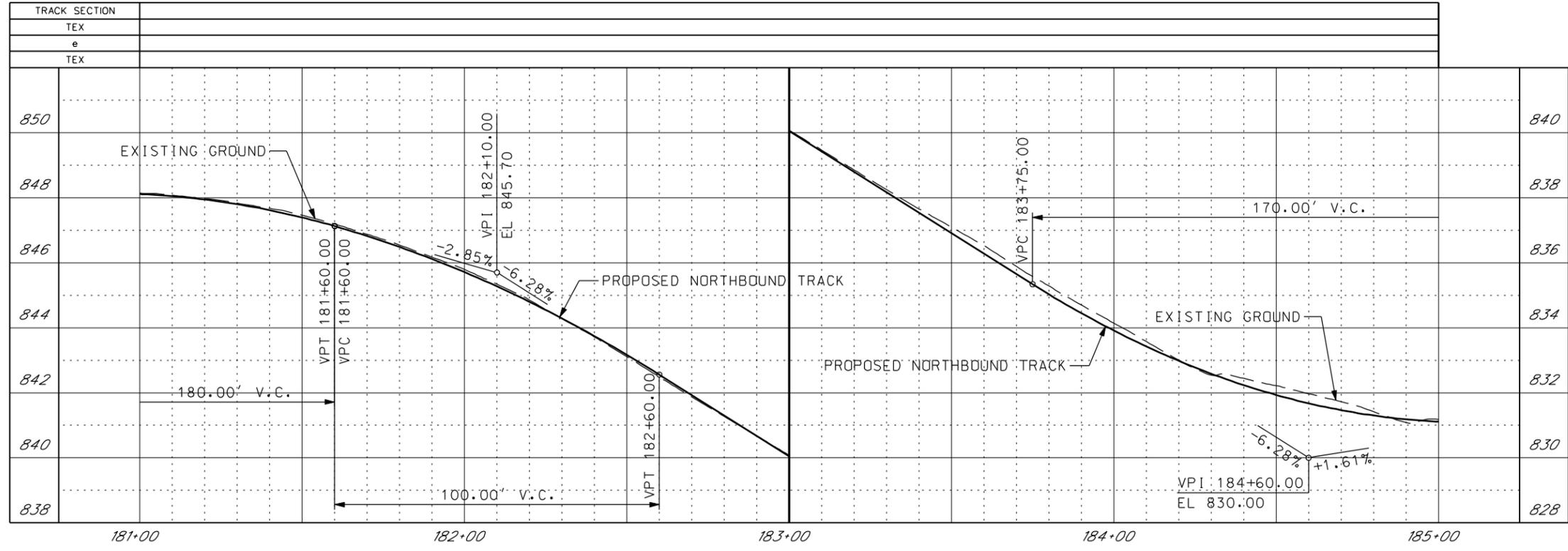


<p>SHEET NO. C21</p>	<p>ISSUE DATE DESCRIPTION</p>	<p>DESIGNED BY DATE APPROVED</p>	<p>DRAWN BY DIV. ENGINEER</p>	<p>CHECKED BY</p>	<p>APPROVED BY</p>		<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE 7TH STREET STA. 177+50.00 TO 181+00.00</p>	<p>SHEET NO. C21</p>
<p>SHEET FILE: PlanProfile_21.dgn PLOT DATE: 8/3/2012 1:15:04 PM</p>		<p>PLOT DATE: 8/3/2012 1:15:04 PM BY: dbernard</p>							

580

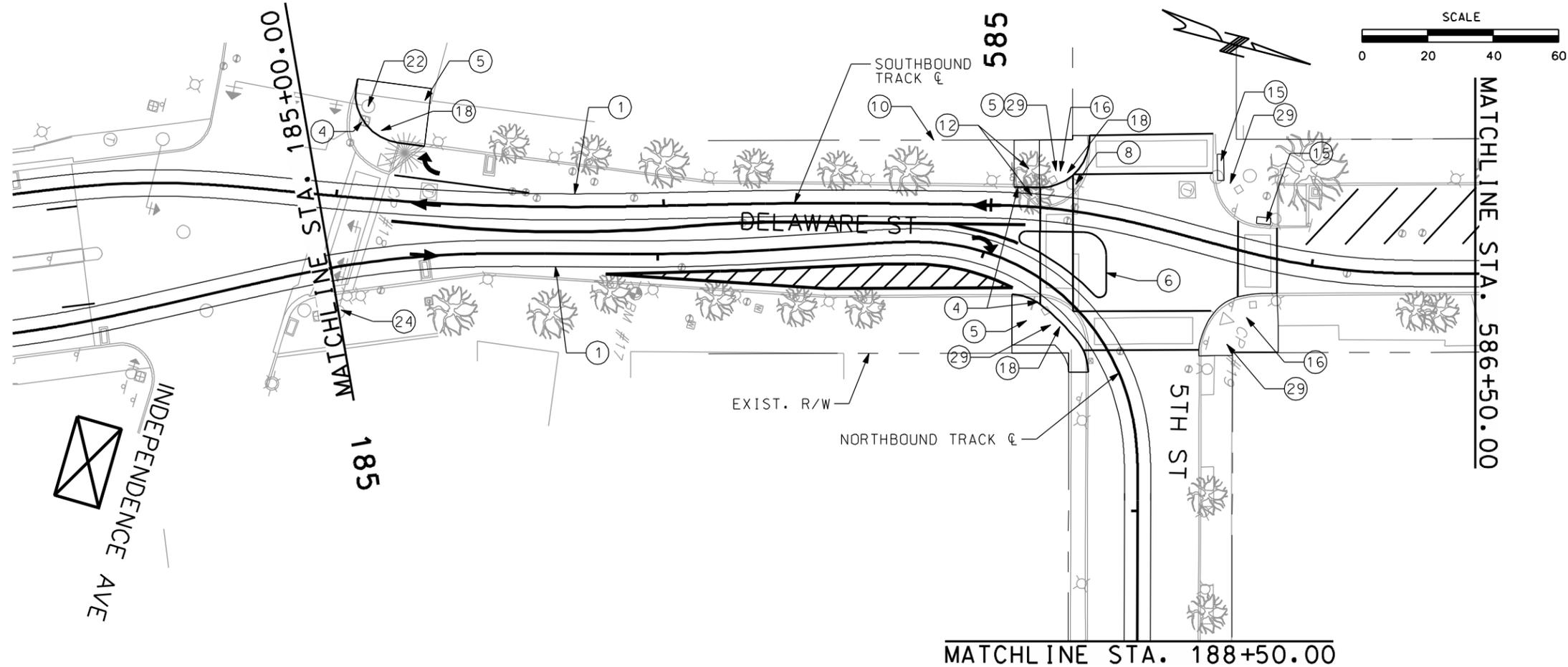


- CONSTRUCTION NOTES
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
  - ② CONSTRUCT TRACK ON STRUCTURE (SEE DETAIL 2, SHEET C35).
  - ⑬ POTENTIAL SUBSTATION LOCATION.
  - ⑳ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
  - ㉔ REMOVE EXISTING MAST ARM.



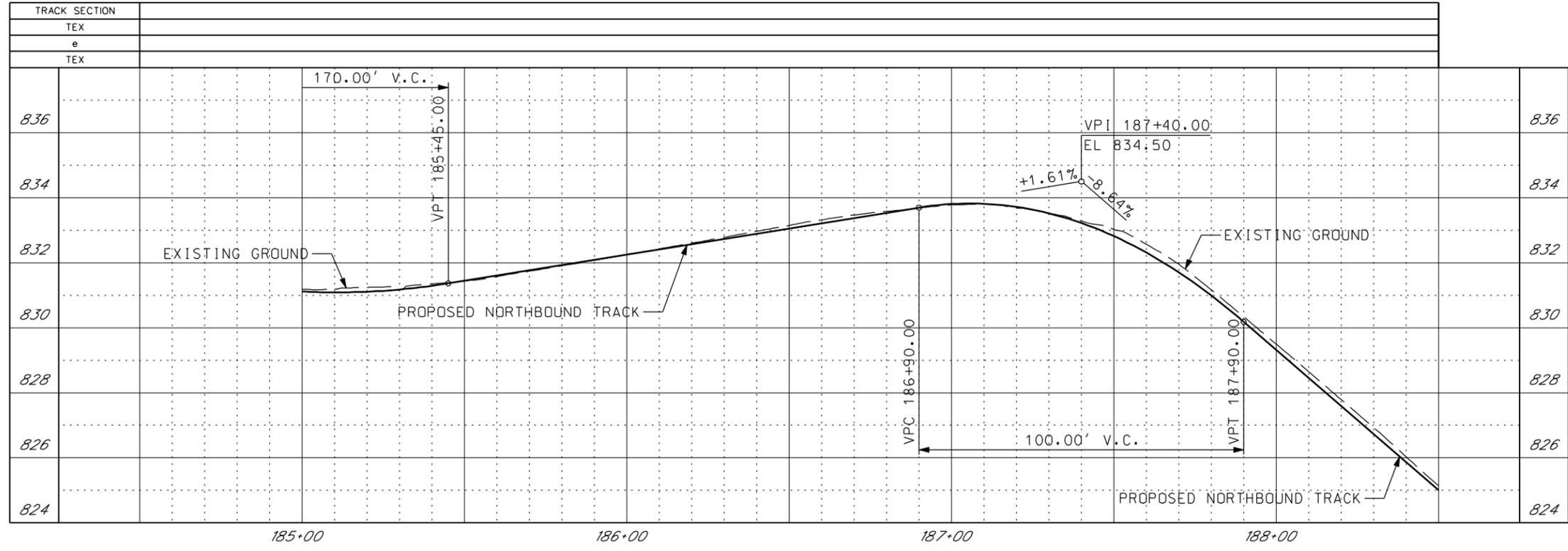
- GENERAL NOTES
- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
  - 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C22	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE INDEPENDENCE AVENUE STA. 181+00.00 TO 185+00.00	SHEET NO. C22
SHEET FILE: PlanProfile_22.dgn PLOT DATE: 8/3/2012 1:15:19 PM						
PLOT DATE: 8/3/2012 1:15:19 PM BY: dbernard						



- CONSTRUCTION NOTES**
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
  - ④ CONSTRUCT CURB AND GUTTER.
  - ⑤ CONSTRUCT SIDEWALK.
  - ⑥ CONSTRUCT RAISED ISLAND.
  - ⑧ RELOCATE EXISTING FIRE HYDRANT.
  - ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
  - ⑫ REMOVE EXISTING TREE WELL AND TREE.
  - ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
  - ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
  - ⑰ CONSTRUCT ADA COMPLIANT CURB RAMP.
  - ⑳ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
  - ㉔ REMOVE EXISTING MAST ARM.
  - ㉙ SIGNALIZE INTERSECTION.

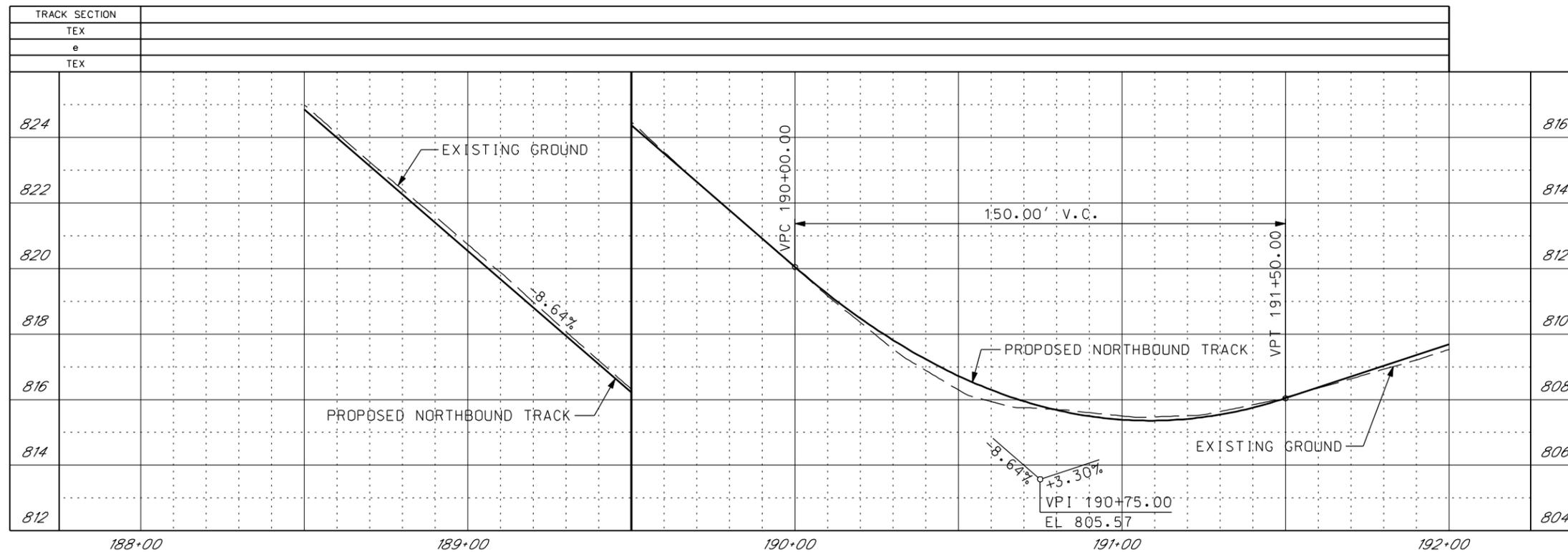
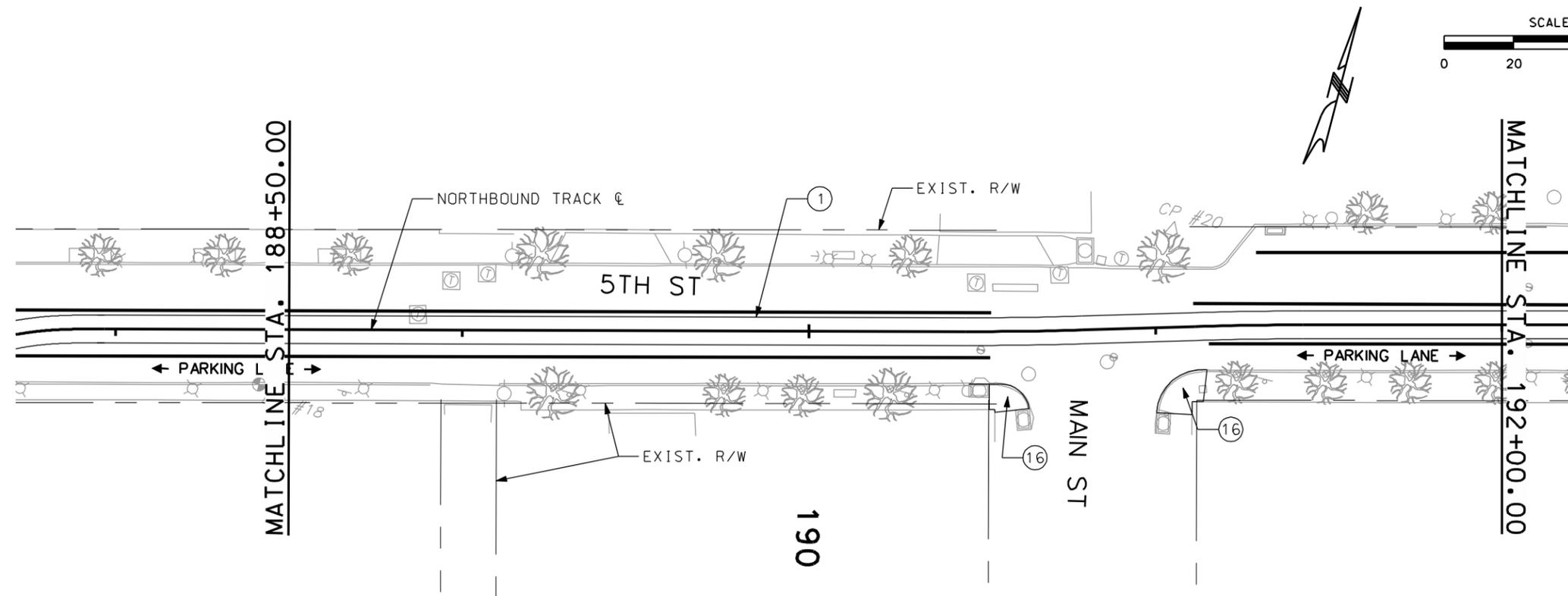
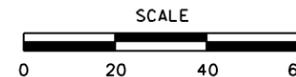
- GENERAL NOTES**
1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB/SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
  2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.



SHEET NO. C23	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY		APPROVED BY			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE 5TH &amp; DELAWARE STREET STA. 185+00.00 TO 188+50.00</p>	SHEET NO. C23
ISSUE	DATE	DESCRIPTION																												
DESIGNED BY	DATE APPROVED																													
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SHEET FILE: PlanProfile_23.dgn		PLOT DATE: 8/3/2012 1:15:36 PM		PLOT DATE: 8/3/2012 1:15:36 PM BY: dbernard		PLOT DATE: 8/3/2012 1:15:36 PM BY: dbernard																								

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ⑯ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.



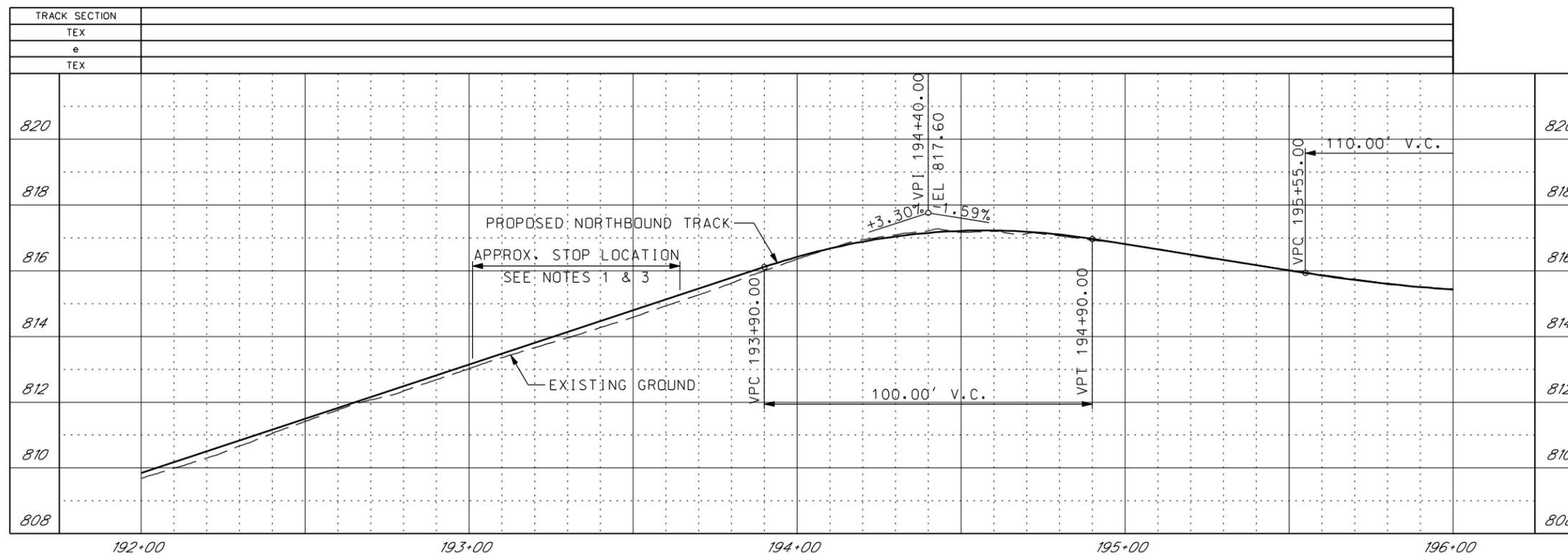
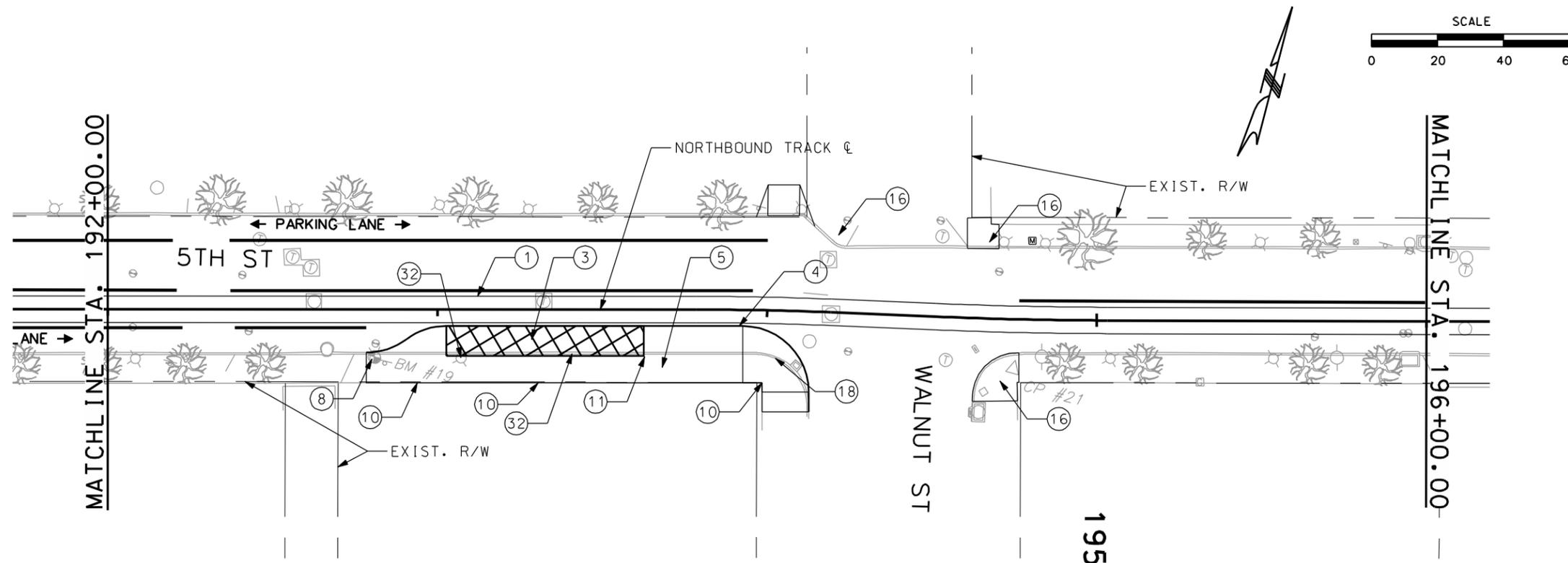
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C24	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY		APPROVED BY			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE 5TH & MAIN STREET STA. 188+50.00 TO 192+00.00	SHEET NO. C24
ISSUE	DATE	DESCRIPTION																												
DESIGNED BY	DATE APPROVED																													
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CONSTRUCTION NOTES

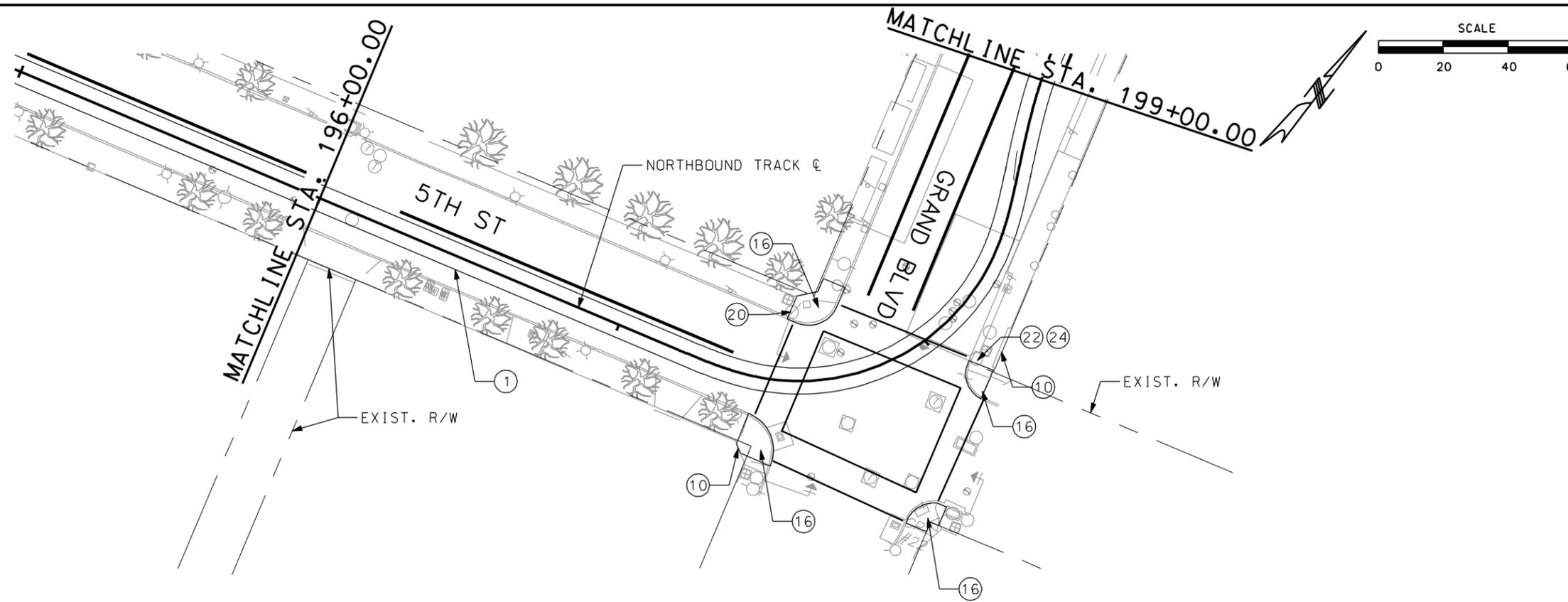
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑧ RELOCATE EXISTING FIRE HYDRANT.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑪ MAINTAIN EXISTING TREE WELL AND TREE.
- ⑬ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑮ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑳ RELOCATE EXISTING LIGHT POLE.



GENERAL NOTES

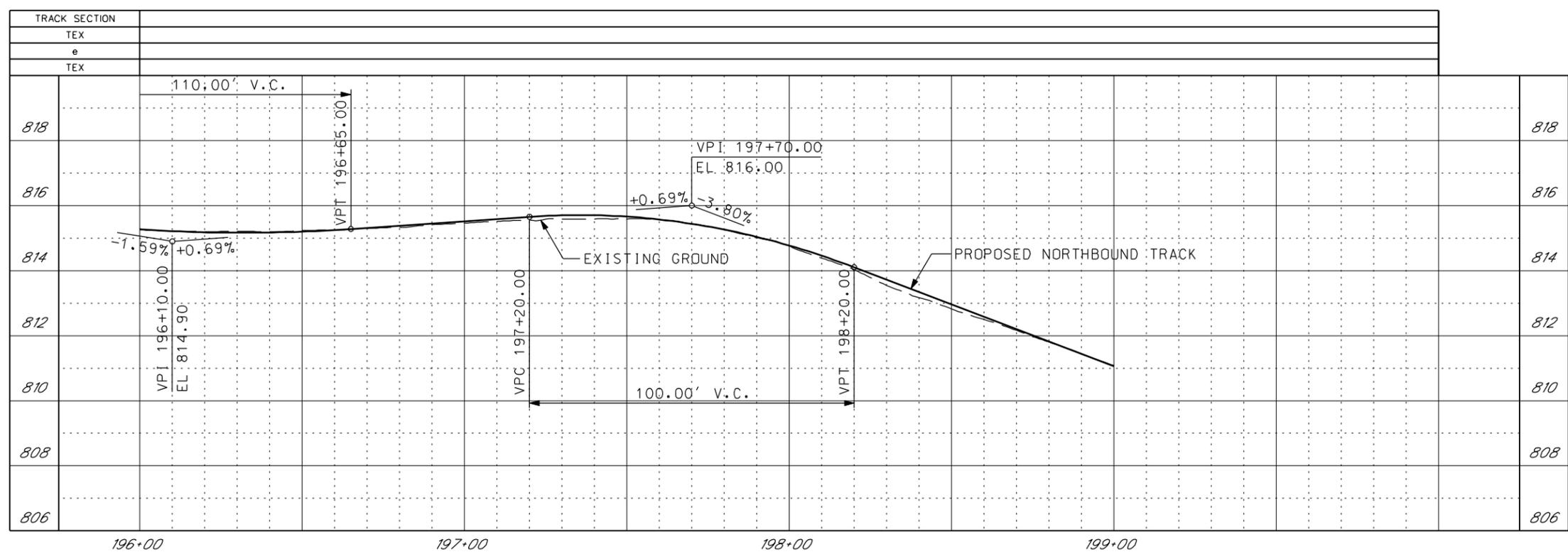
- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C25	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  NORTHBOUND TRACK PLAN AND PROFILE WALNUT STREET STA. 192+00.00 TO 196+00.00	SHEET NO. C25
SHEET FILE: PlanProfile_25.dgn PLOT DATE: 8/3/2012 1:16:12 PM							



CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑳ SHORTEN EXISTING MAST ARM TO CLEAR 10' CONDUCTOR CLEAR ZONE.
- ㉒ ADD NEW SIDE OF POLE SIGNAL HEAD TO THE EXISTING POLE.
- ㉔ REMOVE EXISTING MAST ARM.

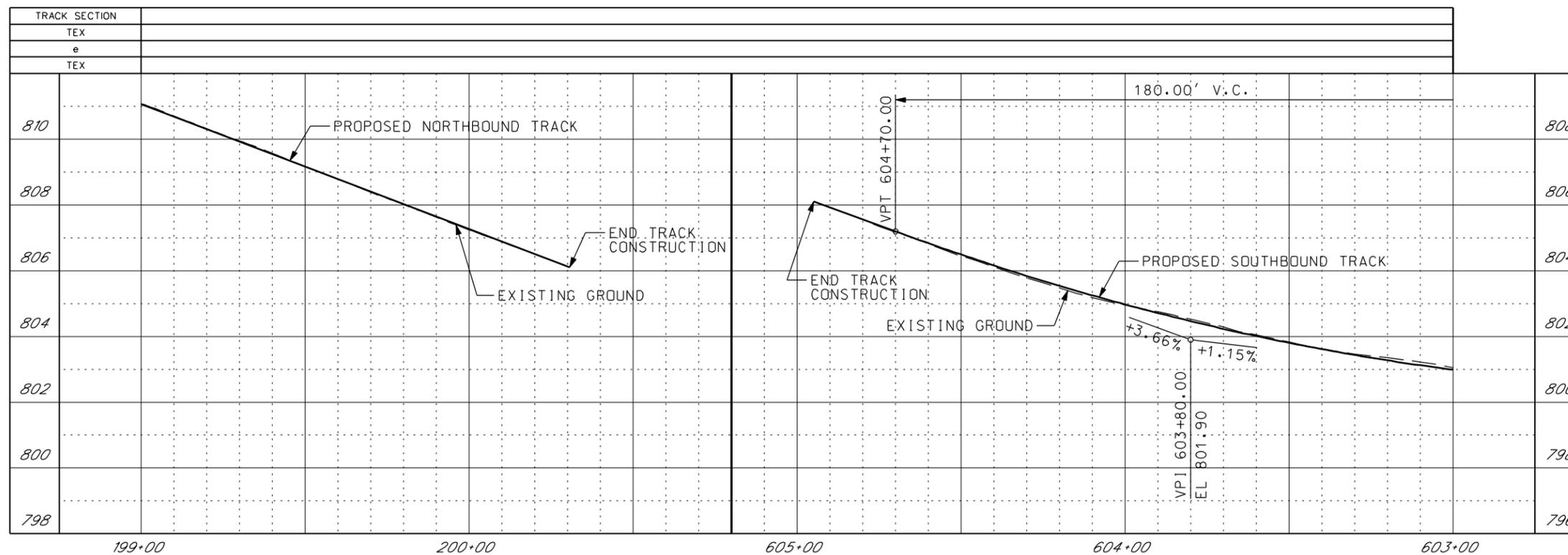
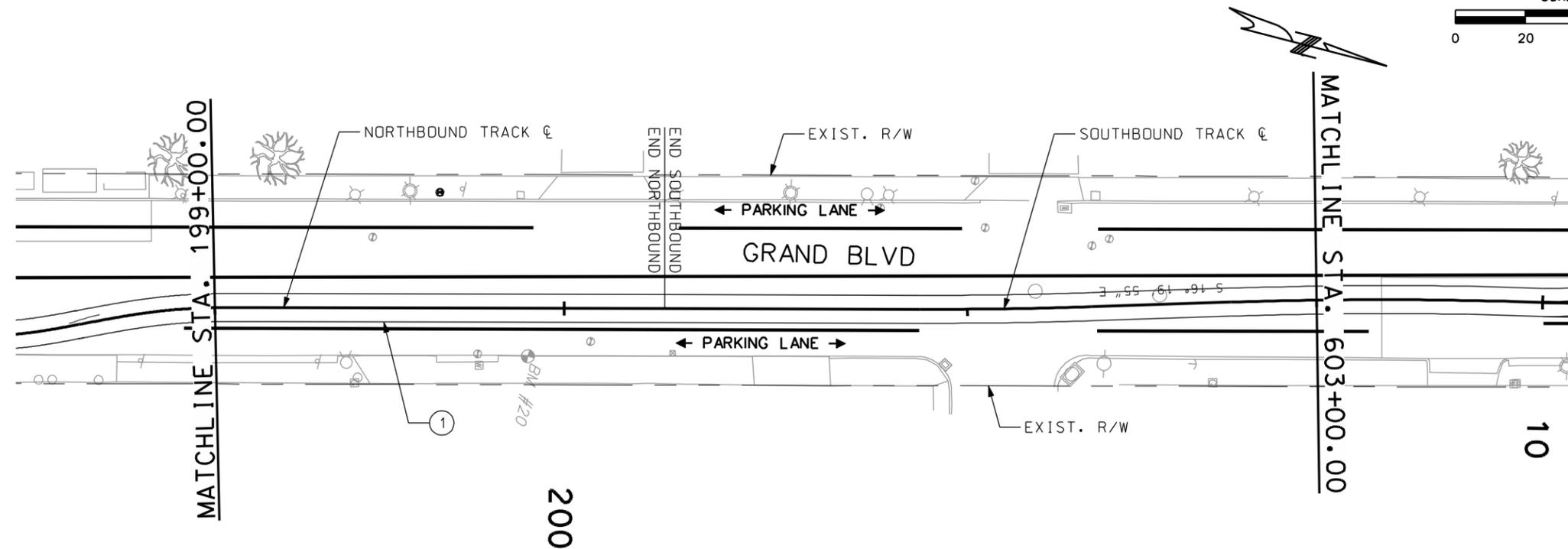
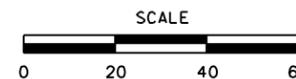


GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C26	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>		<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>NORTHBOUND TRACK PLAN AND PROFILE 5TH &amp; GRAND BOULEVARD STA. 196+00.00 TO 199+00.00</p>	SHEET NO. C26
				DRAWN BY	DIV. ENGINEER						
				CHECKED BY							
				APPROVED BY							
SHEET FILE: PlanProfile_26.dgn			PLOT DATE: 8/3/2012 1:16:29 PM		BY: dbernard						

① CONSTRUCT TRACK SLAB  
(SEE DETAIL 1, SHEET C35).



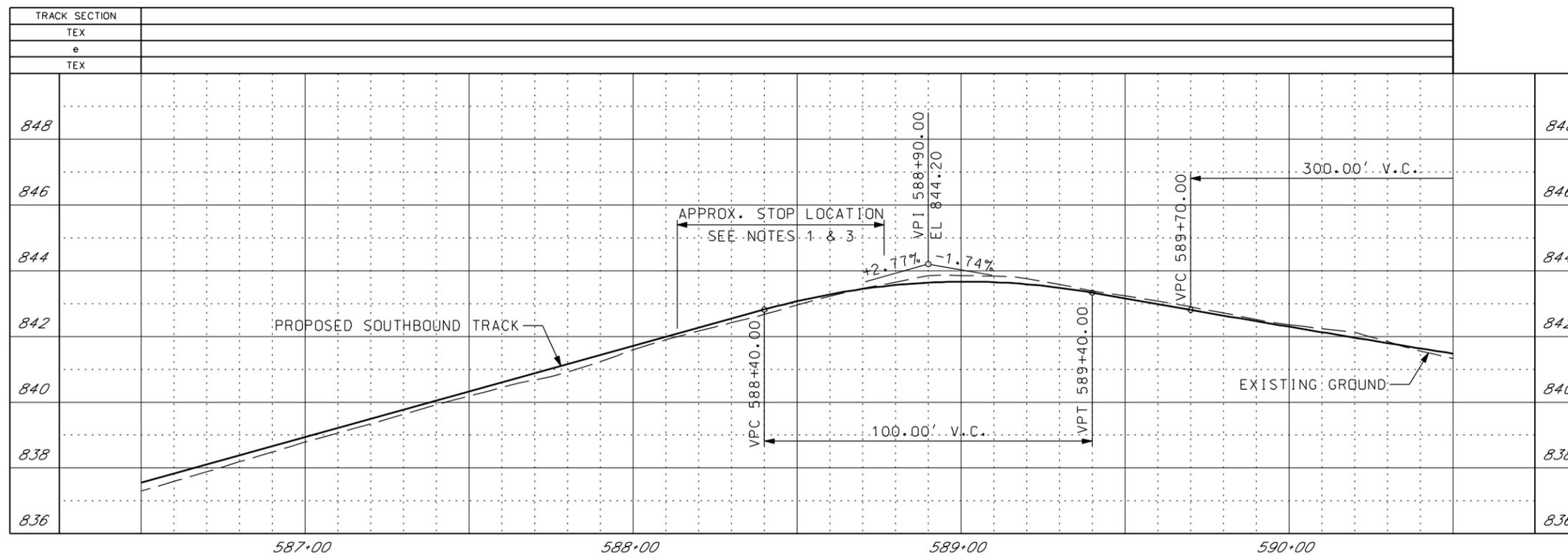
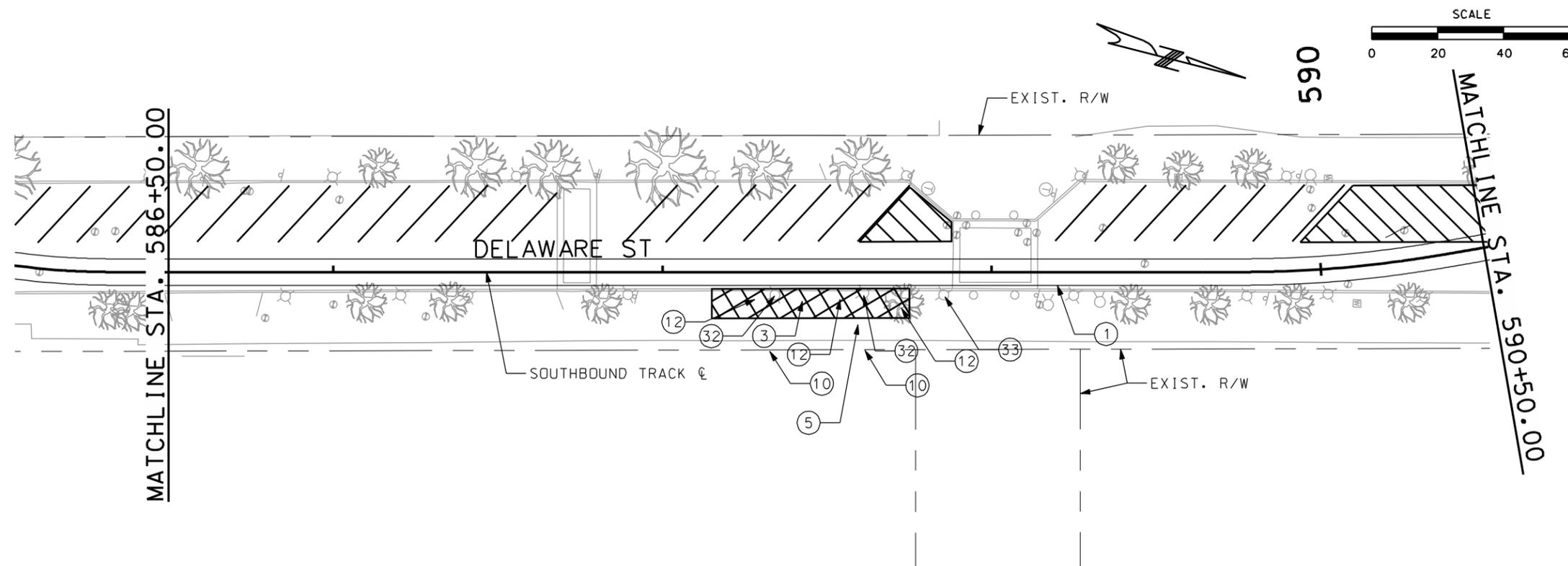
GENERAL NOTES

1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE NB AND SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C27	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  PLAN AND PROFILE GRAND BOULEVARD NORTHBOUND TRACK STA. 199+00.00 TO 200+28.77 SOUTHBOUND TRACK STA. 603+00.00 TO 604+94.33	SHEET NO. C27
		DRAWN BY	DIV. ENGINEER				
		CHECKED BY					
		APPROVED BY					
SHEET FILE: PlanProfile_27.dgn PLOT DATE: 8/3/2012 1:16:46 PM							

CONSTRUCTION NOTES

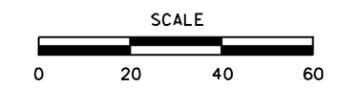
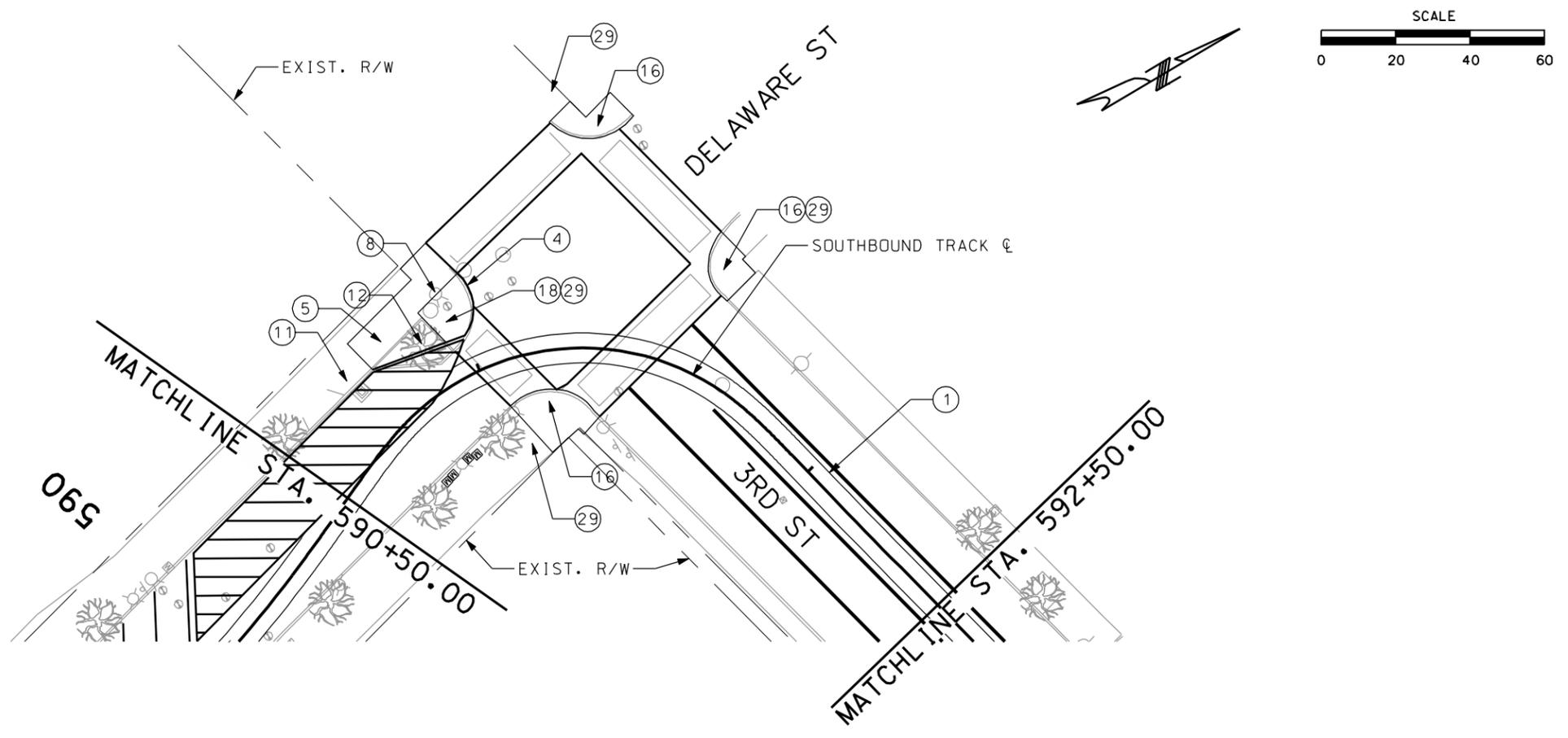
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ⑤ CONSTRUCT SIDEWALK.
- ⑩ MAINTAIN EXISTING BUILDING ENTRANCE.
- ⑫ REMOVE EXISTING TREE WELL AND TREE.
- ⑳ RELOCATE EXISTING LIGHT POLE.
- ㉓ MAINTAIN EXISTING LIGHT POLE.



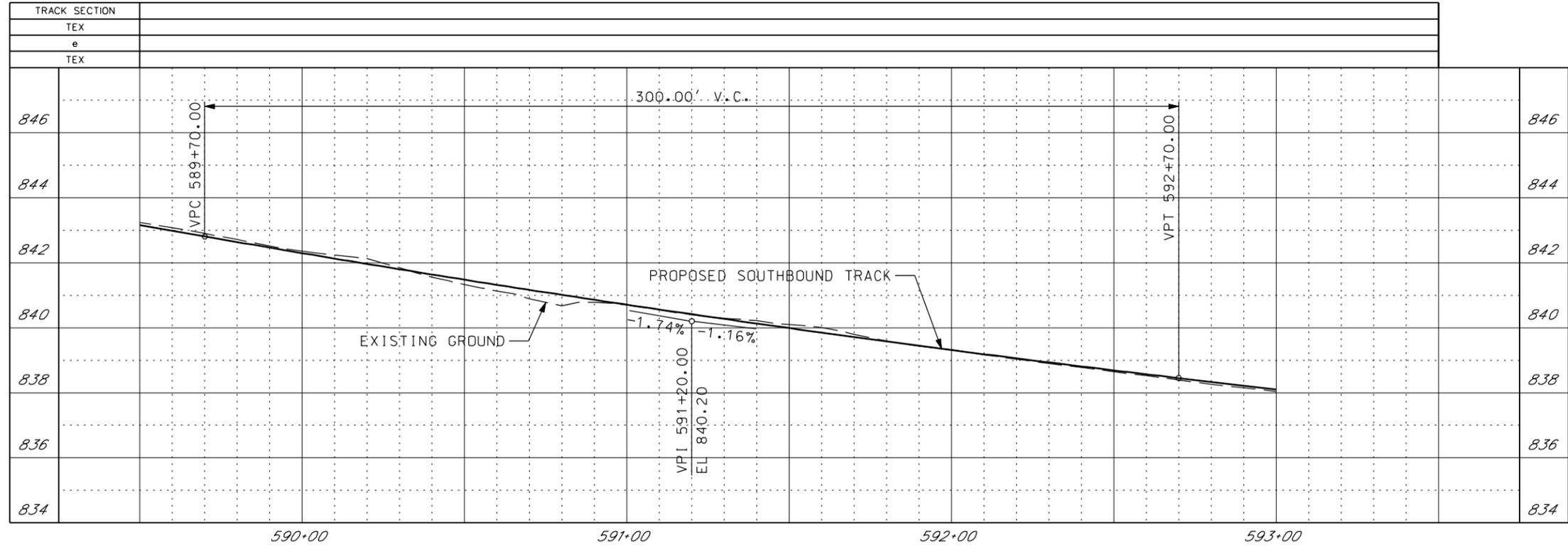
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C28	ISSUE DATE DESCRIPTION _____ _____ _____	DESIGNED BY _____ DATE APPROVED _____ DRAWN BY _____ DIV. ENGINEER _____ CHECKED BY _____ APPROVED BY _____		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	KANSAS CITY DOWNTOWN STREETCAR  SOUTHBOUND TRACK PLAN AND PROFILE DELAWARE STREET STA. 586+50.00 TO 590+50.00	SHEET NO. C28
SHEET FILE: PlanProfile_28.dgn PLOT DATE: 8/3/2012 1:17:03 PM		PLOT DATE: 8/3/2012 1:17:03 PM BY: dbernard				



- CONSTRUCTION NOTES
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
  - ④ CONSTRUCT CURB AND GUTTER.
  - ⑤ CONSTRUCT SIDEWALK.
  - ⑧ RELOCATE EXISTING FIRE HYDRANT.
  - ⑪ MAINTAIN EXISTING TREE WELL AND TREE.
  - ⑫ REMOVE EXISTING TREE WELL AND TREE.
  - ⑬ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
  - ⑮ CONSTRUCT ADA COMPLIANT CURB RAMP.
  - ⑲ SIGNALIZE INTERSECTION.

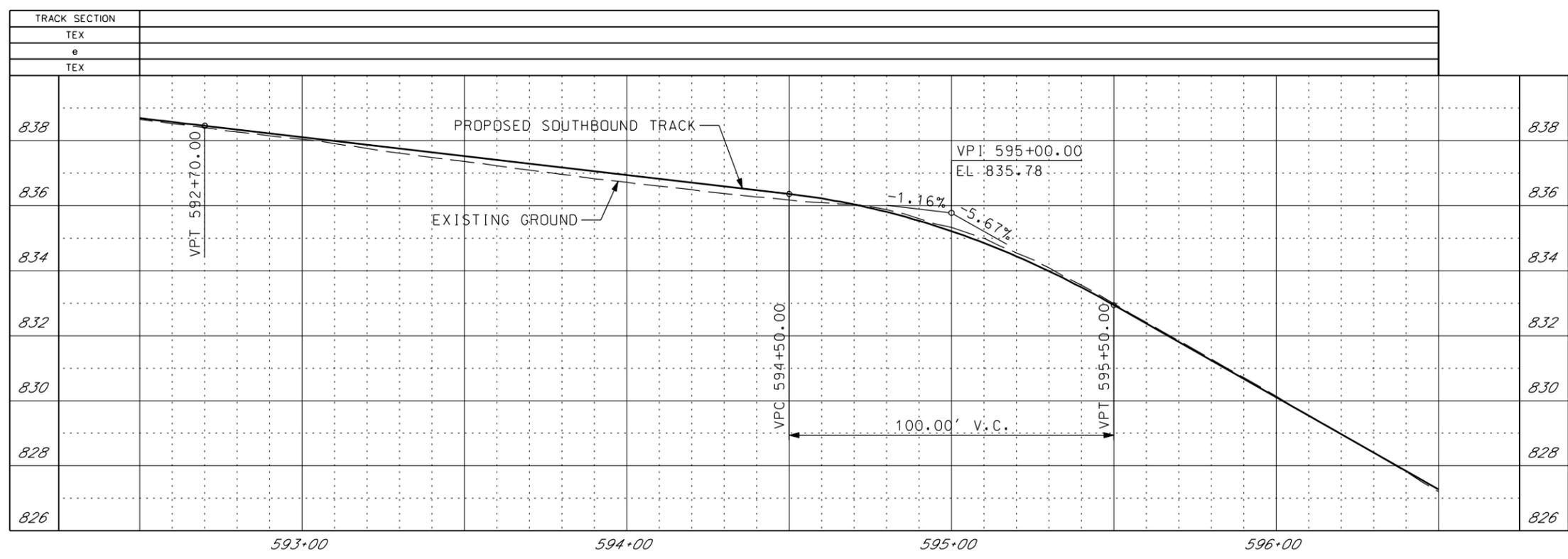
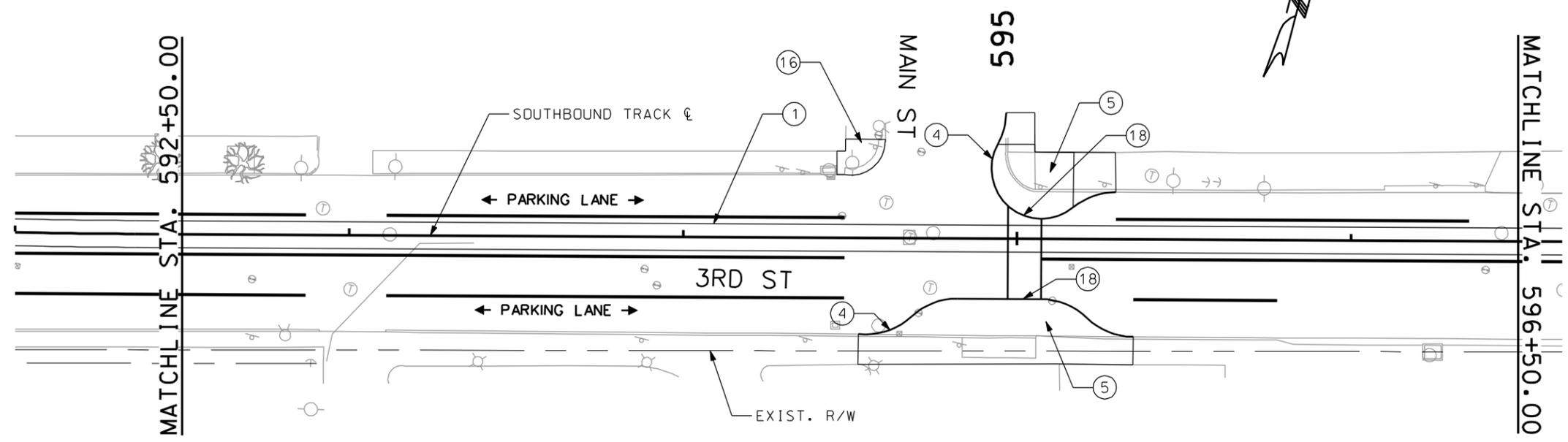
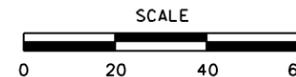


- GENERAL NOTES
1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
  2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C29	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  SOUTHBOUND TRACK PLAN AND PROFILE DELAWARE & 3RD STREET STA. 590+50.00 TO 592+50.00	SHEET NO. C29
				DRAWN BY	DIV. ENGINEER					
				CHECKED BY						
				APPROVED BY						
SHEET FILE: PlanProfile_29.dgn		PLOT DATE: 8/3/2012 2:02:13 PM		BY: dbernard						

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑬ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑱ CONSTRUCT ADA COMPLIANT CURB RAMP.



GENERAL NOTES

3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED
SHEET NO. C30				
			DRAWN BY	DIV. ENGINEER
			CHECKED BY	
			APPROVED BY	

SHEET FILE: PlanProfile\_30.dgn PLOT DATE: 8/3/2012 1:17:35 PM



**ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL**  
**NOT FOR CONSTRUCTION**

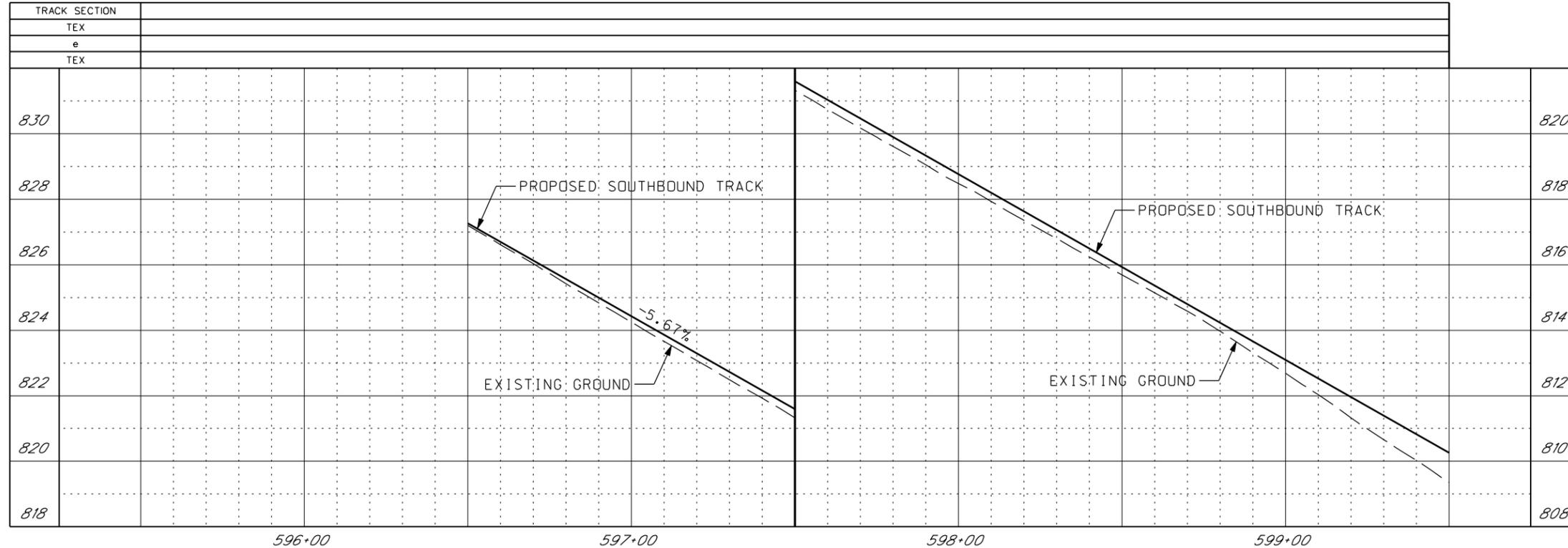
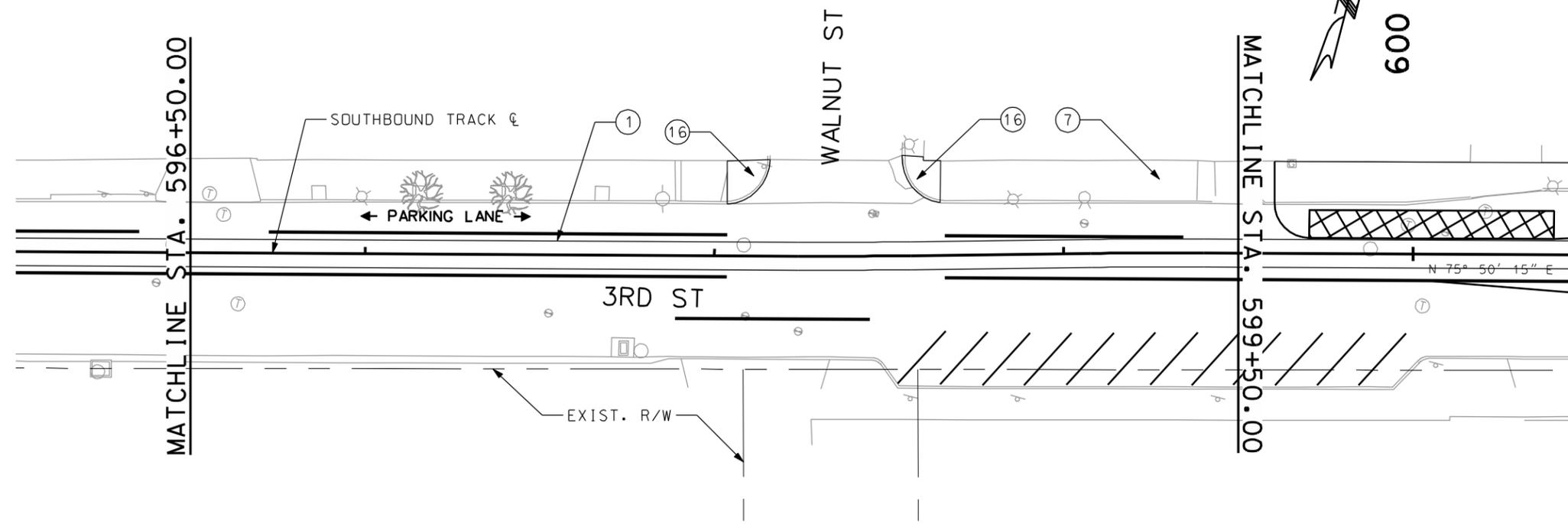
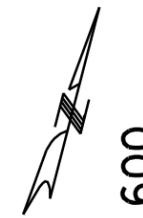
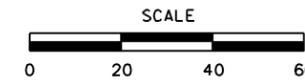


KANSAS CITY DOWNTOWN STREETCAR  
 SOUTHBOUND TRACK  
 PLAN AND PROFILE  
 3RD STREET  
 STA. 592+50.00 TO 596+50.00

SHEET NO. C30

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ⑦ MAINTAIN EXISTING DRIVEWAY.
- ⑯ CURB RETURN AND SIDEWALK RAMPS TO BE RECONSTRUCTED TO MEET ADA STANDARDS.



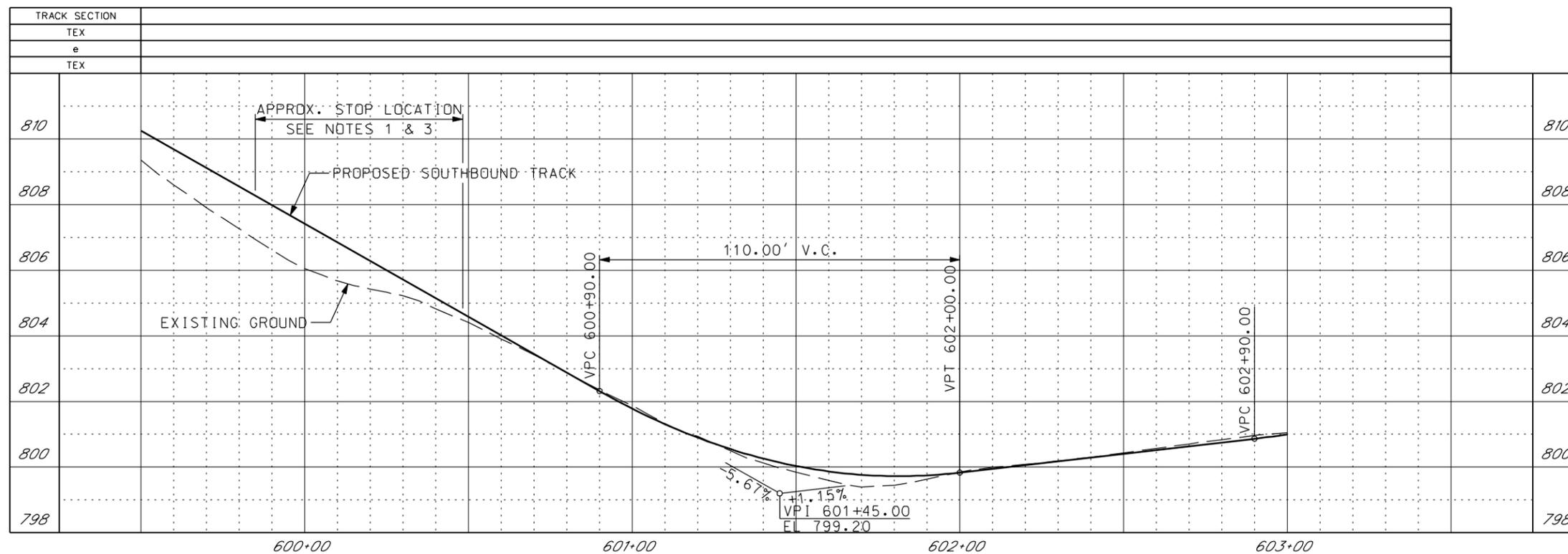
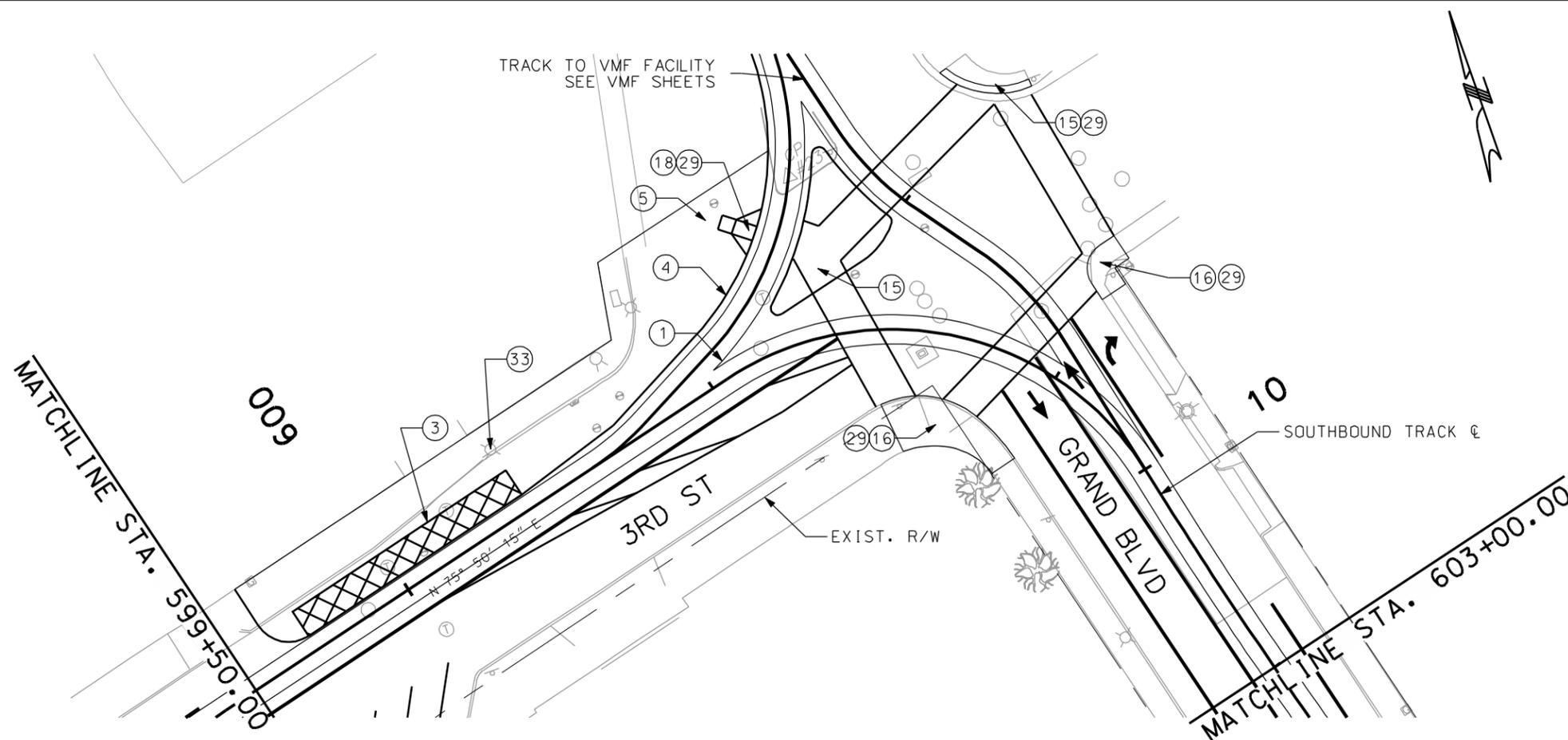
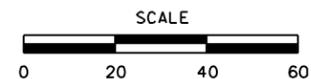
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. C31	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  SOUTHBOUND TRACK PLAN AND PROFILE 3RD STREET STA. 596+50.00 TO 599+50.00	SHEET NO. C31
SHEET FILE: PlanProfile_31.dgn      PLOT DATE: 8/3/2012 1:17:57 PM		PLOT DATE: 8/3/2012 1:17:57 PM      BY: dbernard					

CONSTRUCTION NOTES

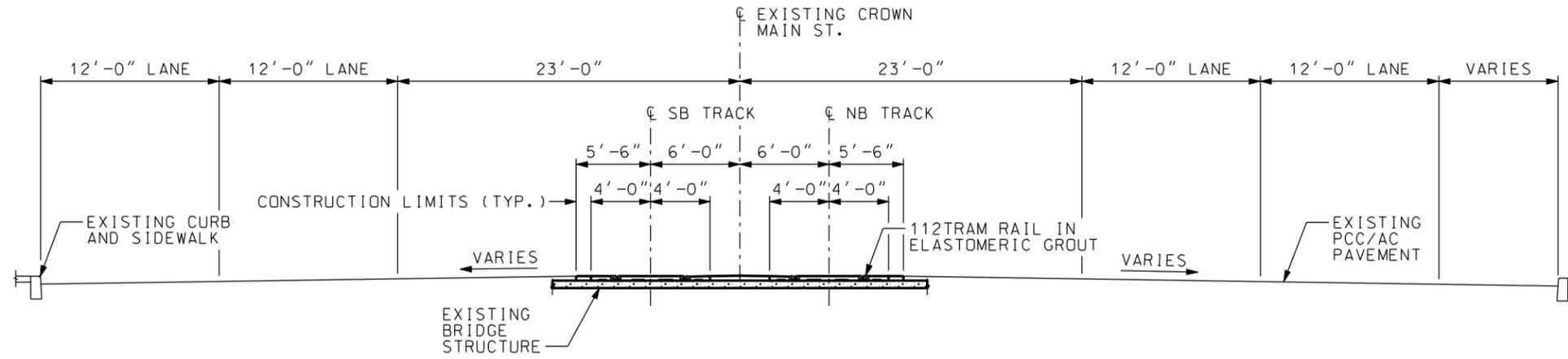
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③ CONSTRUCT STREETCAR STOP - SIDE.
- ④ CONSTRUCT CURB AND GUTTER.
- ⑤ CONSTRUCT SIDEWALK.
- ⑮ TRUNCATED DOMES TO BE INSTALLED ON SIDEWALK RAMP TO MEET ADA STANDARDS.
- ⑯ CURB RETURN AND SIDEWALK RAMP TO BE RECONSTRUCTED TO MEET ADA STANDARDS.
- ⑰ CONSTRUCT ADA COMPLIANT CURB RAMP.
- ⑲ SIGNALIZE INTERSECTION.
- ⑳ MAINTAIN EXISTING LIGHT POLE.



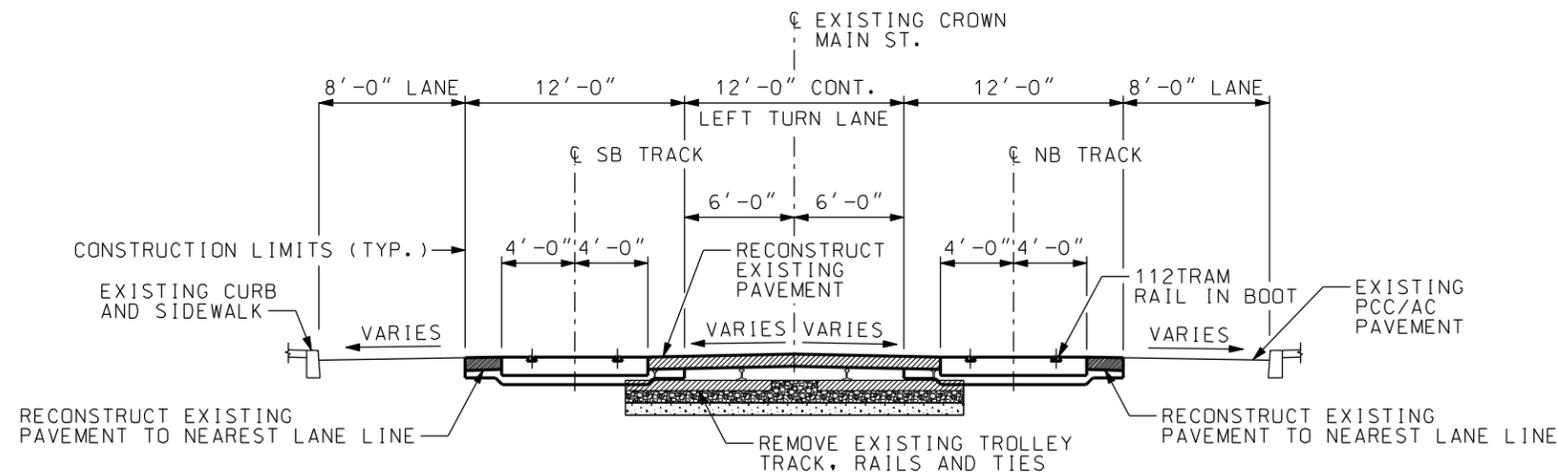
GENERAL NOTES

- 1. PROFILE SHOWN IS CONCEPTUAL AND ONLY INTENDED TO ILLUSTRATE THE EXISTING STREET GRADES. IT IS TAKEN ALONG THE SB TRACK AND IT SHOULD NOT BE CONSIDERED A DESIGN PROFILE. ACTUAL PROFILE IS TO BE DETERMINED DURING FINAL DESIGN.
- 2. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
- 3. A VERTICAL TANGENT WILL BE REQUIRED AT STREETCAR STOPS TO ACCOMMODATE THE ADA BOARDING INTERFACE BETWEEN THE VEHICLE AND PLATFORM EDGE. LENGTH OF TANGENT AND VERTICAL PROFILE DESIGN IS DEPENDENT ON THE SELECTED VEHICLE AND WILL BE DETERMINED DURING FINAL DESIGN. FINAL DESIGNER WILL EVALUATE ALTERNATIVES TO PROVIDE THE NECESSARY TANGENT IN VERTICAL PROFILE (~40-75 FT.) WHICH MAY INCLUDE ADJUSTMENTS TO THE EXISTING ROADWAY GRADING AND/OR SHIFTING THE STREETCAR STOP.

SHEET NO. C32	ISSUE DATE DESCRIPTION DESIGNED BY DATE APPROVED DRAWN BY DIV. ENGINEER CHECKED BY APPROVED BY			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  SOUTHBOUND TRACK PLAN AND PROFILE 3RD STREET STA. 599+50.00 TO 603+00.00	SHEET NO. C32
SHEET FILE: PlanProfile_32.dgn PLOT DATE: 8/3/2012 1:18:13 PM							



**PAVEMENT SECTION LEFT & RIGHT**  
 PERSHING ROAD TO 20TH STREET  
 STA. 101+90.00 TO STA. 117+34.92  
 SB TRACK BEGINS AT 500+00.00

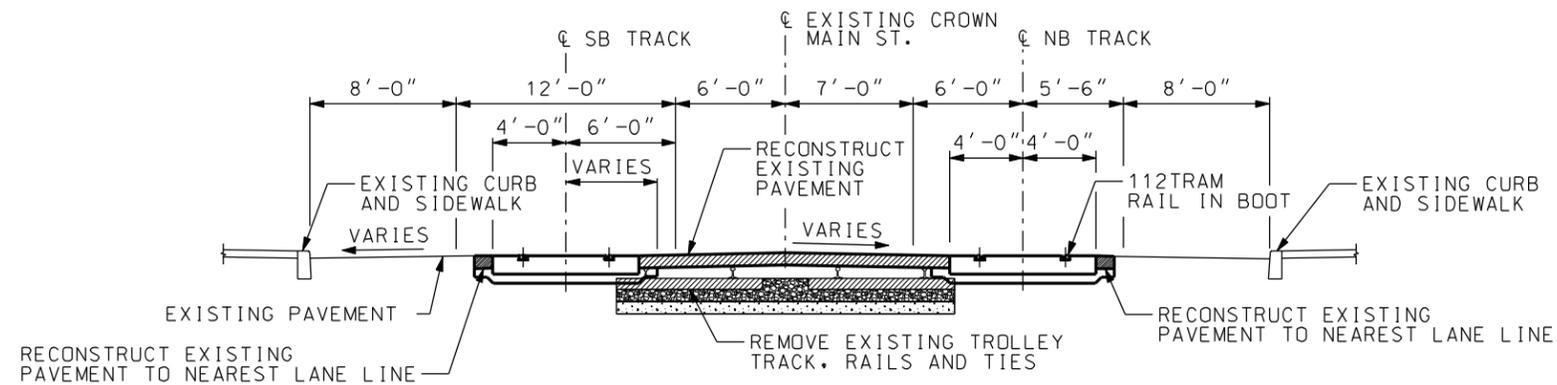


**PAVEMENT SECTION LEFT & RIGHT**  
 20TH STREET TO TRUMAN ROAD N  
 STA. 117+34.92 TO STA. 142+16.14

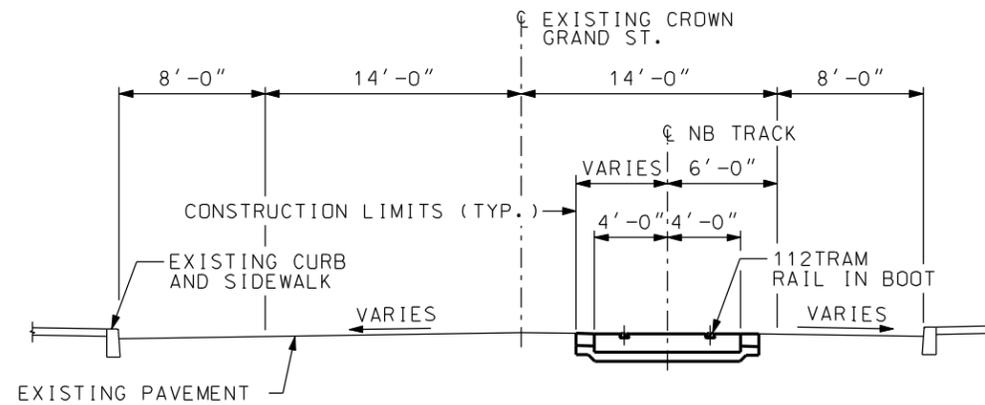
GENERAL NOTES

1. DESIGN SHOWN IS CONCEPTUAL. INFORMATION GIVEN IS APPROXIMATE AND SHOULD BE VERIFIED DURING FINAL DESIGN.
2. THERE HAS NOT BEEN A GEOTECHNICAL INVESTIGATION AS PART OF THE ADVANCED CONCEPTUAL ENGINEERING. EXISTING SUBGRADE CONDITION UNKNOWN.
3. NEW PAVEMENT IN AREAS WHERE THERE IS LESS THAN 2' WIDTH BETWEEN THE TRACK SLAB AND ADJACENT CURB SHALL BE P.C.C. (CONCRETE) PAVEMENT REGARDLESS OF THE EXISTING PAVEMENT.

SHEET NO. C33	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. C33
SHEET FILE: TypSec_01.dgn		PLOT DATE: 8/3/2012 1:18:19 PM				TYPICAL SECTIONS PROPOSED TRACK SECTIONS		



**PAVEMENT SECTION LEFT & RIGHT**  
 MAIN STREET  
 FROM TRUMAN RD TO 13TH STREET

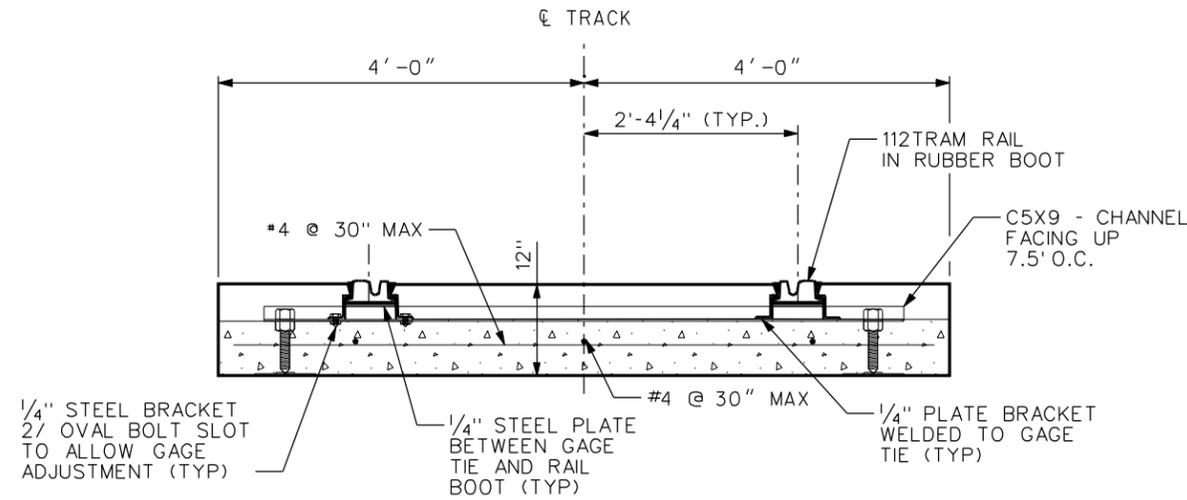


**PAVEMENT SECTION LEFT & RIGHT**  
 GRAND STREET  
 5TH STREET  
 3RD STREET

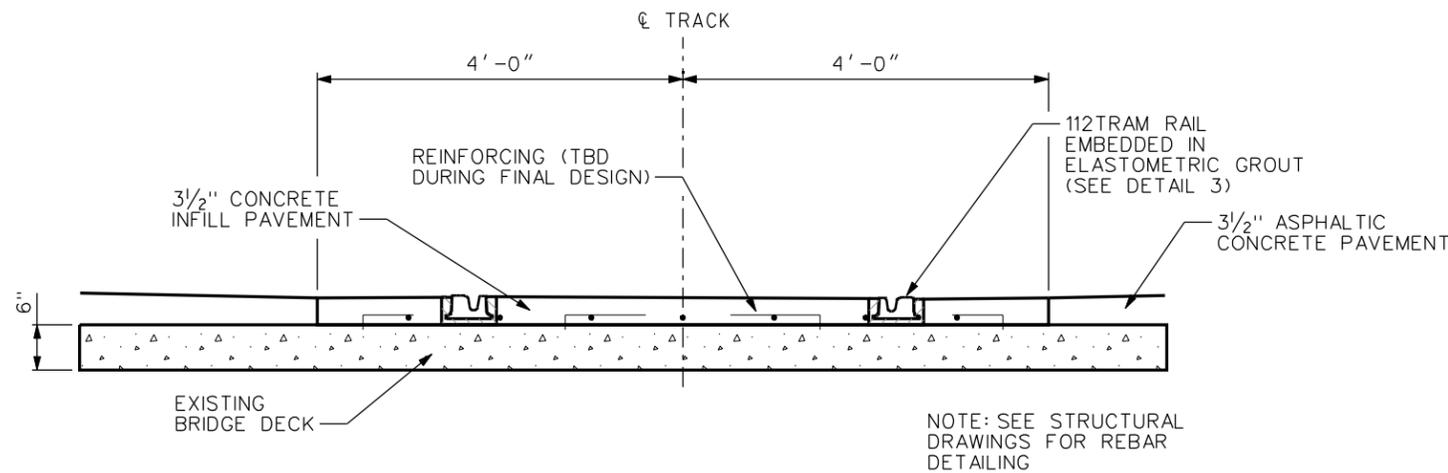
GENERAL NOTES

1. DESIGN SHOWN IS CONCEPTUAL. INFORMATION GIVEN IS APPROXIMATE AND SHOULD BE VERIFIED DURING FINAL DESIGN.
2. THERE HAS NOT BEEN A GEOTECHNICAL INVESTIGATION AS PART OF THE ADVANCED CONCEPTUAL ENGINEERING. EXISTING SUBGRADE CONDITION UNKNOWN.
3. NEW PAVEMENT IN AREAS WHERE THERE IS LESS THAN 2' WIDTH BETWEEN THE TRACK SLAB AND ADJACENT CURB SHALL BE P.C.C. (CONCRETE) PAVEMENT REGARDLESS OF THE EXISTING PAVEMENT.

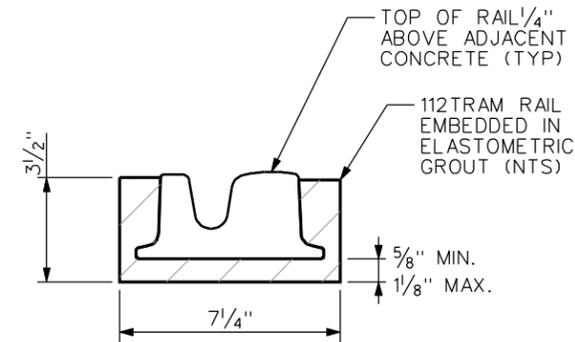
SHEET NO. C34	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	 	<b>ADVANCED CONCEPTUAL                  ENGINEERING                  SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  TYPICAL SECTIONS PROPOSED TRACK SECTIONS	SHEET NO. C34
SHEET FILE: TypSec_02.dgn		PLOT DATE: 8/3/2012 1:18:25 PM								



**DETAIL 1**  
PROPOSED 112TRAM EMBEDDED TRACK SECTION



**DETAIL 2**  
PROPOSED 112TRAM EMBEDDED TRACK ON STRUCTURE

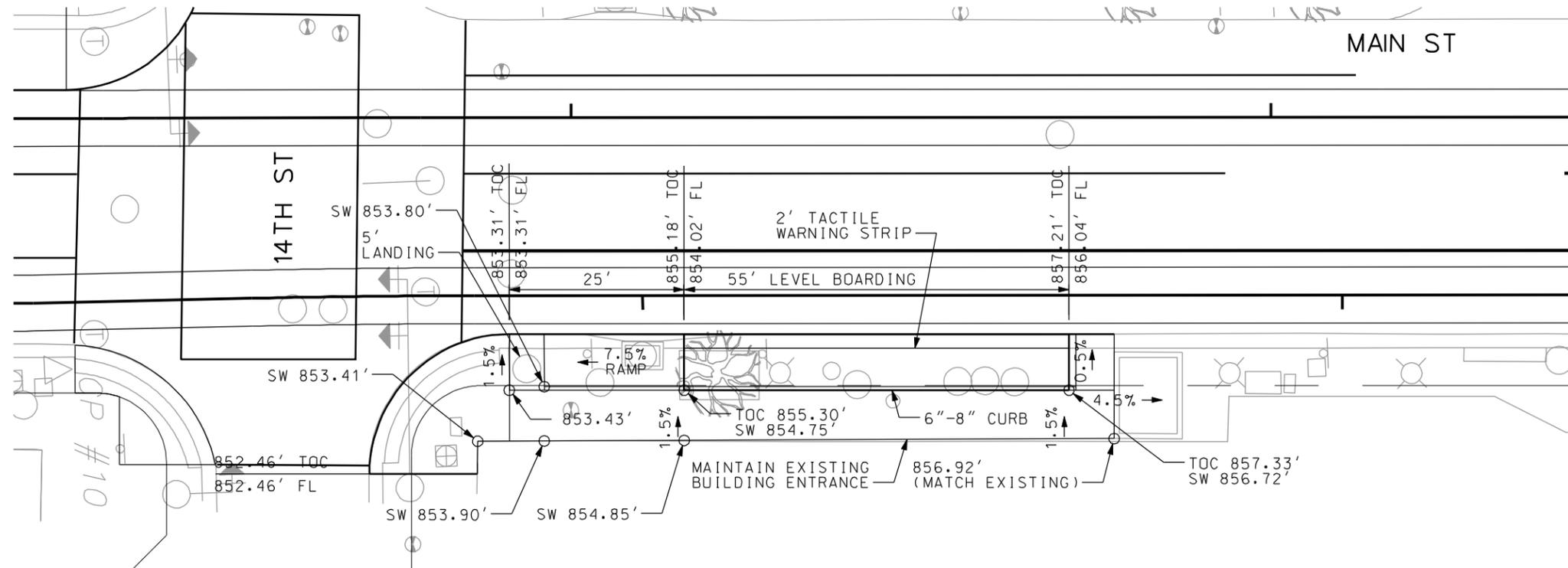


**DETAIL 3**  
PROPOSED 112TRAM E.G. EMBEDDED TRACK SECTION

GENERAL NOTES

1. DESIGN SHOWN IS CONCEPTUAL. INFORMATION GIVEN IS APPROXIMATE AND SHOULD BE VERIFIED DURING FINAL DESIGN.
2. THERE HAS NOT BEEN A GEOTECHNICAL INVESTIGATION AS PART OF THE ADVANCED CONCEPTUAL ENGINEERING. EXISTING SUBGRADE CONDITION UNKNOWN.
3. NEW PAVEMENT IN AREAS WHERE THERE IS LESS THAN 2' WIDTH BETWEEN THE TRACK SLAB AND ADJACENT CURB SHALL BE P.C.C. (CONCRETE) PAVEMENT REGARDLESS OF THE EXISTING PAVEMENT.

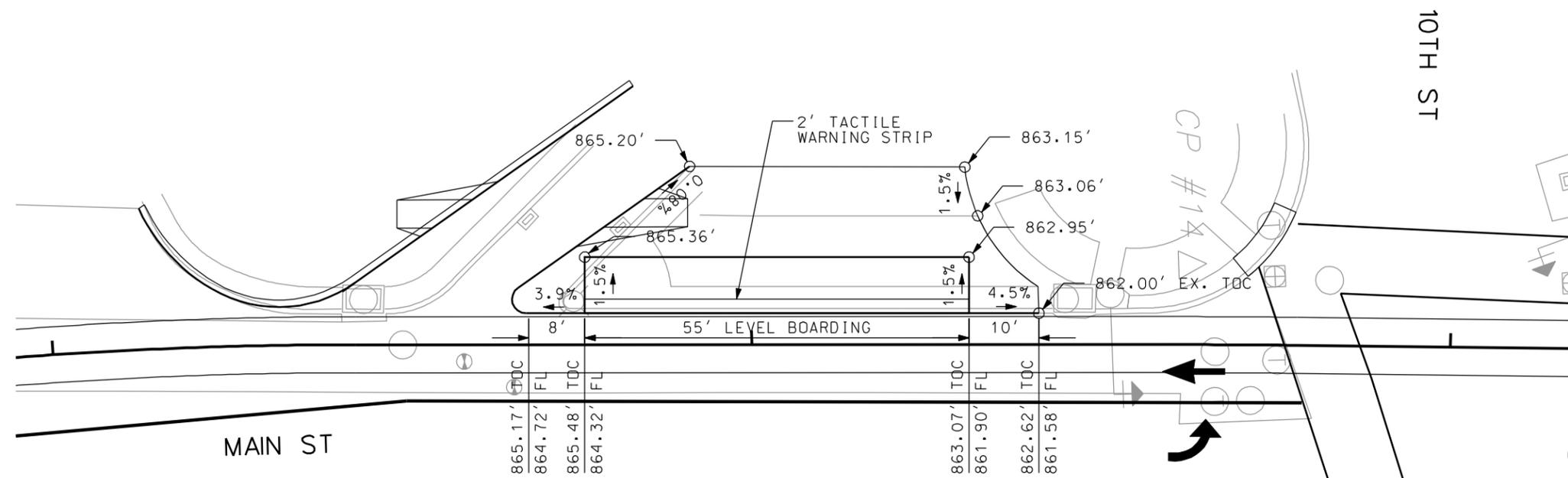
SHEET NO. C35	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. C35
				DRAWN BY	DIV. ENGINEER			
				CHECKED BY				
				APPROVED BY				
	SHEET FILE: TypSec_03.dgn		PLOT DATE: 8/3/2012 1:18:31 PM					



GENERAL NOTES

1. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
2. STOP LAYOUTS CONCEPTUAL AND INTENDED ONLY TO ILLUSTRATE HOW THE STOP COULD POTENTIALLY BE CONFIGURED.

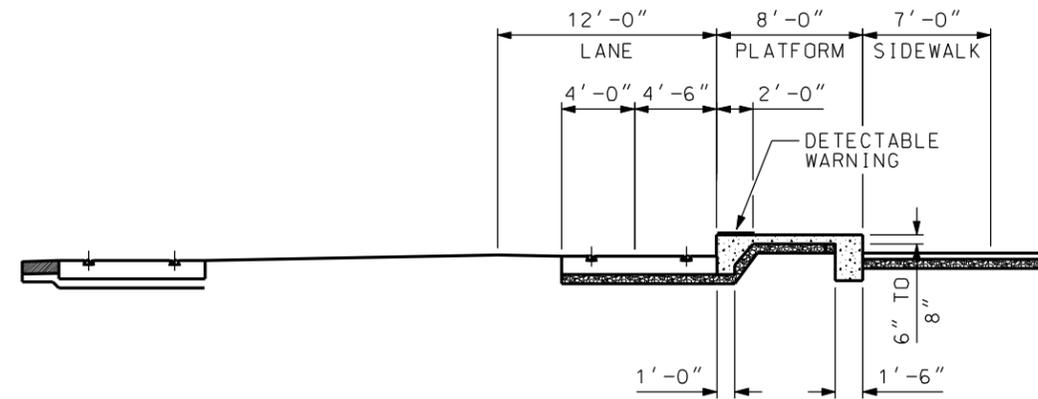
SHEET NO. C36	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. C36
SHEET FILE: StationPlan_01			PLOT DATE: 8/3/2012 1:18:45 PM		PLATFORM/STOP PLANS 14TH STREET AND MAIN			



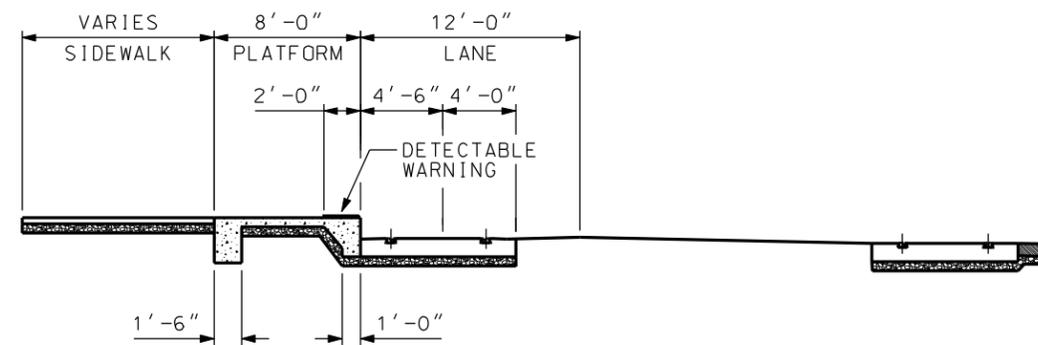
GENERAL NOTES

1. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
2. STOP LAYOUTS CONCEPTUAL AND INTENDED ONLY TO ILLUSTRATE HOW THE STOP COULD POTENTIALLY BE CONFIGURED.

SHEET NO. C37	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. C37
				DRAWN BY	DIV. ENGINEER			
				CHECKED BY				
				APPROVED BY				
	SHEET FILE: StationPlan_02			PLOT DATE: 8/3/2012 1:19:00 PM				



**STATION SECTION**  
 NORTHBOUND TRACK  
 14TH STREET & MAIN STREET  
 STA. 148+05.93 TO STA. 148+60.93

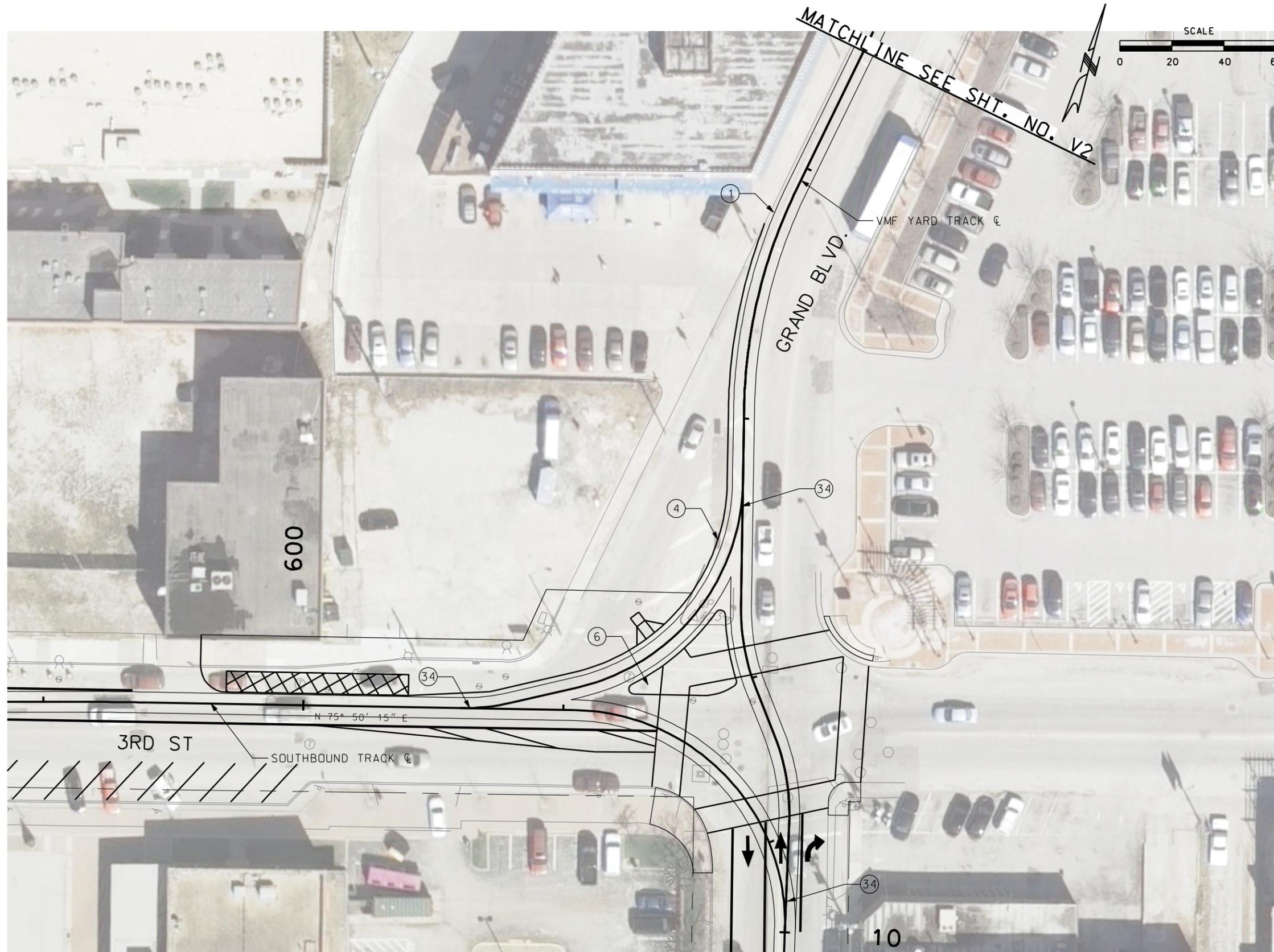


**SECTION AT STREETCAR STOP**  
 SOUTHBOUND TRACK  
 10TH STREET & MAIN STREET  
 STA. 562+76.10 TO STA. 536+31.11

GENERAL NOTES

1. DESIGN SHOWN IS CONCEPTUAL. INFORMATION GIVEN IS APPROXIMATE AND SHOULD BE VERIFIED DURING FINAL DESIGN.
2. THERE HAS NOT BEEN A GEOTECHNICAL INVESTIGATION AS PART OF THE ADVANCED CONCEPTUAL ENGINEERING. EXISTING SUBGRADE CONDITION UNKNOWN.
3. NEW PAVEMENT IN AREAS WHERE THERE IS LESS THAN 2' WIDTH BETWEEN THE TRACK SLAB AND ADJACENT CURB SHALL BE P.C.C. (CONCRETE) PAVEMENT REGARDLESS OF THE EXISTING PAVEMENT.
4. DIMENSION BETWEEN THE CENTERLINE OF TRACK AND STOP IS DEPENDENT ON THE FINAL VEHICLE SELECTION.

SHEET NO. C38	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	 	<b>ADVANCED CONCEPTUAL                  ENGINEERING                  SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. C38
				DRAWN BY	DIV. ENGINEER					
				CHECKED BY						
				APPROVED BY						
	SHEET FILE: StationTypSec_01.dgn			PLOT DATE: 8/3/2012 1:19:06 PM						



CONSTRUCTION NOTES

- ④ CONSTRUCT CURB AND GUTTER.
- ⑥ CONSTRUCT RAISED ISLAND.
- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ③④ INSTALL EMBEDDED 25m 115RE TURNOUT.

GENERAL NOTES

1. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

ISSUE	DATE	DESCRIPTION
V1		

DESIGNED BY	DATE APPROVED
DRAWN BY	DIV. ENGINEER
CHECKED BY	
APPROVED BY	

SHEET FILE: VMFSite\_01.dgn      PLOT DATE: 8/3/2012 1:21:41 PM

DESIGNED BY	DATE APPROVED
DRAWN BY	DIV. ENGINEER
CHECKED BY	
APPROVED BY	



**ADVANCED CONCEPTUAL  
ENGINEERING  
SUBMITTAL**

**NOT FOR CONSTRUCTION**



KANSAS CITY DOWNTOWN STREETCAR

VEHICLE MAINTENANCE FACILITY  
SITE PLAN  
1 OF 4

SHEET NO.  
V1

CONSTRUCTION NOTES

- ① CONSTRUCT TRACK SLAB (SEE DETAIL 1, SHEET C35).
- ⑬ POTENTIAL SUBSTATION LOCATION.
- ⑳ INSTALL BALLASTED #4 OR #5 FUTURE TURNOUT.
- ㉟ CONSTRUCT BALLASTED YARD TRACK.



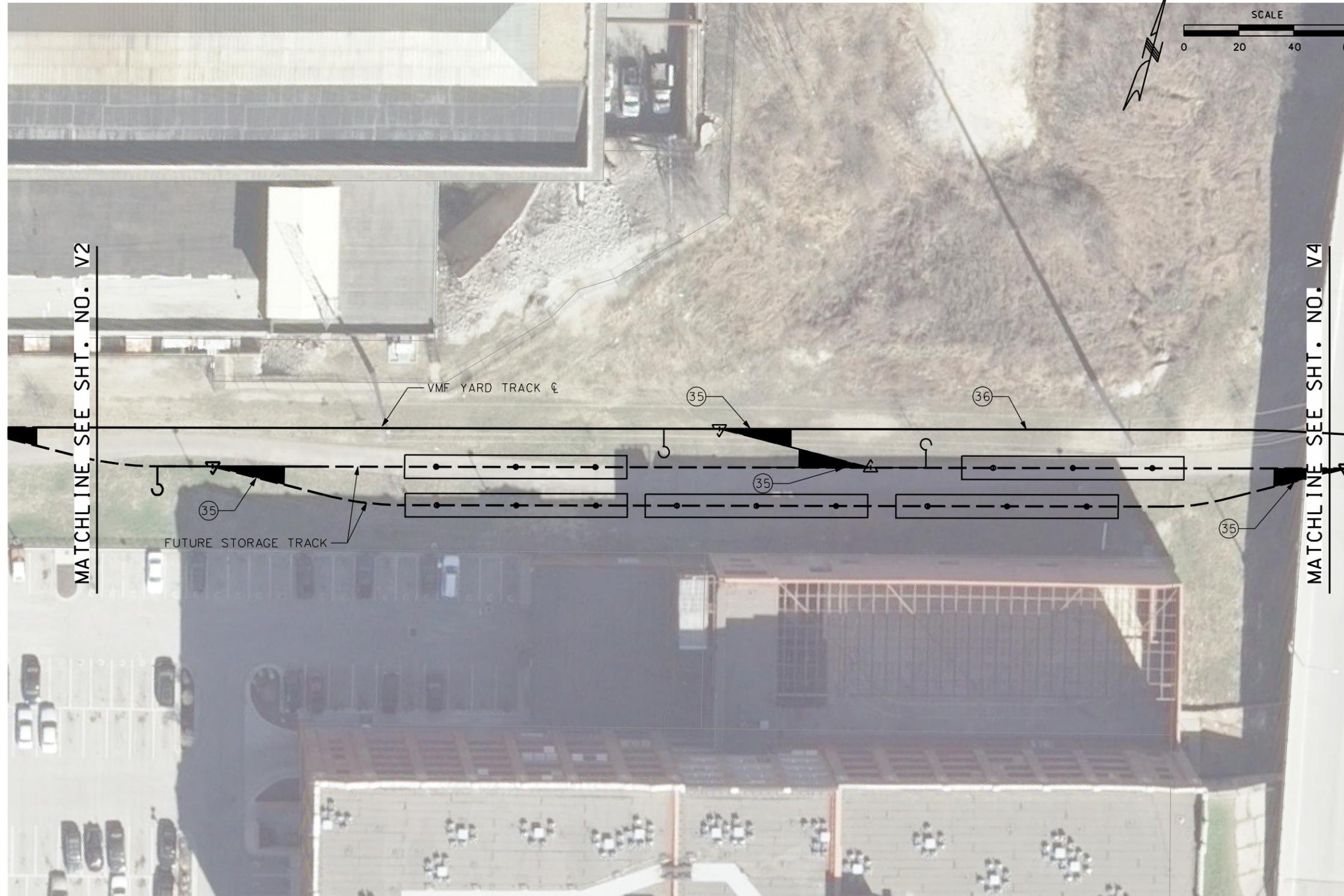
GENERAL NOTES

- 1. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

SHEET NO. V2	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR  VEHICLE MAINTENANCE FACILITY SITE PLAN 2 OF 4	SHEET NO. V2
				DRAWN BY	DIV. ENGINEER			
				CHECKED BY				
				APPROVED BY				
SHEET FILE: VMFSite_02.dgn		PLOT DATE: 8/3/2012 1:54:56 PM						

CONSTRUCTION NOTES

- ③5 INSTALL BALLASTED #4 OR #5 FUTURE TURNOUT.
- ③6 CONSTRUCT BALLASTED YARD TRACK.



GENERAL NOTES

1. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.

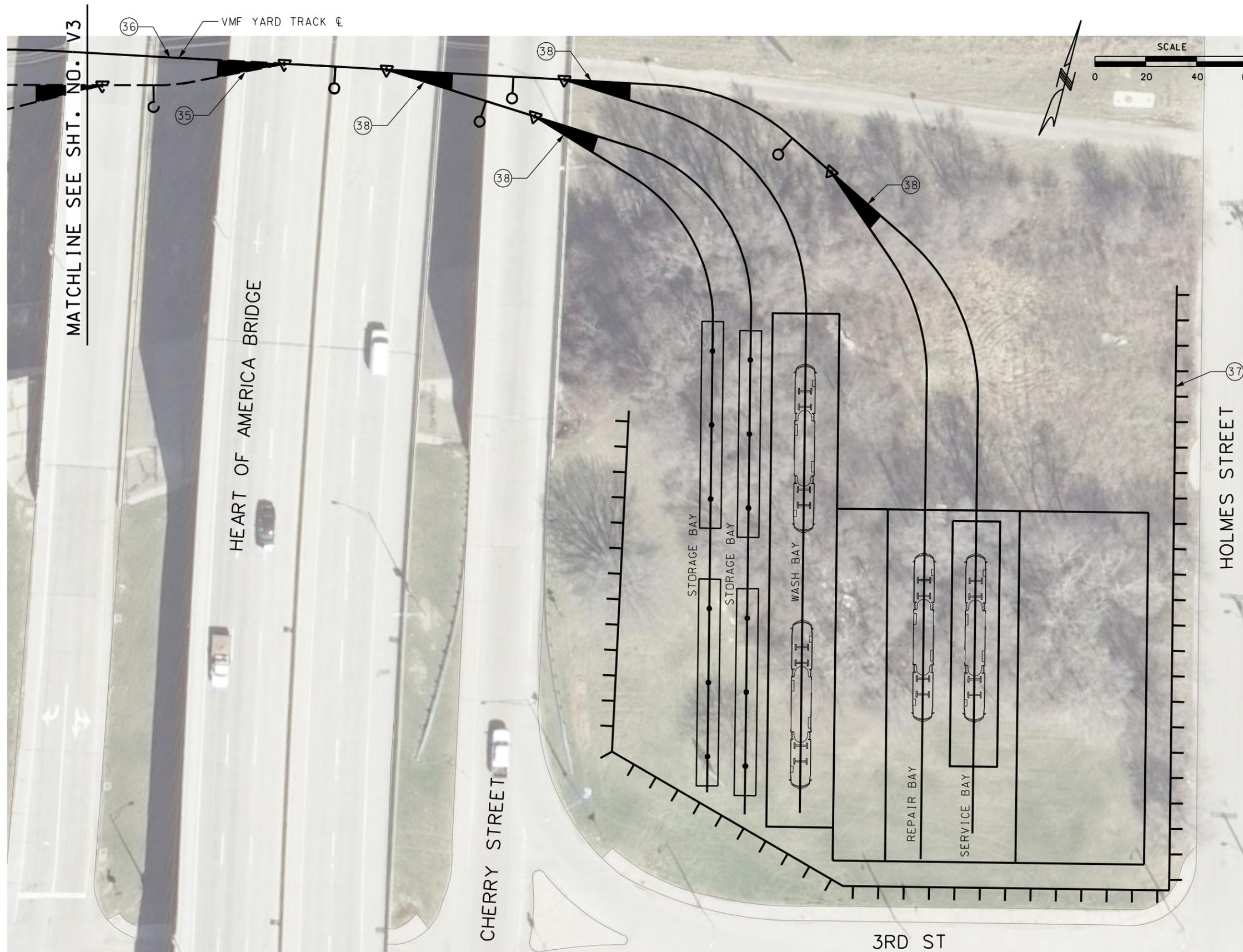
SHEET NO. V3	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. V3
									VEHICLE MAINTENANCE FACILITY	
									SITE PLAN	
									3 OF 4	
SHEET FILE: VMFSite_03.dgn			PLOT DATE: 8/3/2012 1:22:30 PM		BY: dbernard		<p style="font-size: small;">PLOT DATE: 8/3/2012 1:22:30 PM BY: dbernard</p>			

CONSTRUCTION NOTES

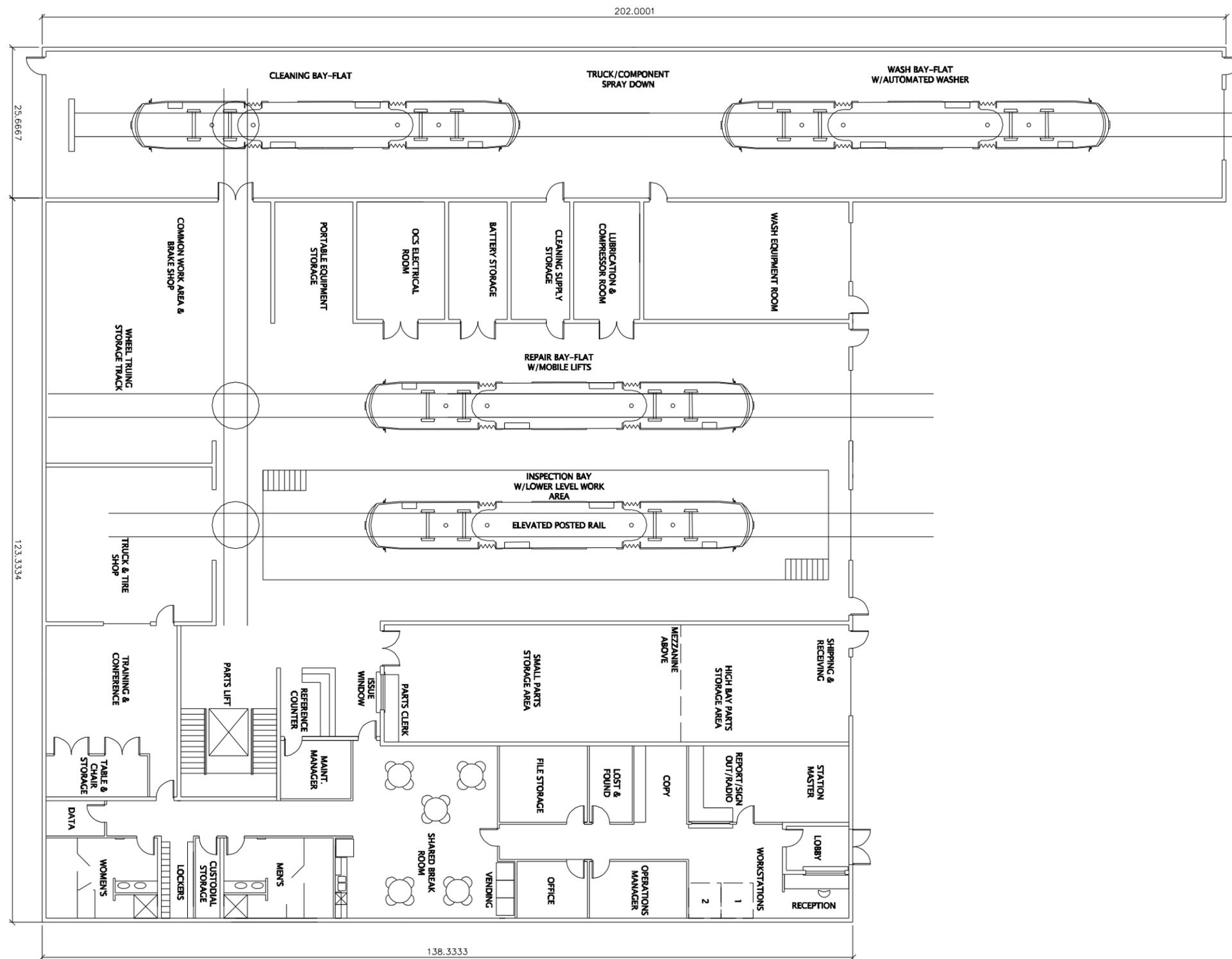
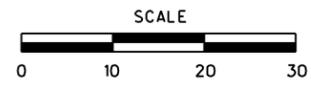
- 35 INSTALL BALLASTED #4 OR #5 FUTURE TURNOUT.
- 36 CONSTRUCT BALLASTED YARD TRACK.
- 37 CONSTRUCT RETAINING WALL.
- 38 INSTALL BALLASTED #4 OR #5 TURNOUT.

GENERAL NOTES

1. MAINTAIN ALL EXISTING DRIVEWAYS AND BUILDING ENTRANCES THROUGH THE DURATION OF THE PROJECT.
2. VMF YARD TRACK ALIGNMENT IS CONCEPTUAL AND MAY NEED TO BE REEVALUATED BASED ON PENDING FIELD VERIFICATIONS OF EXISTING BRIDGES AND SUBSTRUCTURES.

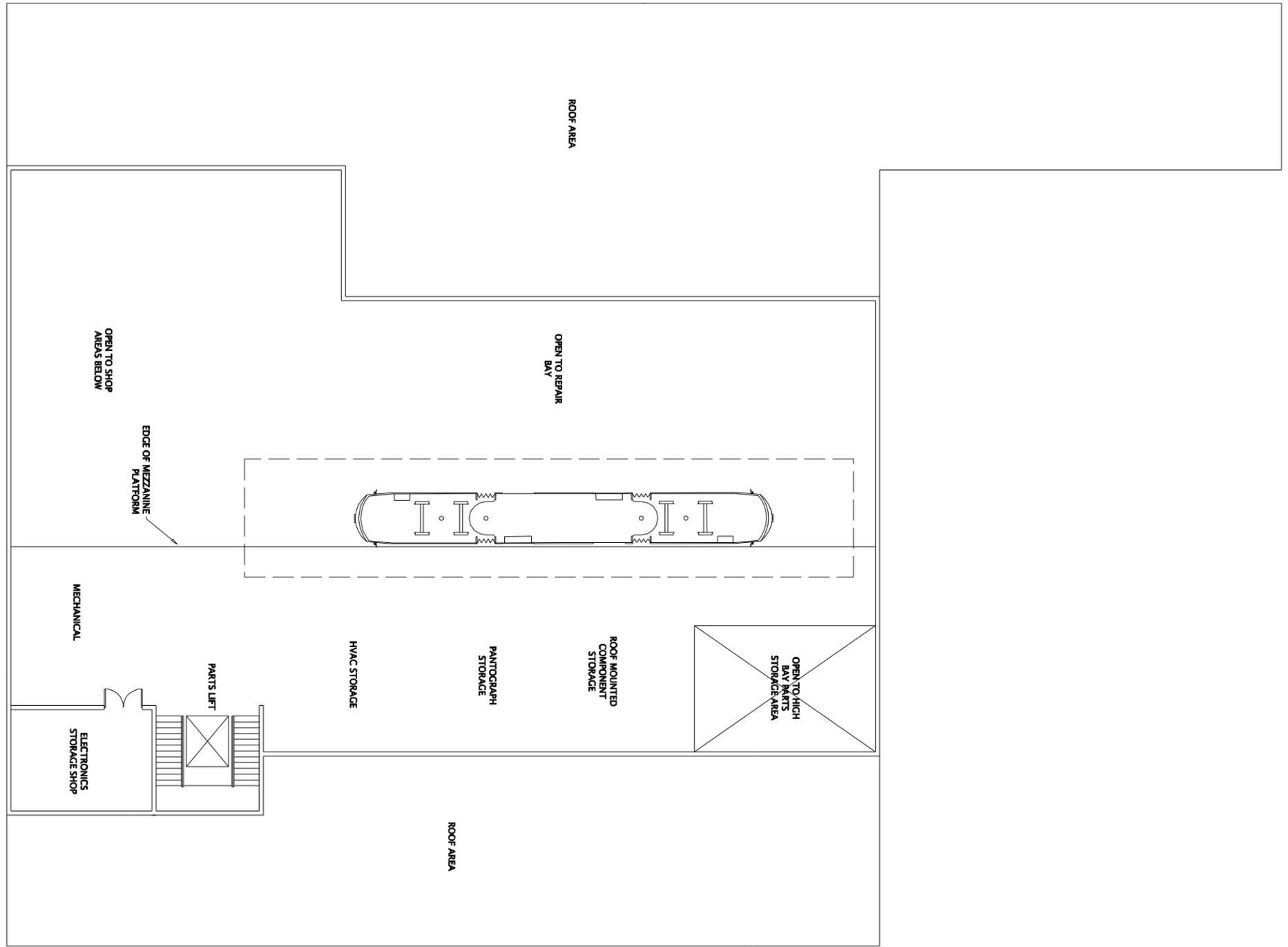
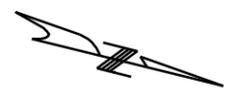


SHEET NO. V4	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	 <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	 HDR Engineering, Inc.	KANSAS CITY DOWNTOWN STREETCAR  VEHICLE MAINTENANCE FACILITY SITE PLAN 4 OF 4	SHEET NO. V4
SHEET FILE: VMFSite_04.dgn			PLOT DATE: 8/3/2012 1:55:13 PM		PLOT DATE: 8/3/2012 1:55:13 PM BY: dbernard				



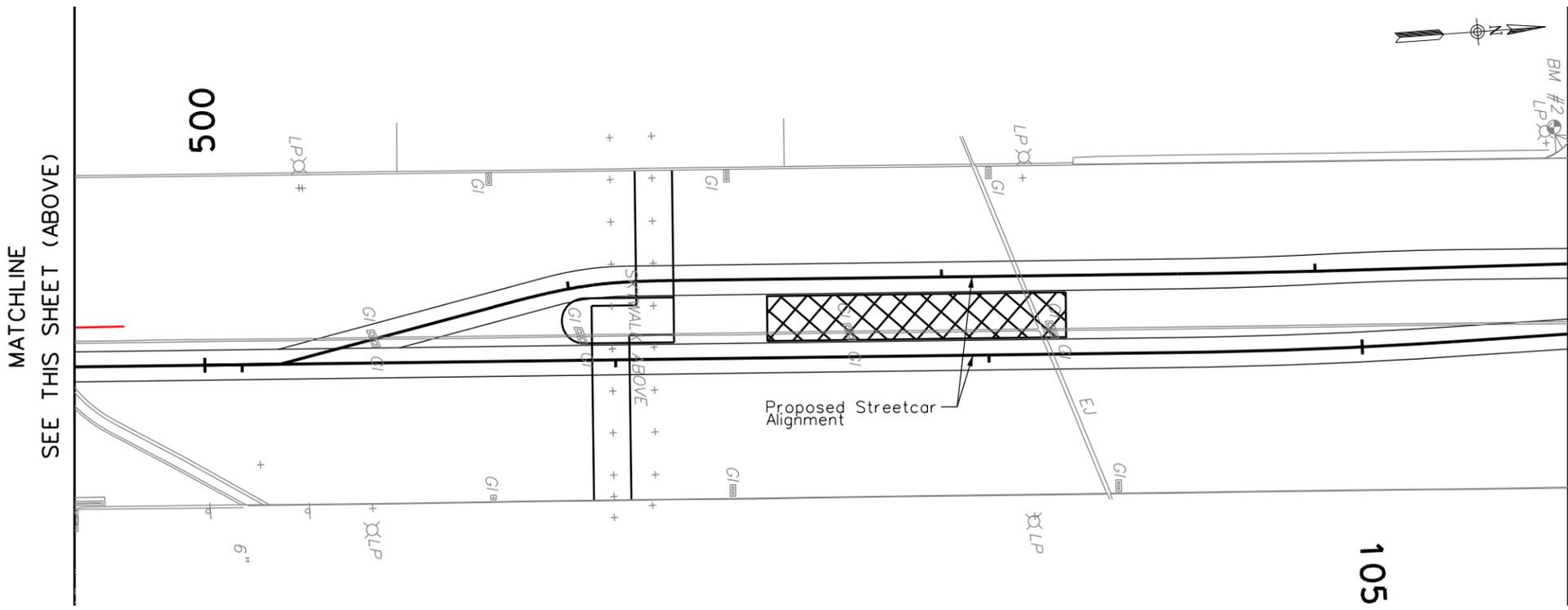
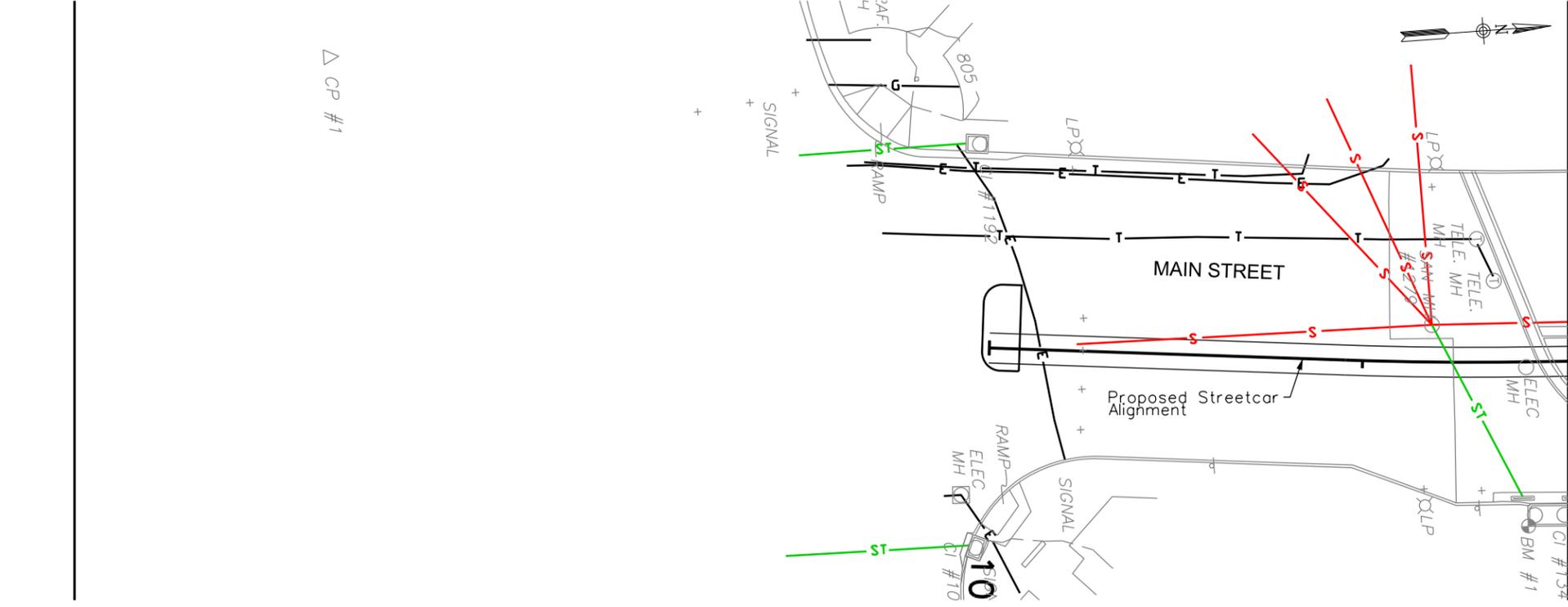
VMF BUILDING - FLOOR PLAN

SHEET NO. V5	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  VEHICLE MAINTENANCE FACILITY FLOOR PLAN	SHEET NO. V5
				DRAWN BY	DIV. ENGINEER					
				CHECKED BY						
				APPROVED BY						
	SHEET FILE: VMF_FloorPlan.dgn			PLOT DATE: 8/3/2012 1:19:13 PM						



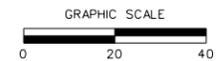
VMF BUILDING - MEZZANINE PLAN

SHEET NO. V6	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED	  <p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p> 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO. V6
				DRAWN BY	DIV. ENGINEER			
				CHECKED BY				
				APPROVED BY				
SHEET FILE: VMF_MezzPlan.dgn		PLOT DATE: 8/3/2012 1:19:19 PM				VEHICLE MAINTENANCE FACILITY MEZZANINE PLAN		



MATCHLINE  
SEE THIS SHEET (BELOW)

MATCHLINE  
SEE SHEET UP2

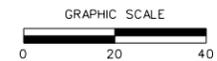
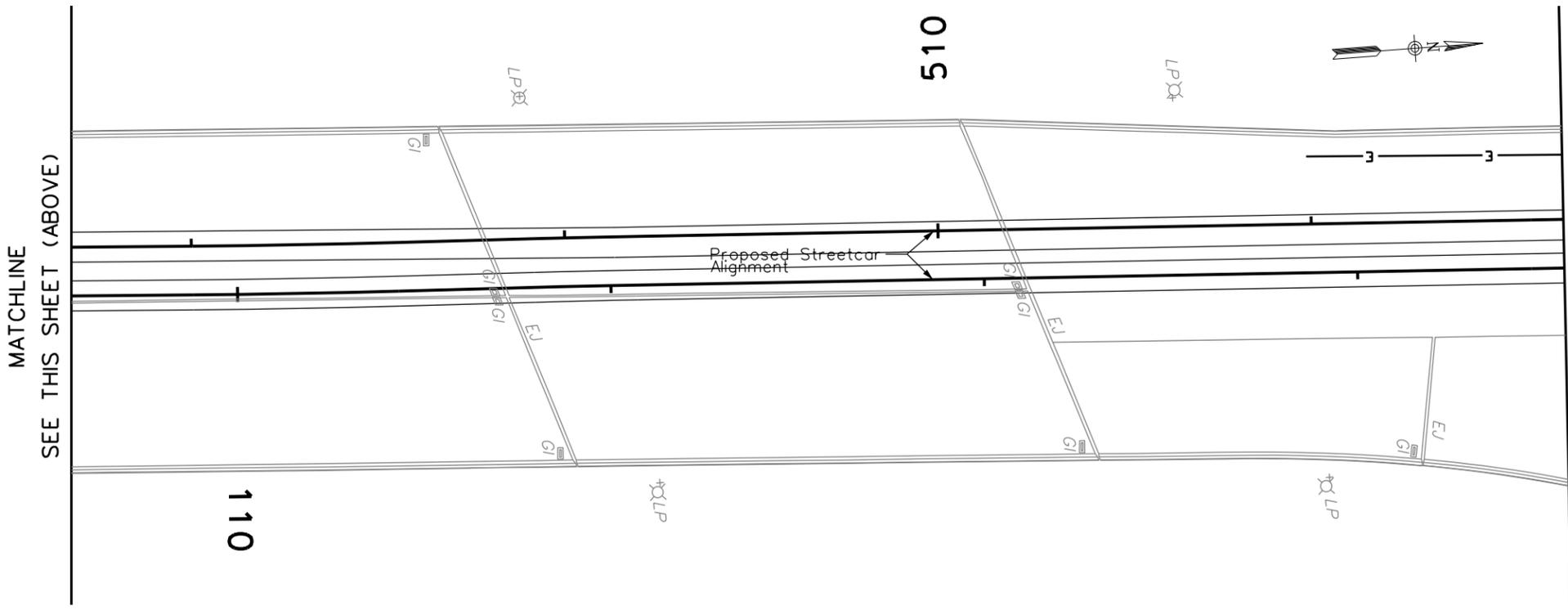
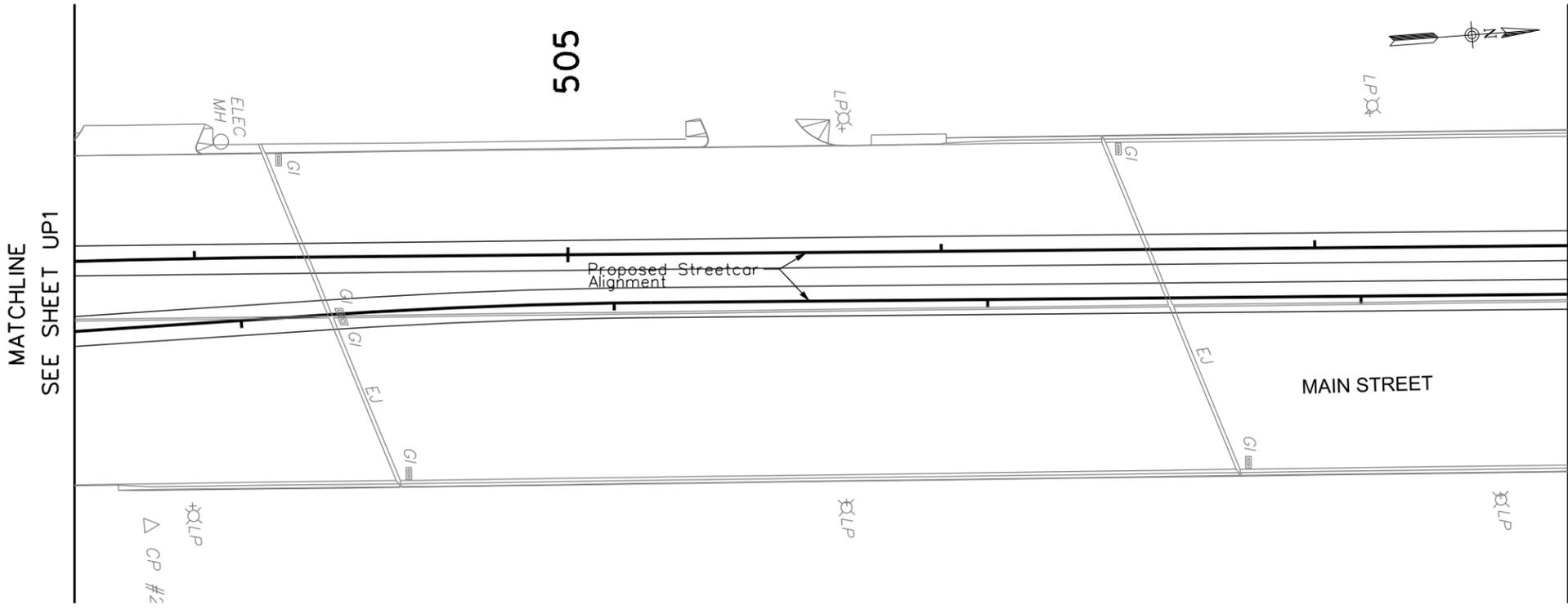


**LEGEND**

	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.  UP1	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED					KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Public Utilities	SHEET NO.  UP1
				DRAWN BY	DIV. ENGINEER						
				CHECKED BY							
				APPROVED BY							
SHEET FILE: UP_01.dgn			PLOT DATE: 8/3/2012 9:32:41 AM		BY: Design						

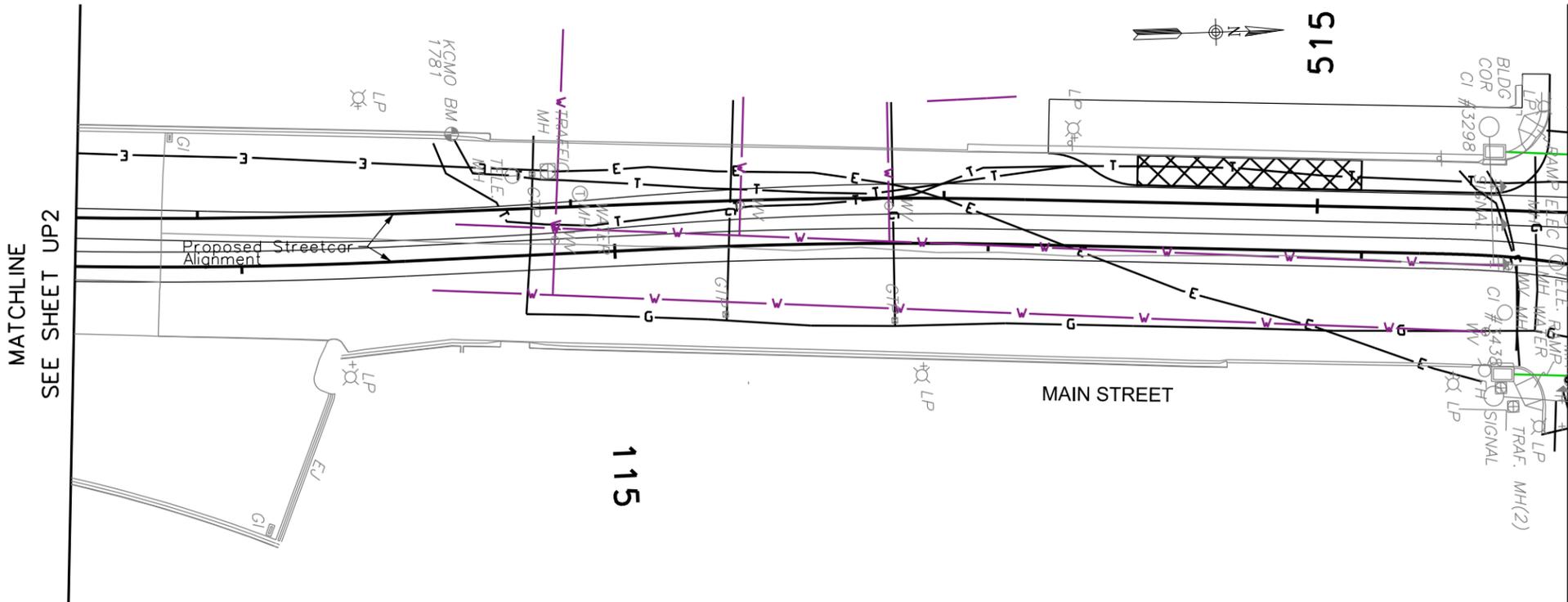


**LEGEND**

	W	KCMO WATER LINE
	W	KCMO WATER LINE (MAP)
	ST	KCMO STORM SEWER
	S	KCMO SANITARY SEWER

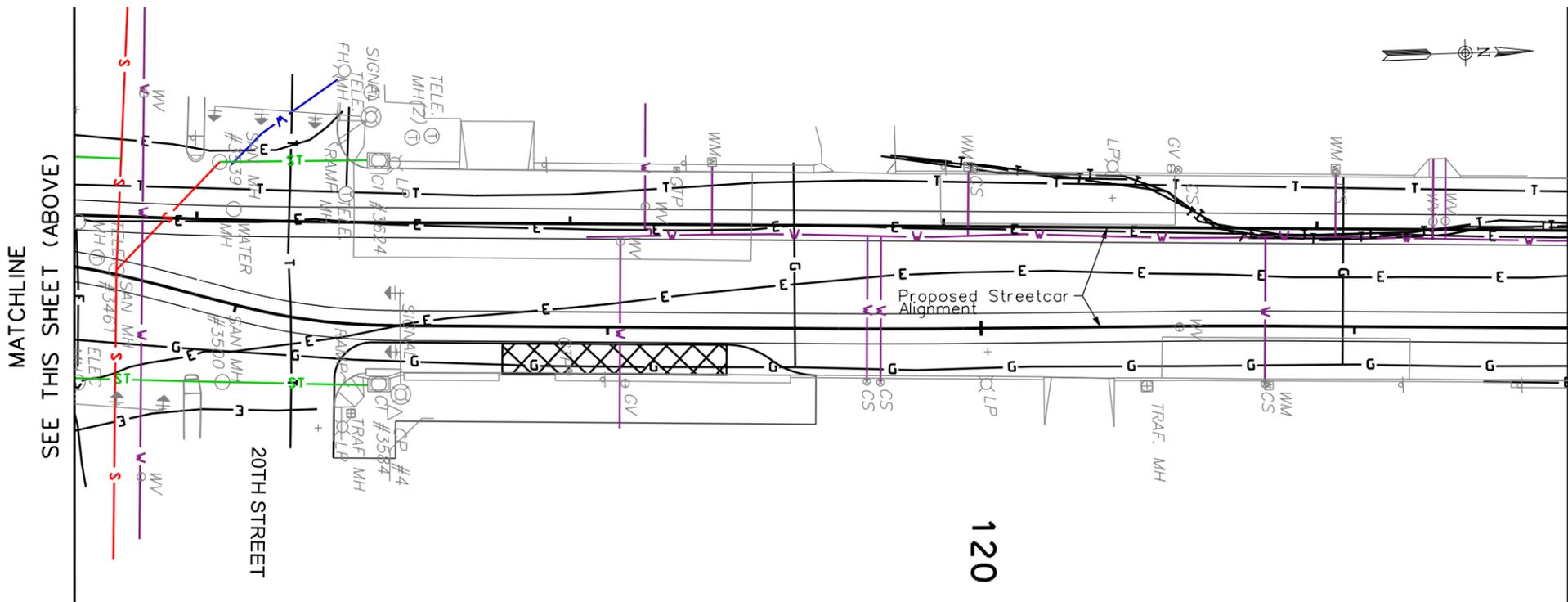
- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	  <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Public Utilities	SHEET NO.
UP2		DRAWN BY	DIV. ENGINEER			UP2	
		CHECKED BY					
		APPROVED BY					
SHEET FILE: UP_02.dgn		PLOT DATE: 8/2/2012 4:50:52 PM		<p style="font-size: small;">PLOT DATE: 8/2/2012 4:50:52 PM BY: Design</p>			



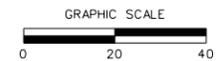
MATCHLINE  
SEE SHEET UP2

MATCHLINE  
SEE THIS SHEET (BELOW)



MATCHLINE  
SEE THIS SHEET (ABOVE)

MATCHLINE  
SEE SHEET UP4



**LEGEND**

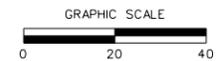
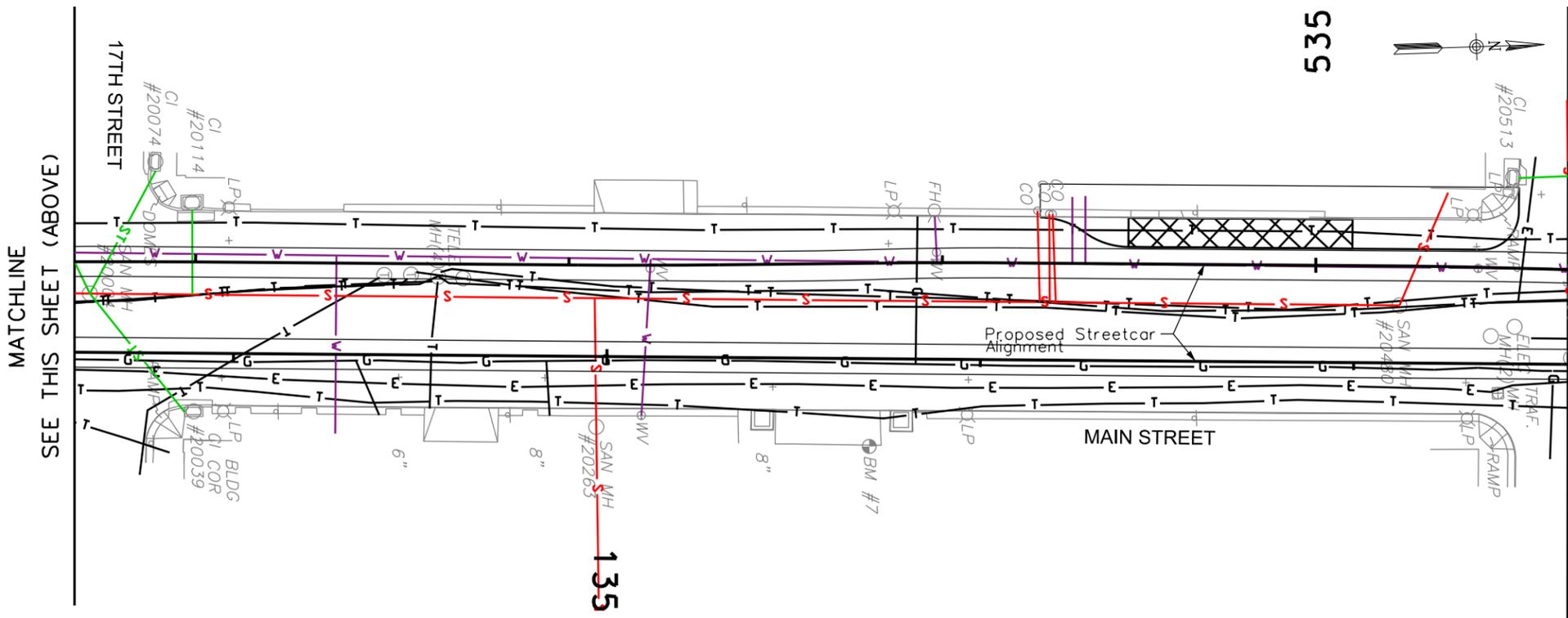
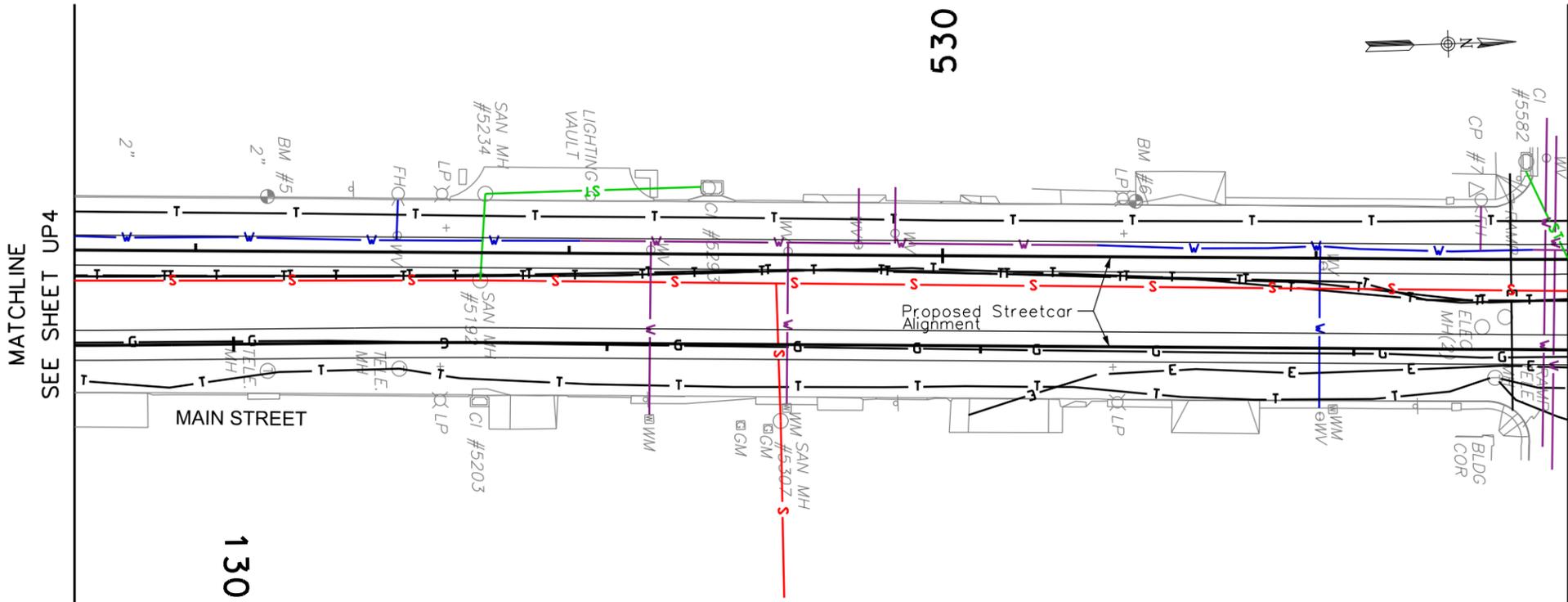
	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	 <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP3		DRAWN BY	DIV. ENGINEER			Utility Composite Drawings	UP3
		CHECKED BY				Public Utilities	
		APPROVED BY					
SHEET FILE: Sheet03.dgn		PLOT DATE: 8/1/2012 5:27:04 PM					

PLOT DATE: 8/1/2012 5:27:04 PM BY: Design



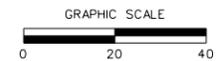
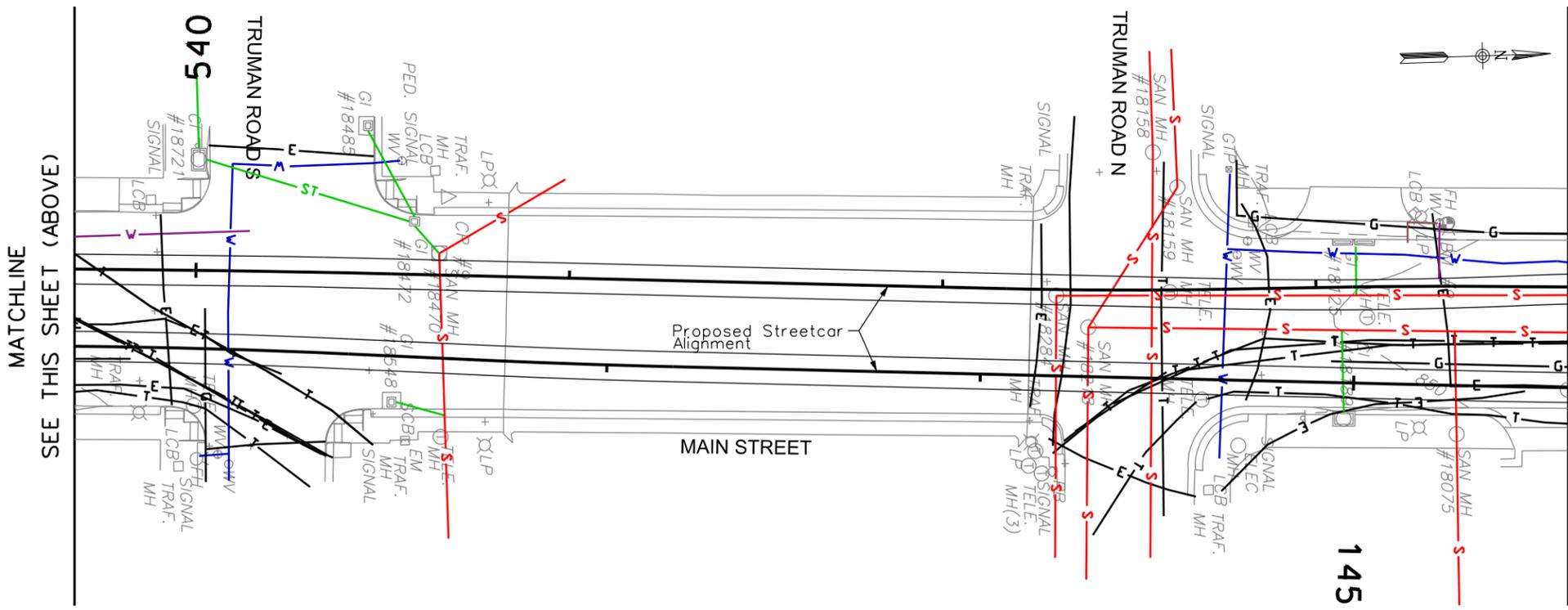
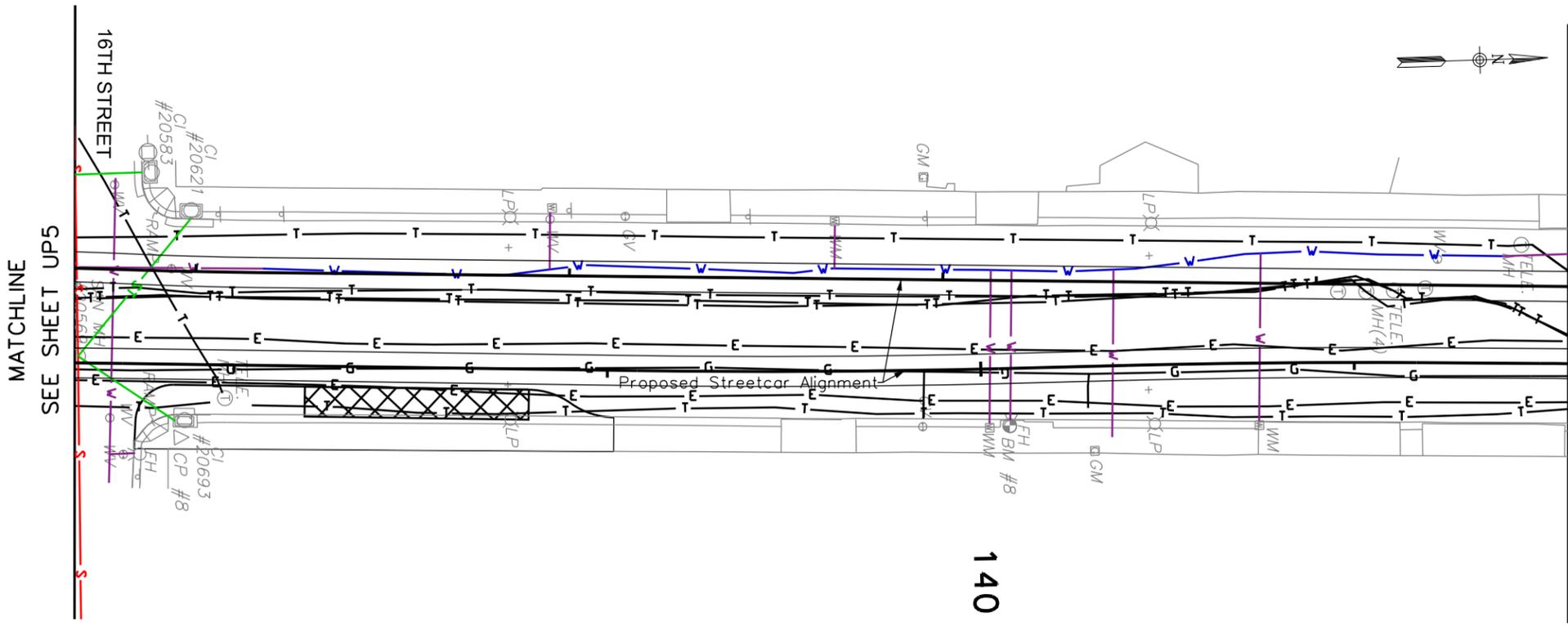


**LEGEND**

	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	  <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP5		DRAWN BY	DIV. ENGINEER			Utility Composite Drawings	UP5
		CHECKED BY				Public Utilities	
		APPROVED BY					
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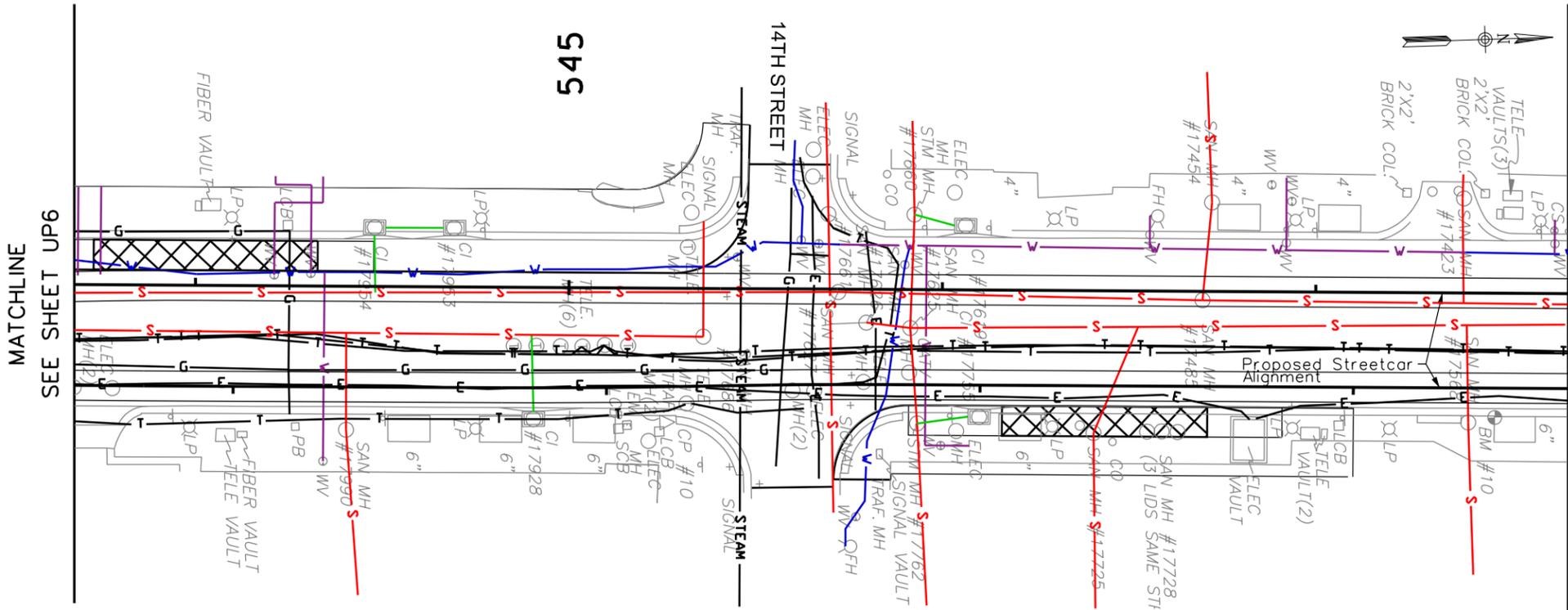


**LEGEND**

	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER

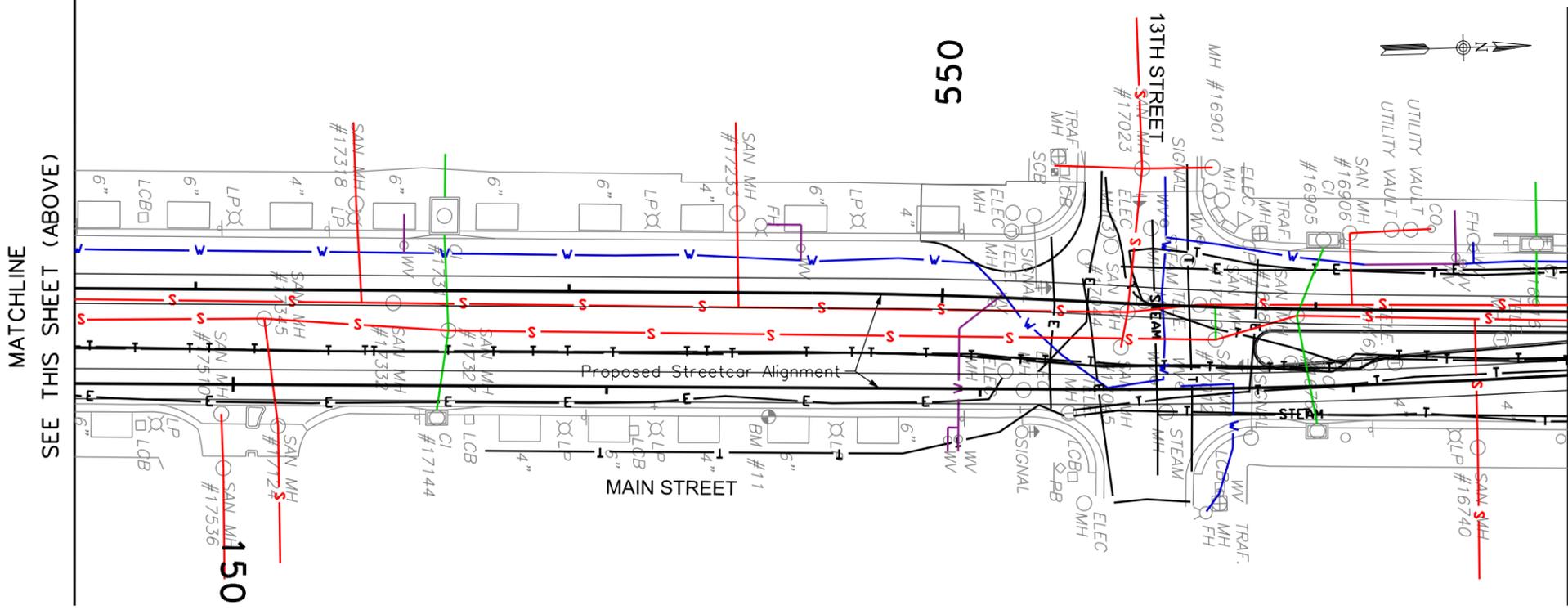
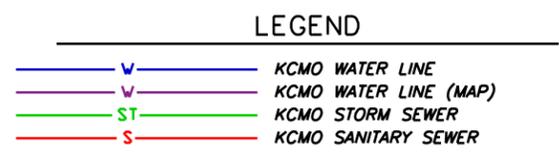
- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP6		DRAWN BY DIV. ENGINEER				Utility Composite Drawings	UP6
		CHECKED BY				Public Utilities	
		APPROVED BY					
SHEET FILE: Sheet06.dgn		PLOT DATE: 8/1/2012 5:28:13 PM		BY: Design		PLOT DATE: 8/1/2012 5:28:13 PM	



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SEE SHEET UP6

MATCHLINE  
SEE THIS SHEET (BELOW)

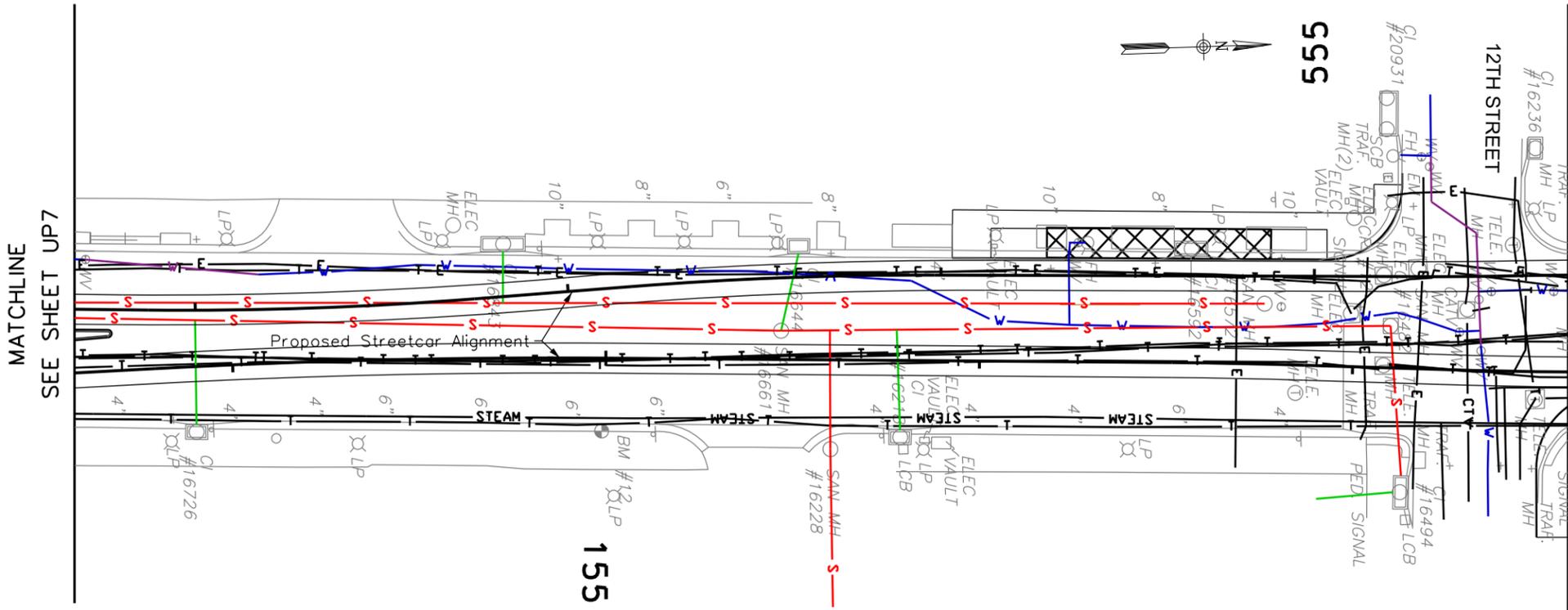


MATCHLINE  
SEE THIS SHEET (ABOVE)

MATCHLINE  
SEE SHEET UP8

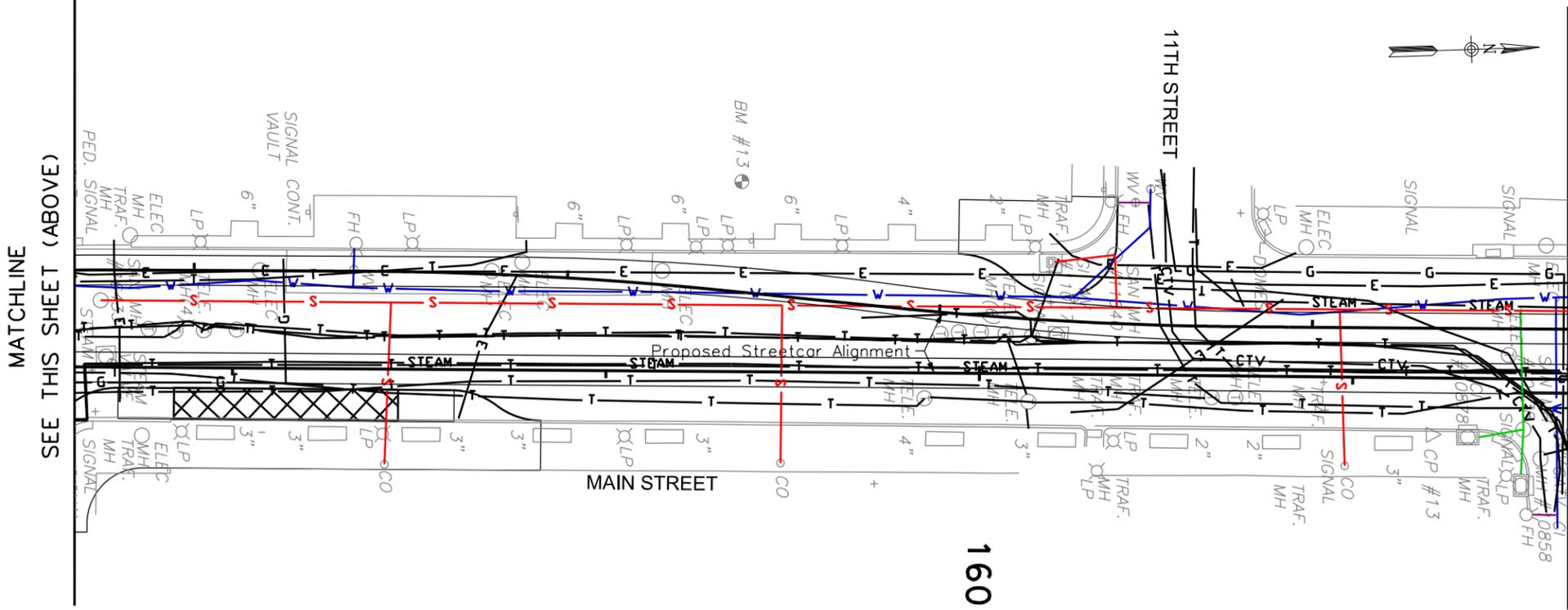
- GENERAL NOTES:**
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP7		DRAWN BY	DIV. ENGINEER				Utility Composite Drawings	UP7
		CHECKED BY					Public Utilities	
		APPROVED BY						
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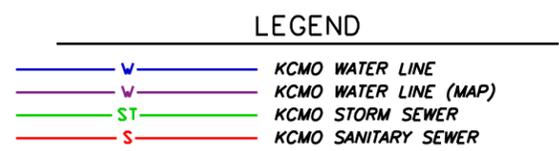
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SEE SHEET UP7

MATCHLINE  
SEE THIS SHEET (BELOW)



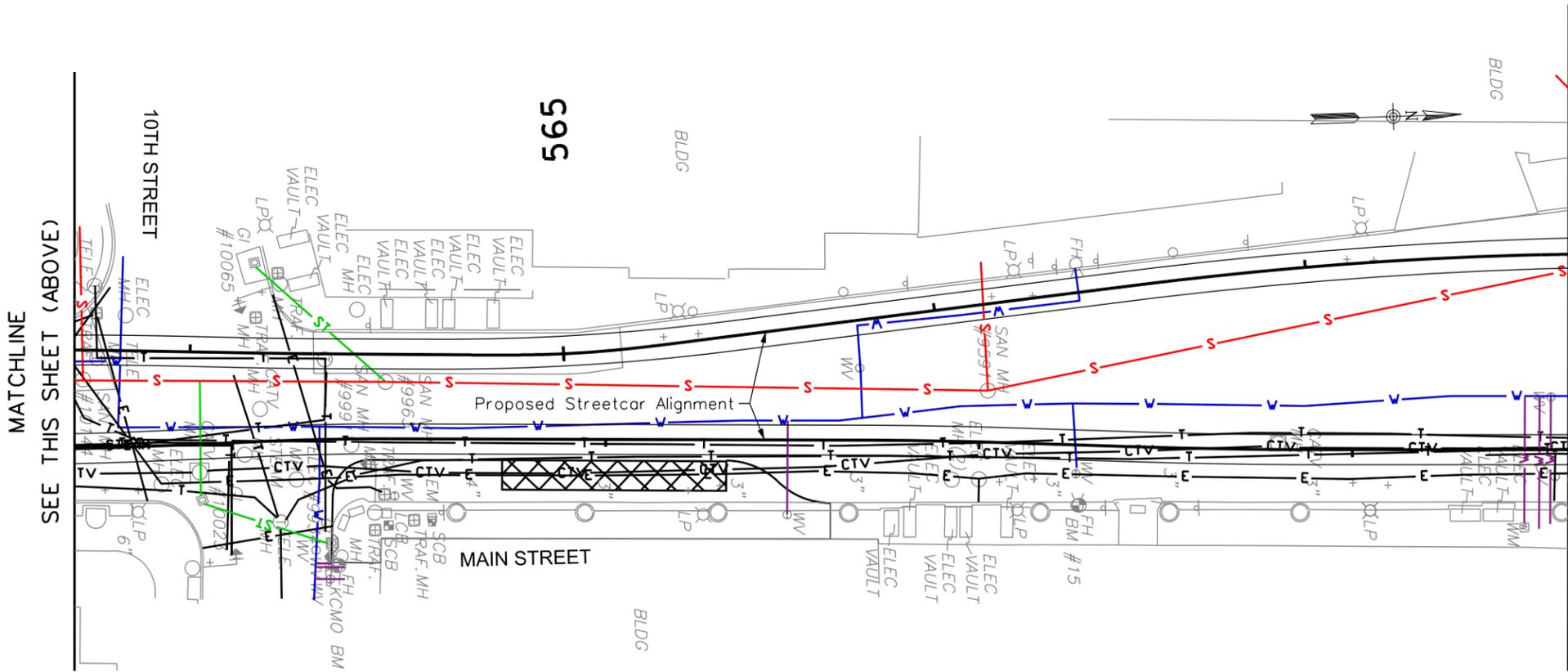
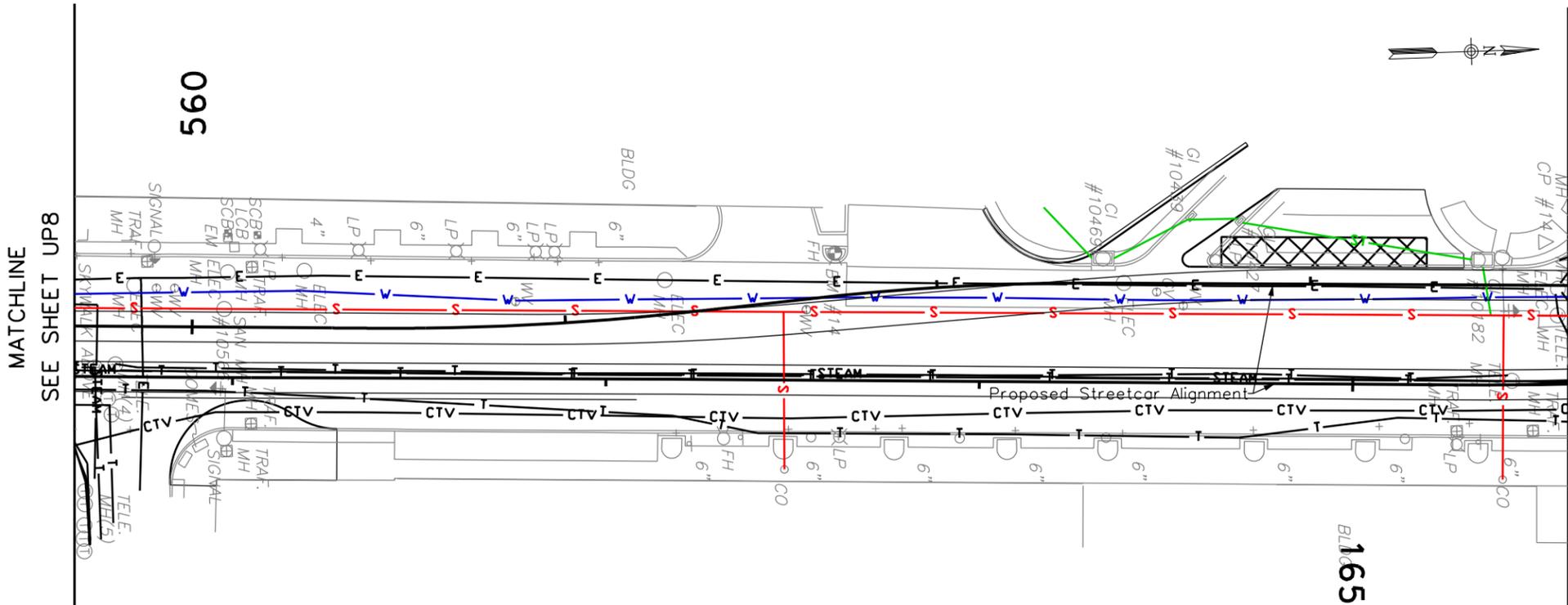
MATCHLINE  
SEE THIS SHEET (ABOVE)

MATCHLINE  
SEE SHEET UP9



- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	 <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP8		DRAWN BY	DIV. ENGINEER			Utility Composite Drawings	UP8
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		APPROVED BY					
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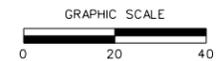


MATCHLINE  
SEE SHEET UP8

MATCHLINE  
SEE THIS SHEET (ABOVE)

MATCHLINE  
SEE THIS SHEET (BELOW)

MATCHLINE  
SEE SHEET UP10

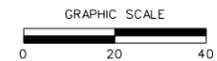
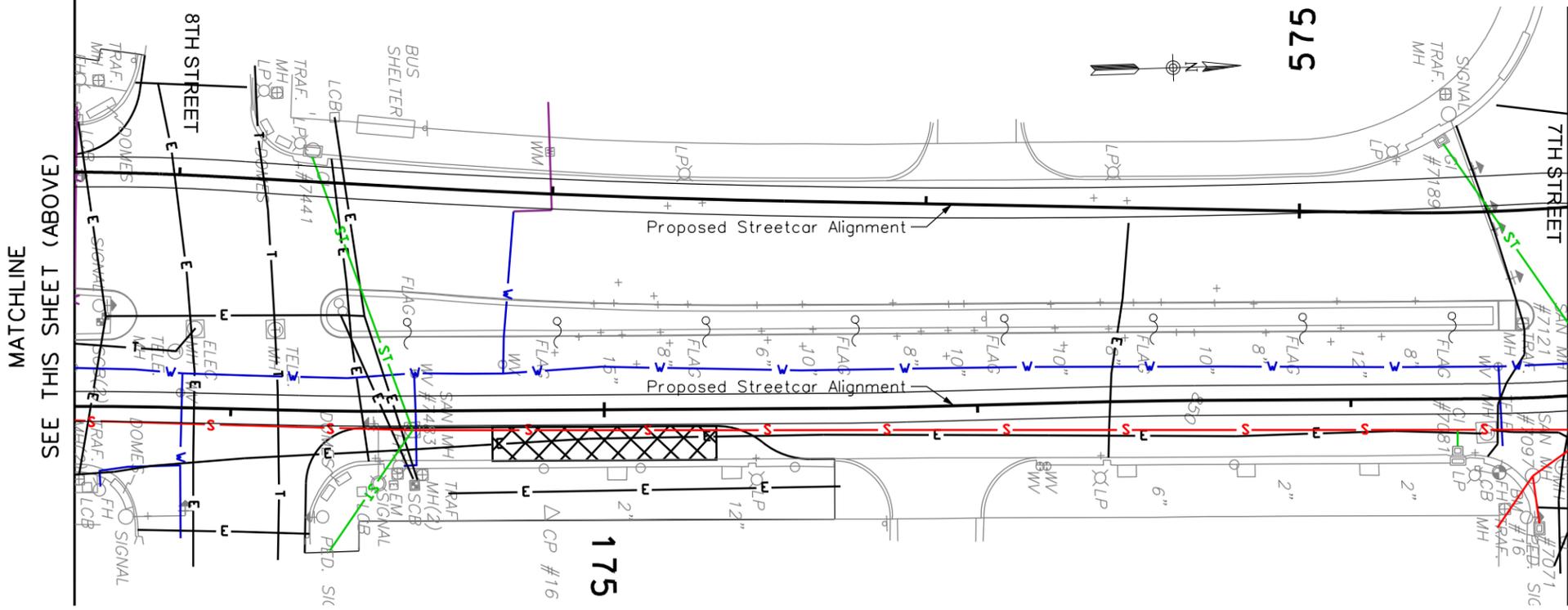
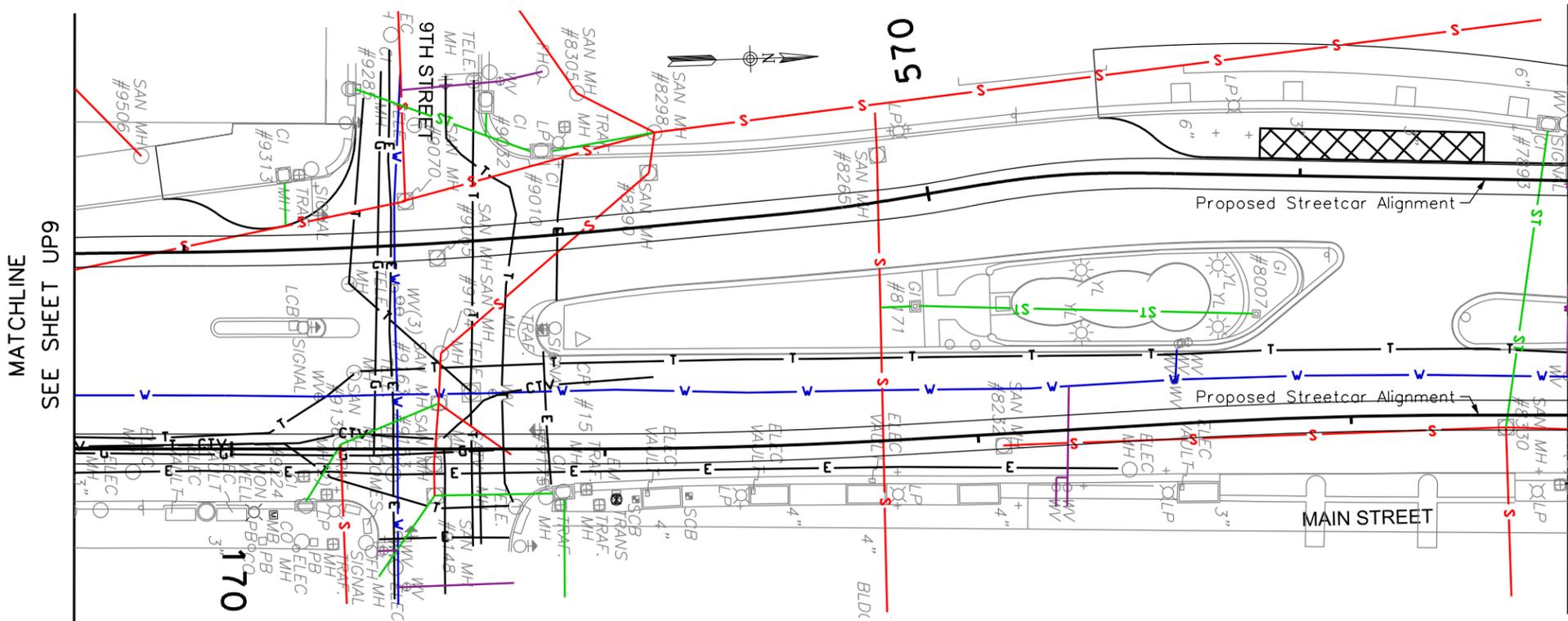


**LEGEND**

	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.  UP9	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ISSUE	DATE	DESCRIPTION				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>DESIGNED BY</th> <th>DATE APPROVED</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>DRAWN BY</th> <th>DIV. ENGINEER</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <th>CHECKED BY</th> <td> </td> </tr> <tr> <th>APPROVED BY</th> <td> </td> </tr> </table>	DESIGNED BY	DATE APPROVED			DRAWN BY	DIV. ENGINEER			CHECKED BY		APPROVED BY			<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	  	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>Utility Composite Drawings</p> <p>Public Utilities</p>	SHEET NO.  UP9
ISSUE	DATE	DESCRIPTION																							
DESIGNED BY	DATE APPROVED																								
DRAWN BY	DIV. ENGINEER																								
CHECKED BY																									
APPROVED BY																									
SHEET FILE: Sheet09.dgn		PLOT DATE: 8/1/2012 5:29:24 PM		PLOT DATE: 8/1/2012 5:29:24 PM BY: Design																					



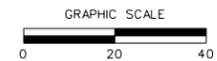
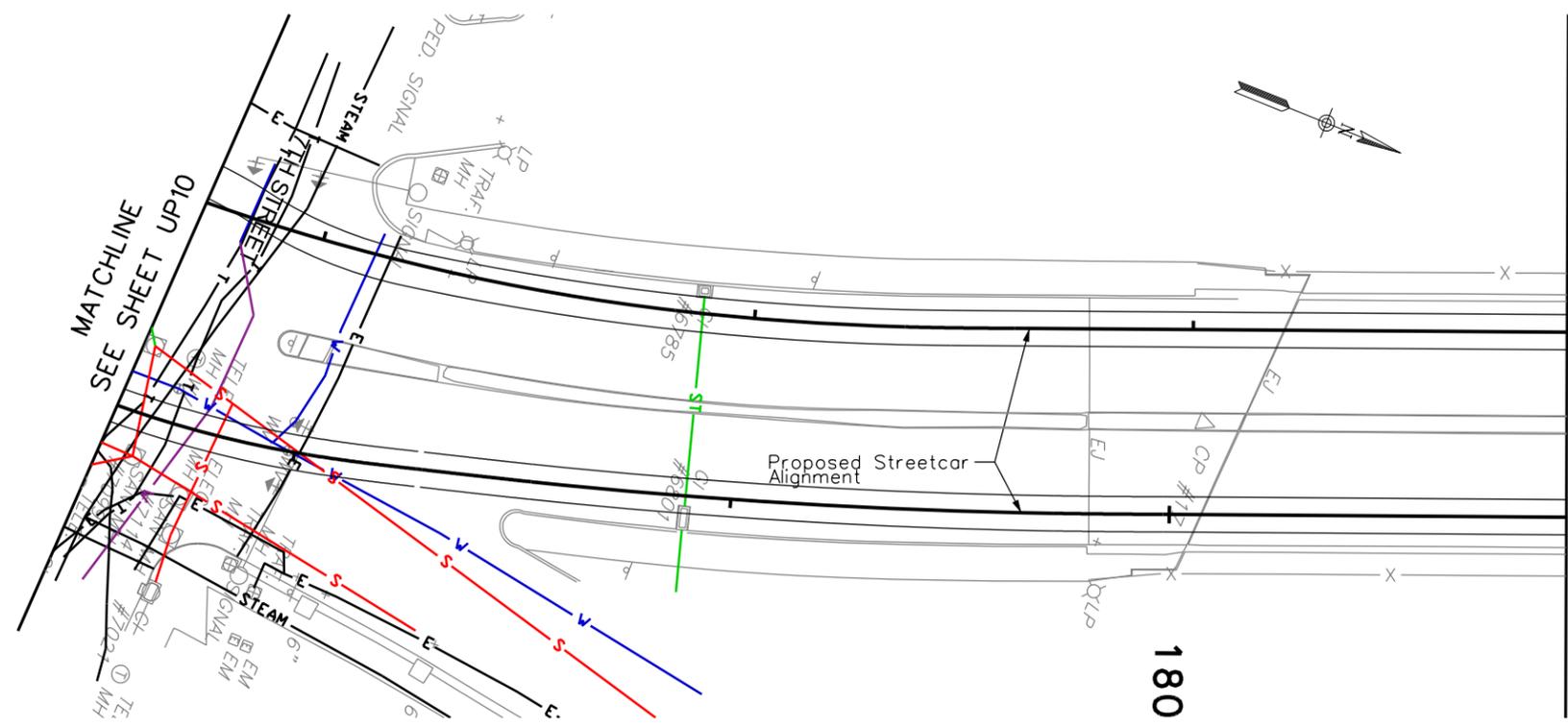
**LEGEND**

	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	 <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP10		DRAWN BY	DIV. ENGINEER			Utility Composite Drawings	UP10
		CHECKED BY				Public Utilities	
		APPROVED BY					
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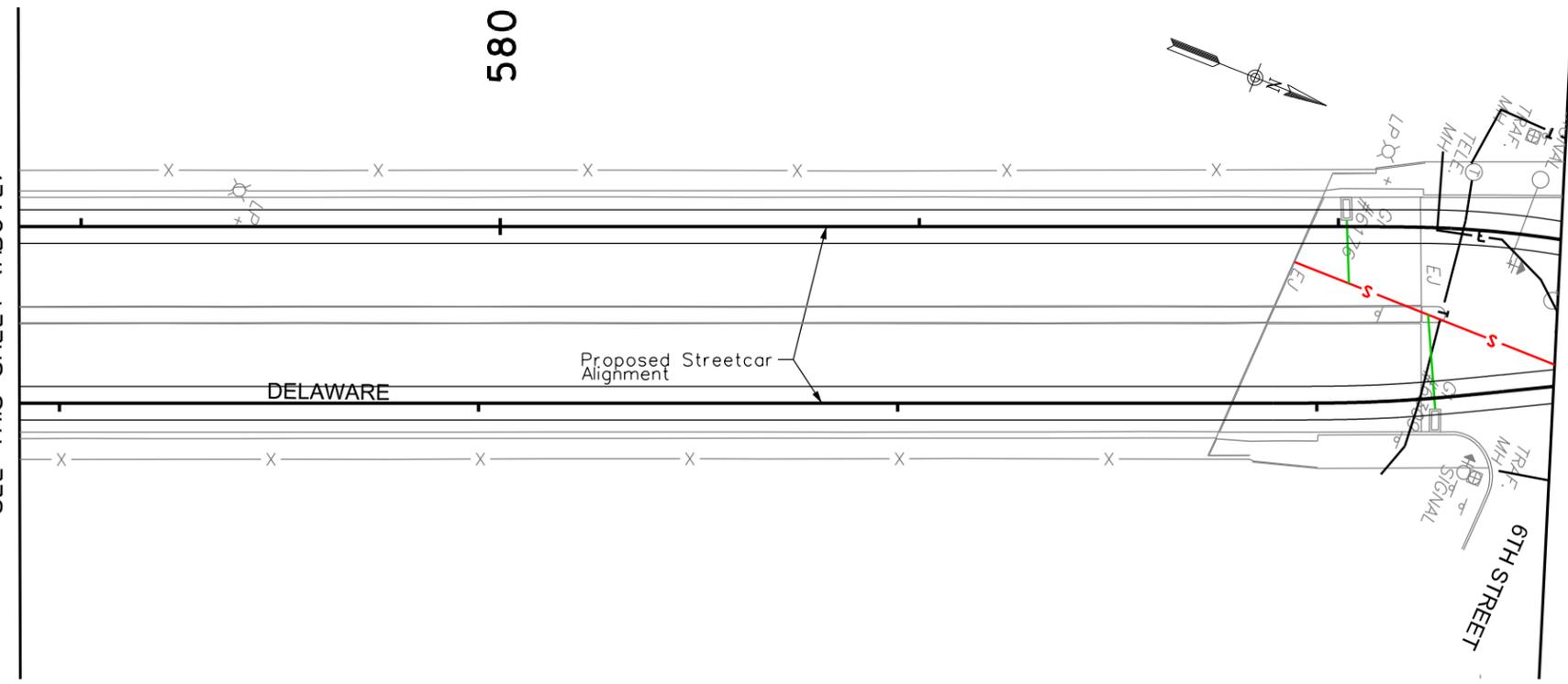
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**LEGEND**

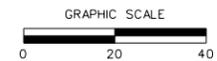
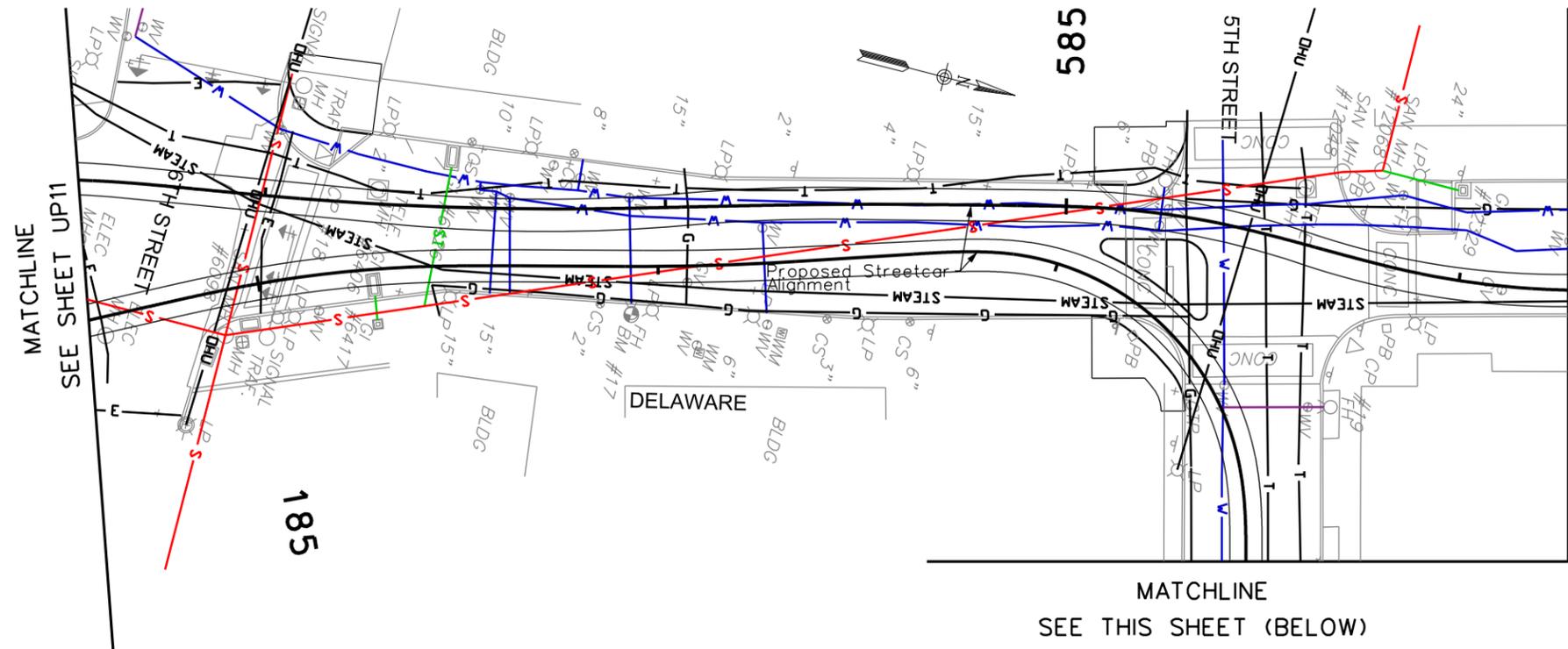
	<b>W</b>	KCMO WATER LINE
	<b>W</b>	KCMO WATER LINE (MAP)
	<b>ST</b>	KCMO STORM SEWER
	<b>S</b>	KCMO SANITARY SEWER

MATCHLINE  
SEE THIS SHEET (BELOW)



- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.  UP11	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Public Utilities	SHEET NO.  UP11
				DRAWN BY	DIV. ENGINEER					
				CHECKED BY						
				APPROVED BY						
SHEET FILE: Sheet11.dgn		PLOT DATE: 8/1/2012 5:30:13 PM								



**LEGEND**

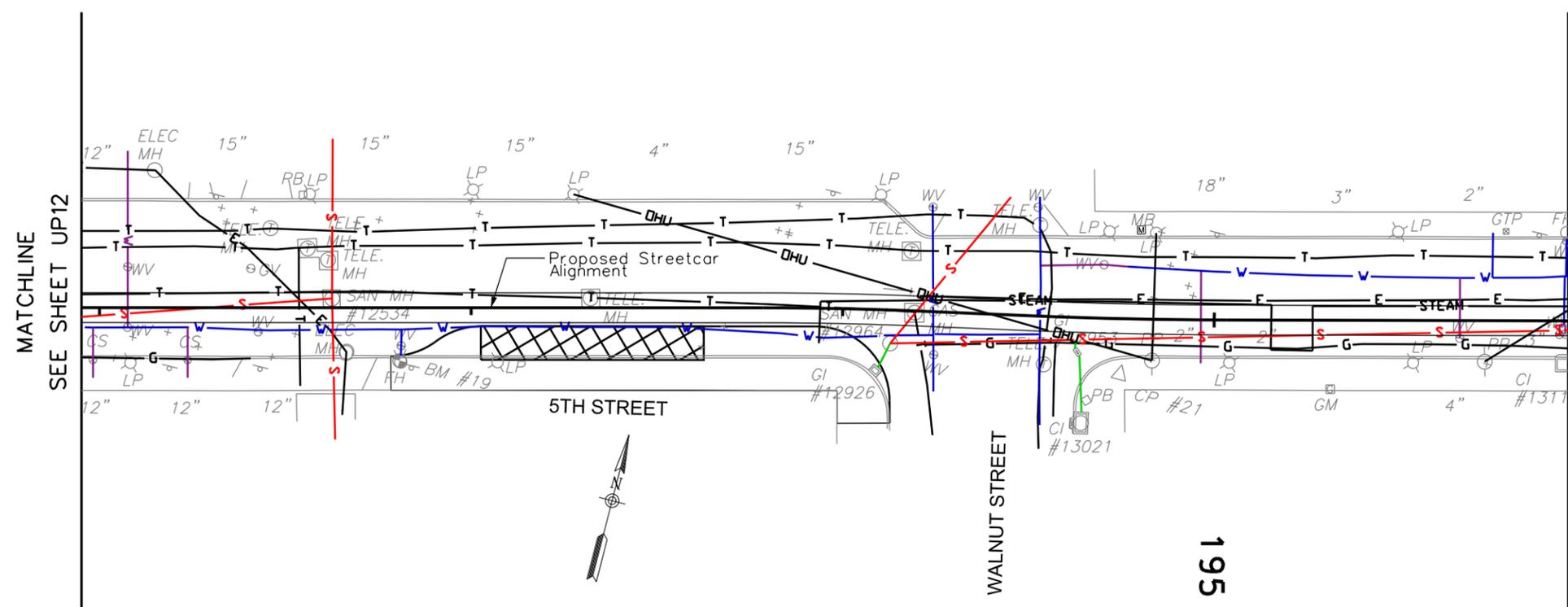
	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER



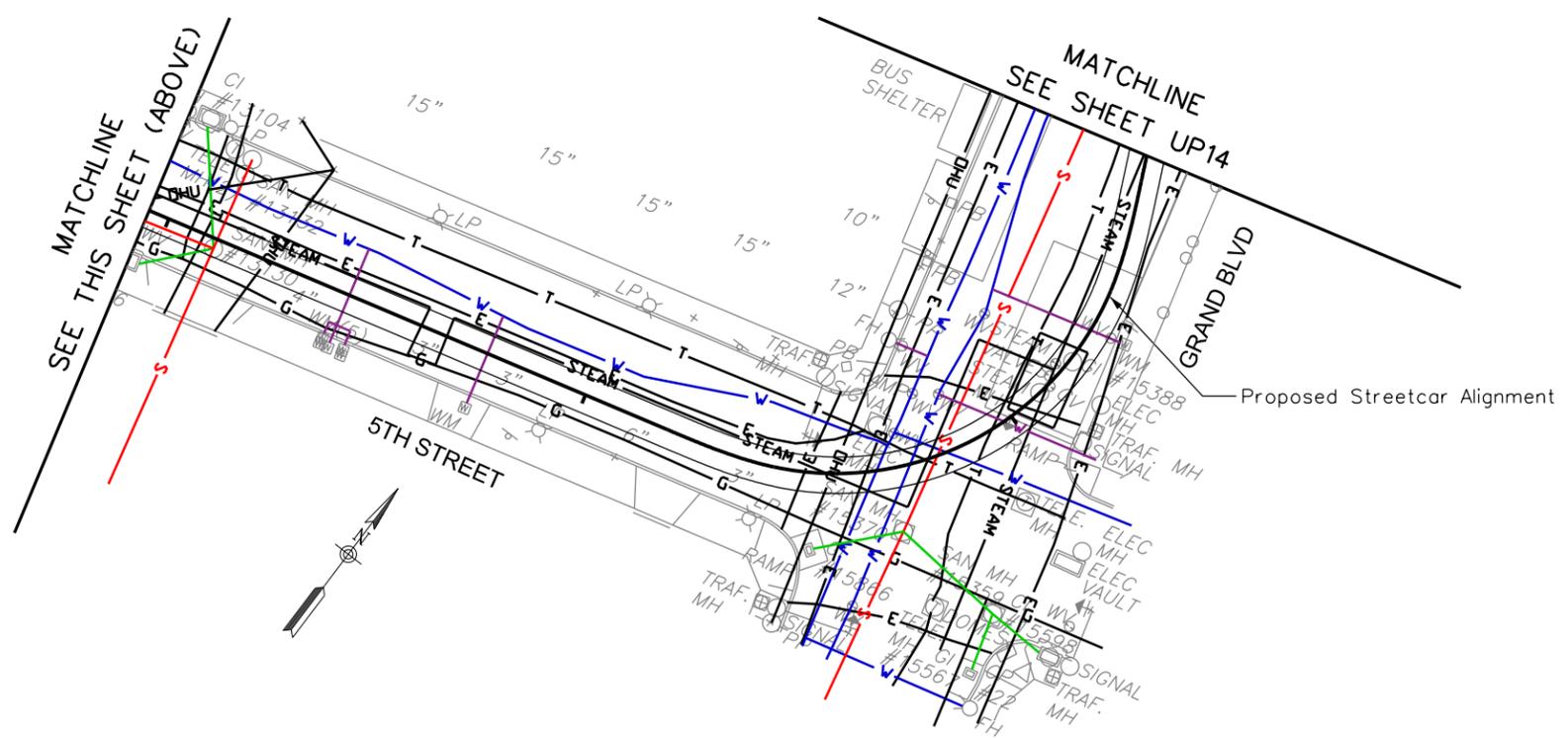
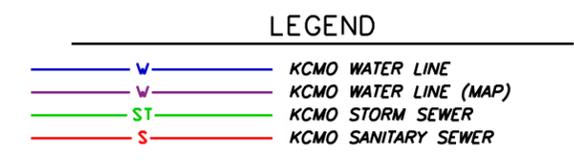
- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.  UP12	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>	 	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>Utility Composite Drawings</p> <p>Public Utilities</p>	SHEET NO.  UP12
				DRAWN BY	DIV. ENGINEER					
				CHECKED BY						
				APPROVED BY						
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PLOT DATE: 8/1/2012 5:30:39 PM BY: Design

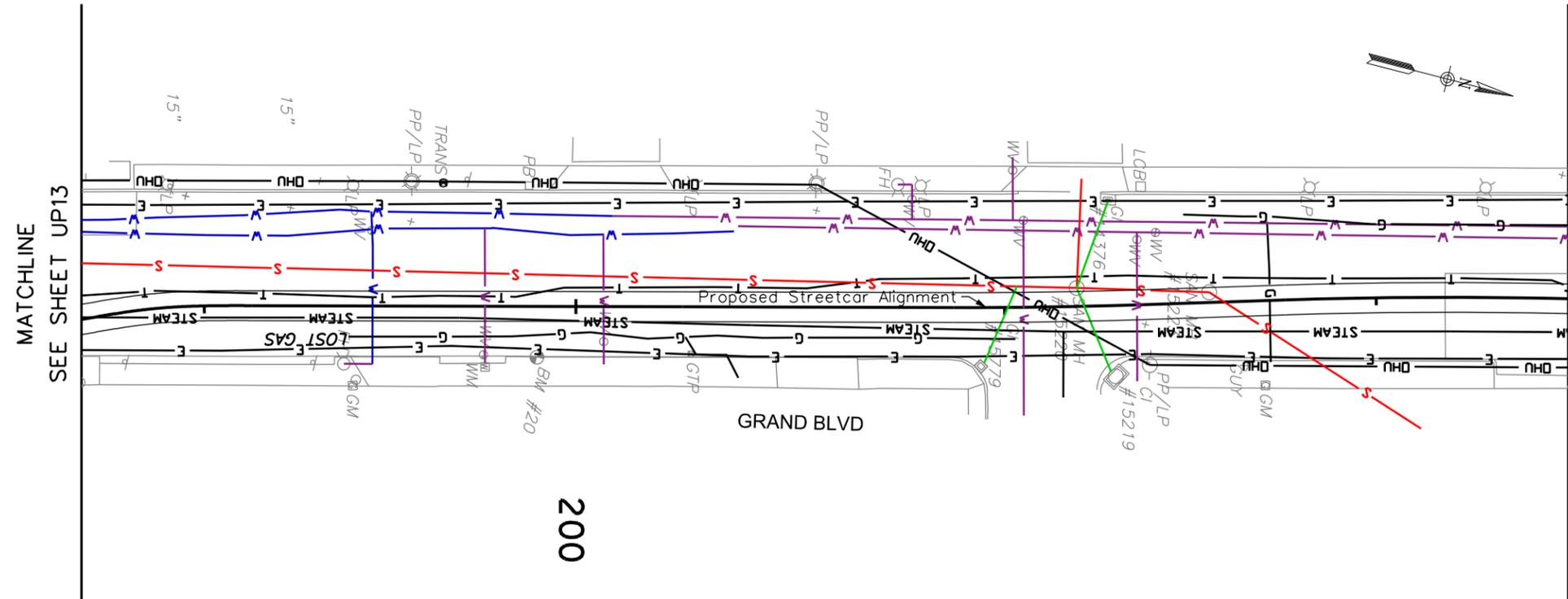
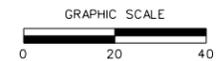


MATCHLINE SEE THIS SHEET (BELOW)



- GENERAL NOTES:**
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED			<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP13					<b>NOT FOR CONSTRUCTION</b>		Utility Composite Drawings Public Utilities	UP13
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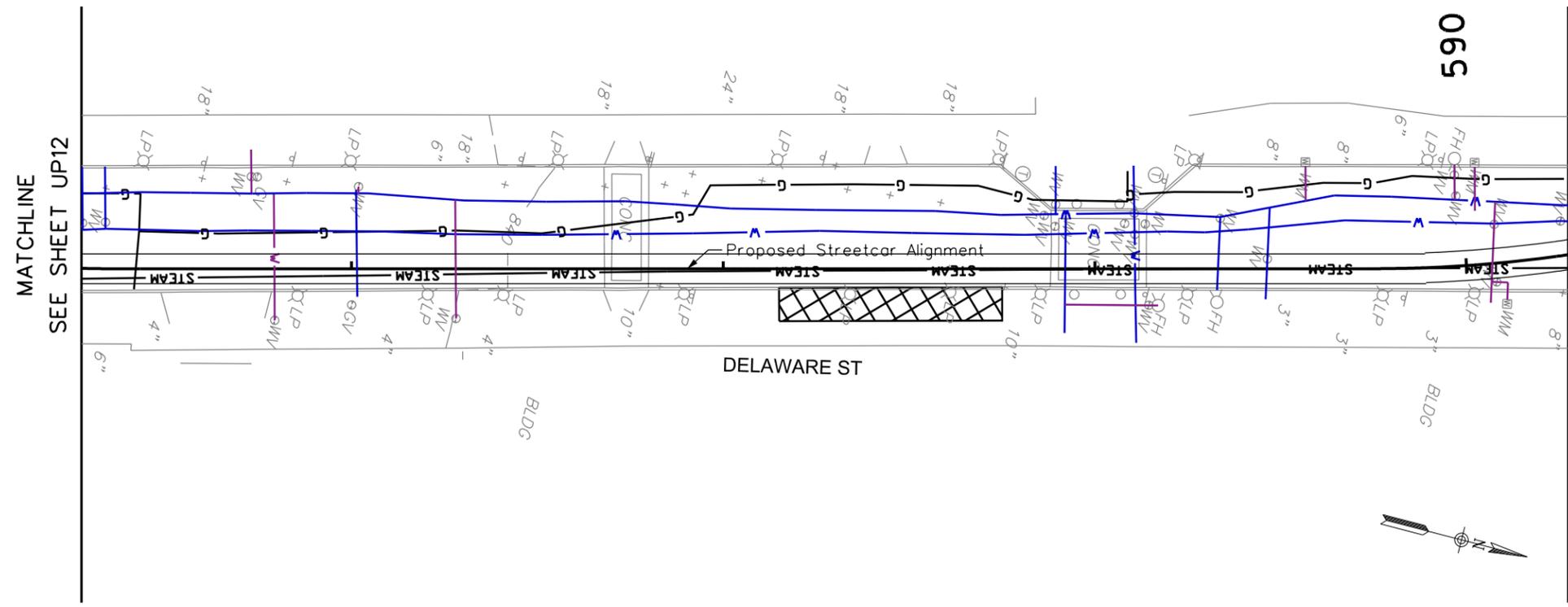


MATCHLINE  
SEE SHEET UP16

LEGEND

- W — KCMO WATER LINE
- W — KCMO WATER LINE (MAP)
- ST — KCMO STORM SEWER
- S — KCMO SANITARY SEWER

200



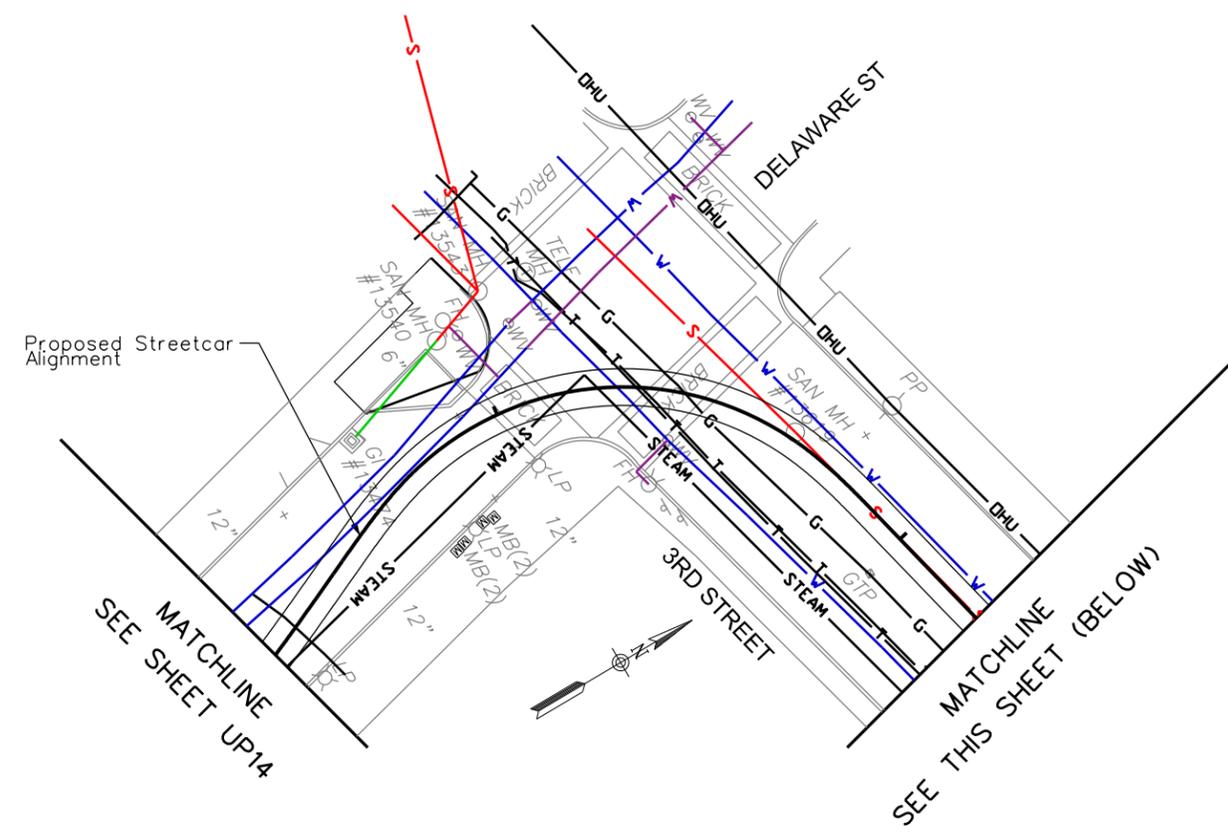
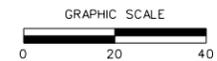
MATCHLINE  
SEE SHEET UP15

GENERAL NOTES:

- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
- 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

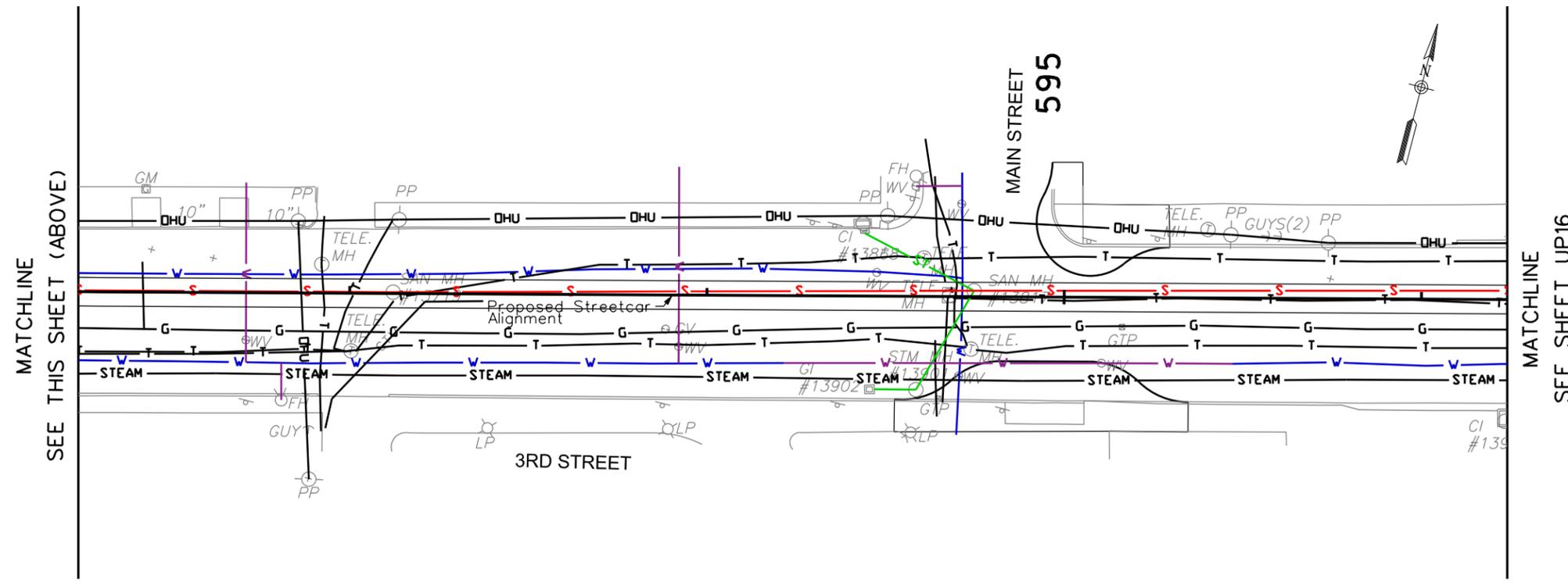


SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UP14		DRAWN BY	DIV. ENGINEER				Utility Composite Drawings	UP14
		CHECKED BY					Public Utilities	
		APPROVED BY						
SHEET FILE: Sheet14.dgn		PLOT DATE: 8/1/2012 5:54:16 PM						



**LEGEND**

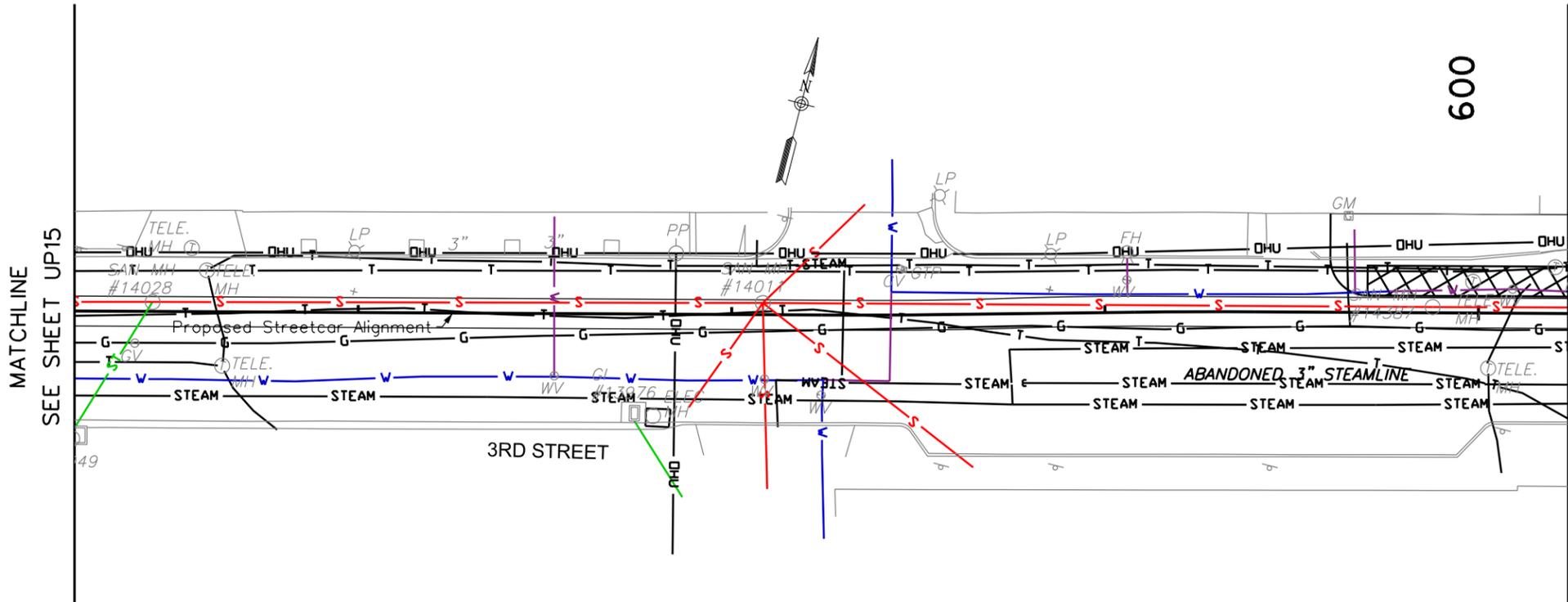
	KCMO WATER LINE
	KCMO WATER LINE (MAP)
	KCMO STORM SEWER
	KCMO SANITARY SEWER



- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

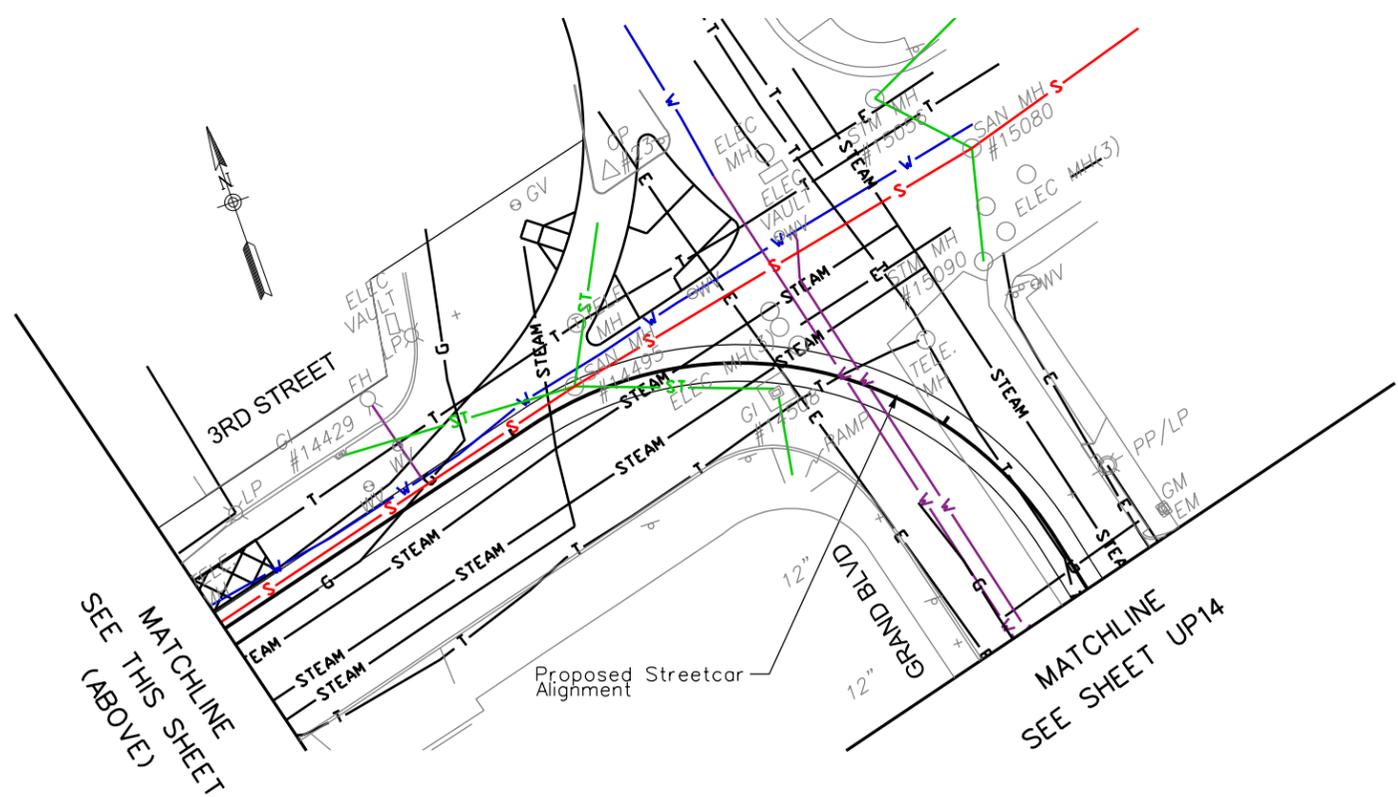
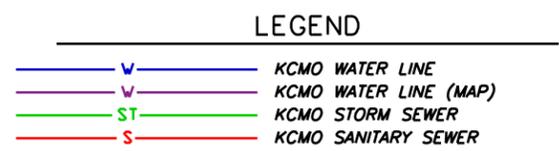
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UP15		DRAWN BY DIV. ENGINEER			Utility Composite Drawings	UP15
		CHECKED BY			Public Utilities	
		APPROVED BY				
SHEET FILE: Sheet15.dgn		PLOT DATE: 8/1/2012 5:54:52 PM				

PLOT DATE: 8/1/2012 5:54:52 PM BY: Design



MATCHLINE  
SEE SHEET UP15

MATCHLINE  
SEE THIS SHEET (BELOW)

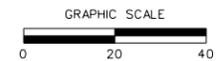


MATCHLINE  
SEE THIS SHEET  
(ABOVE)

MATCHLINE  
SEE SHEET UP14

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS ARE WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.  UP16	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED					KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Public Utilities	SHEET NO.  UP16
				DRAWN BY	DIV. ENGINEER						
				CHECKED BY							
				APPROVED BY							
SHEET FILE: Sheet16.dgn		PLOT DATE: 8/1/2012 5:55:13 PM		BY: Design							



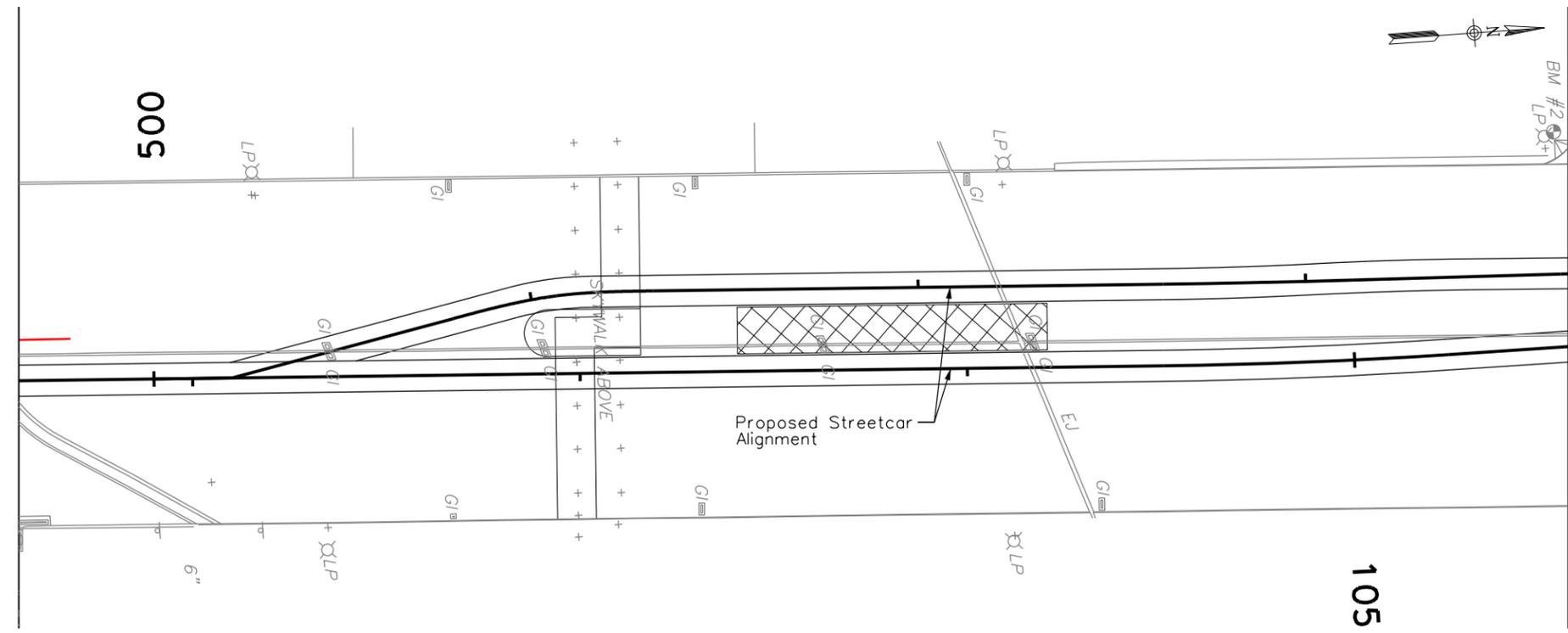
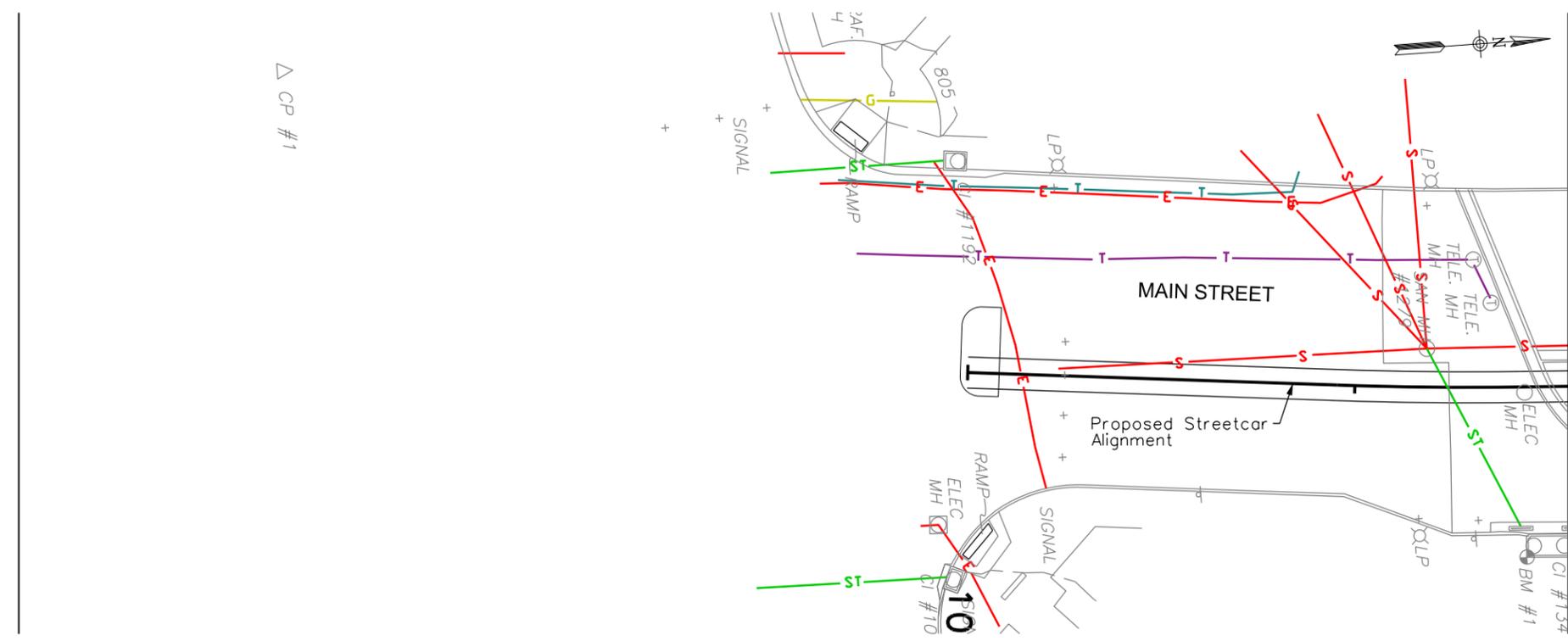
**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

MATCHLINE  
SEE THIS SHEET (BELOW)

MATCHLINE  
SEE SHEET UF2



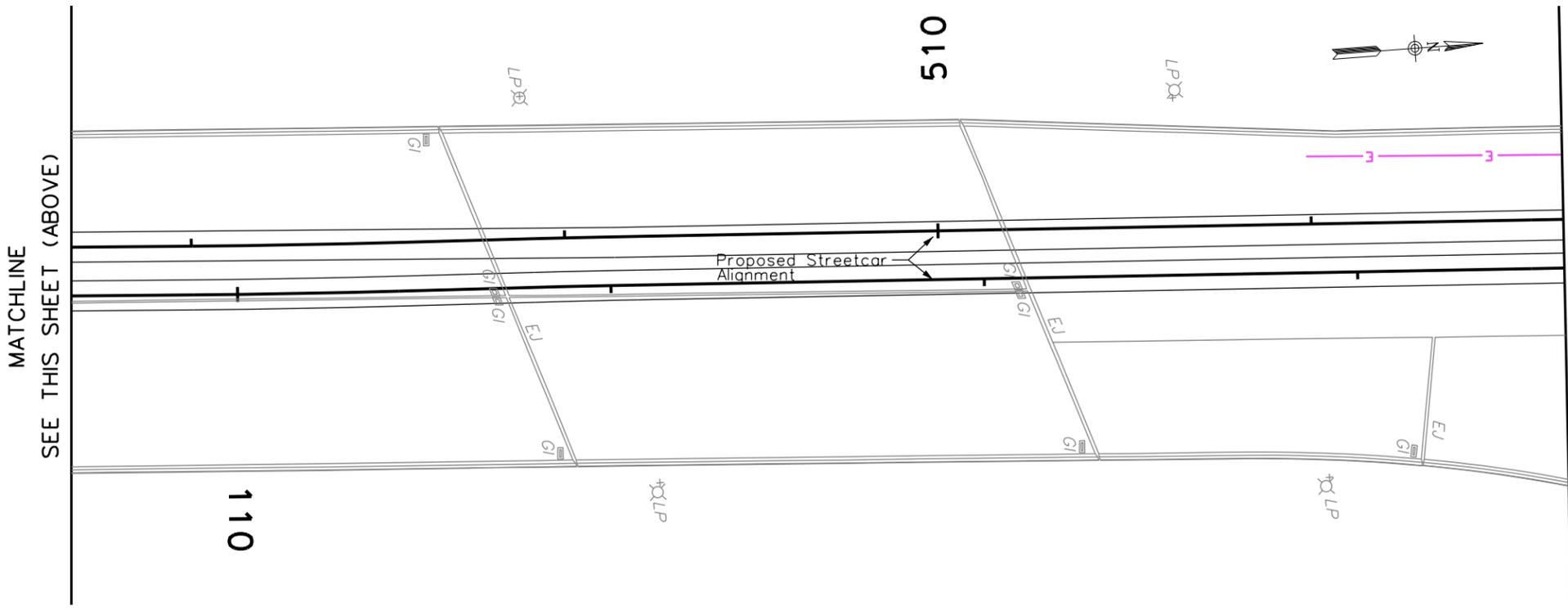
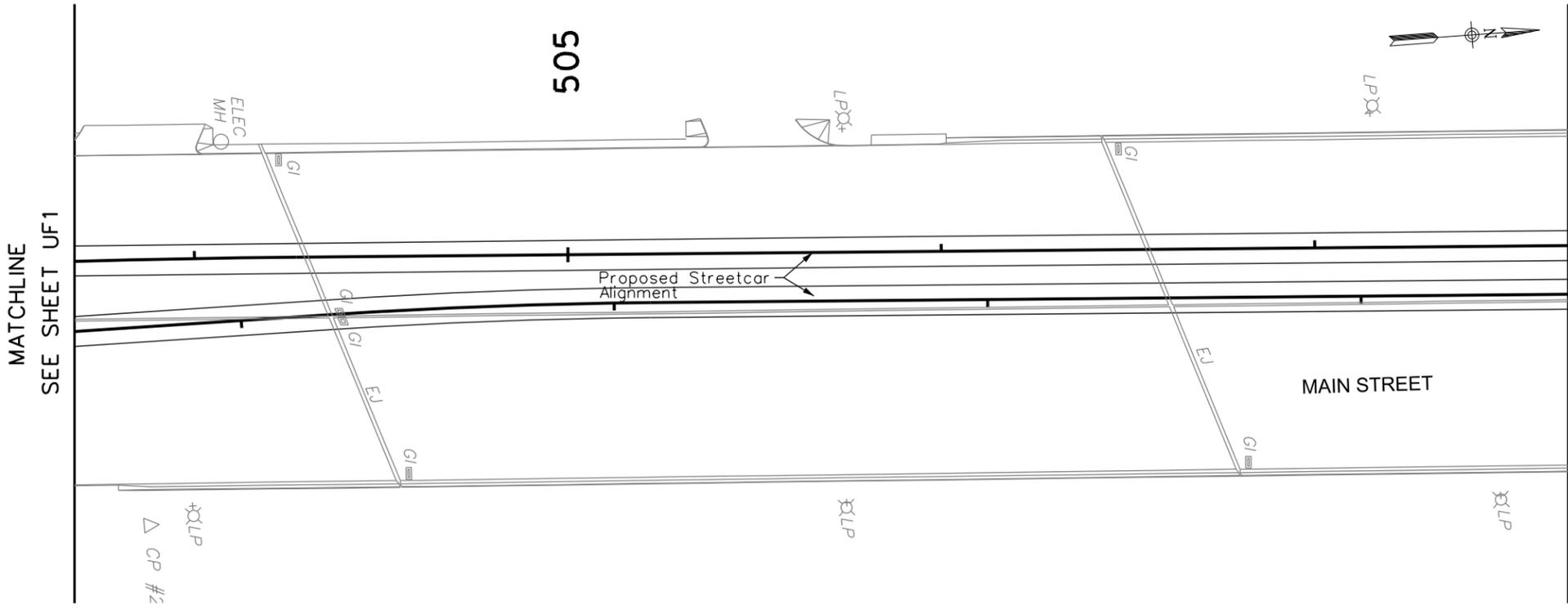
MATCHLINE  
SEE THIS SHEET (ABOVE)

Δ CP #1

500

105

SHEET NO.  UF1	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED					KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Franchise Utilities	SHEET NO.  UF1
				DRAWN BY	DIV. ENGINEER						
				CHECKED BY							
				APPROVED BY							
SHEET FILE: UF_01.dgn		PLOT DATE: 8/3/2012 9:30:20 AM		BY: Design		PLOT DATE: 8/3/2012 9:30:20 AM BY: Design					



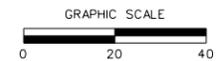
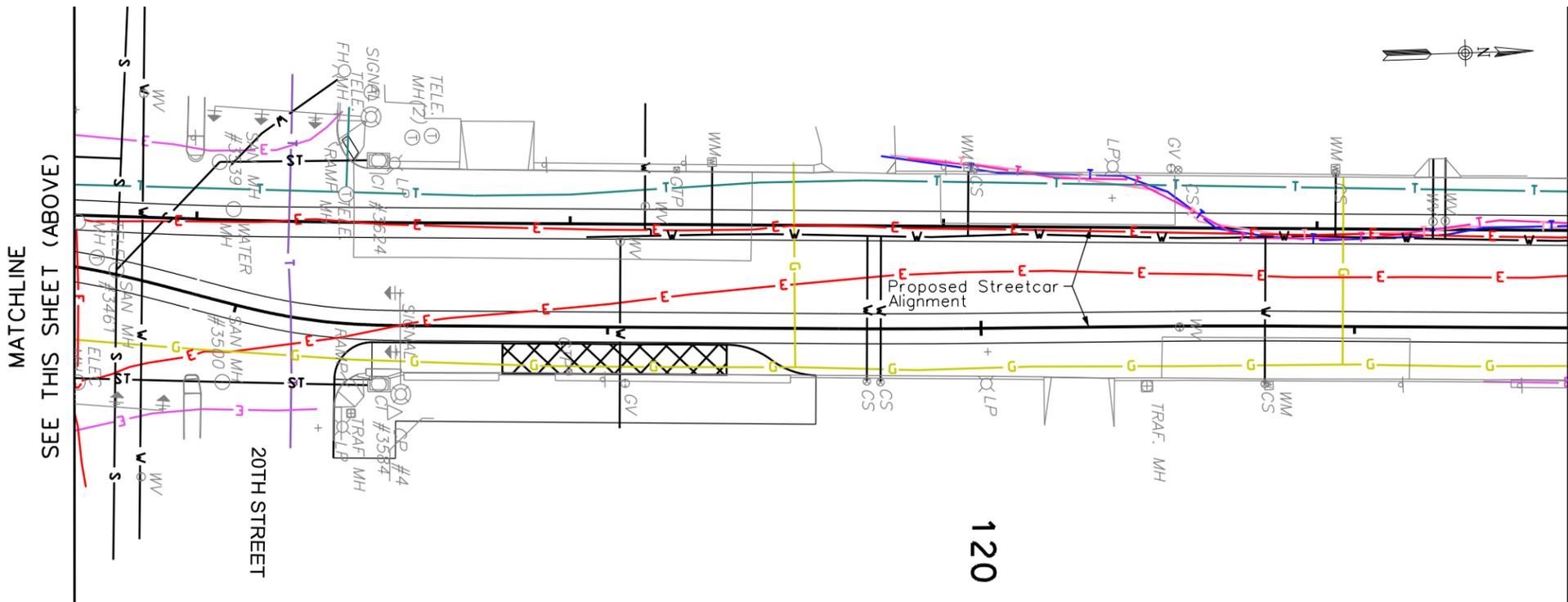
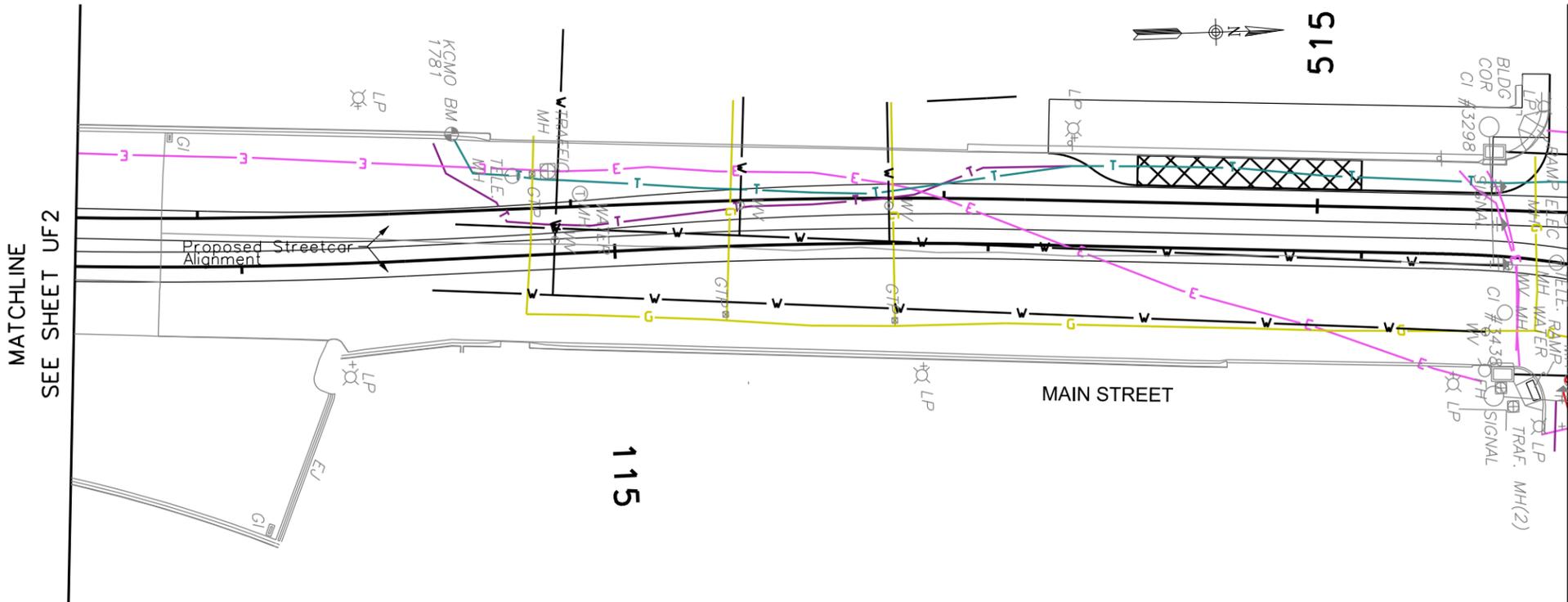
**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
EH	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UF2						Utility Composite Drawings	UF2
						Franchise Utilities	
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PLOT DATE: 8/2/2012 4:48:54 PM BY: Design

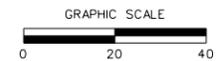
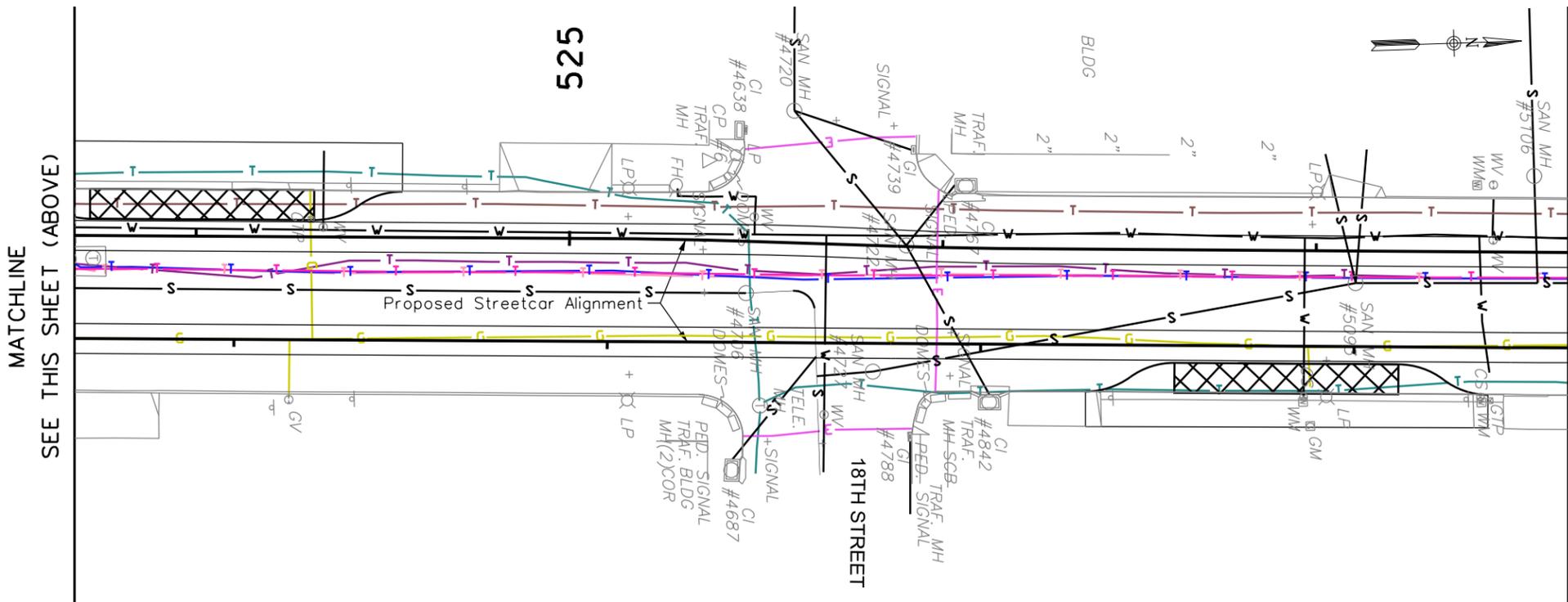
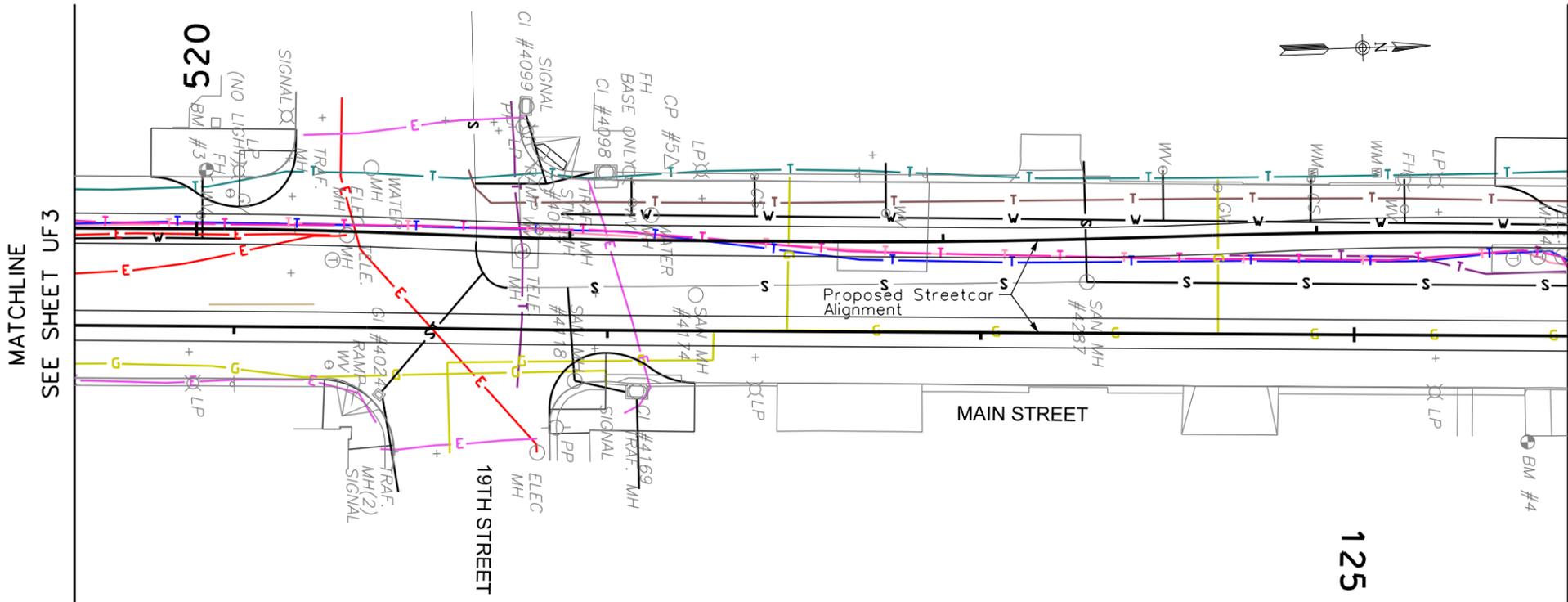


**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  Utility Composite Drawings Franchise Utilities	SHEET NO.
UF3		DRAWN BY	DIV. ENGINEER					UF3
		CHECKED BY						
		APPROVED BY						
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PLOT DATE: 8/1/2012 5:19:29 PM BY: Design								

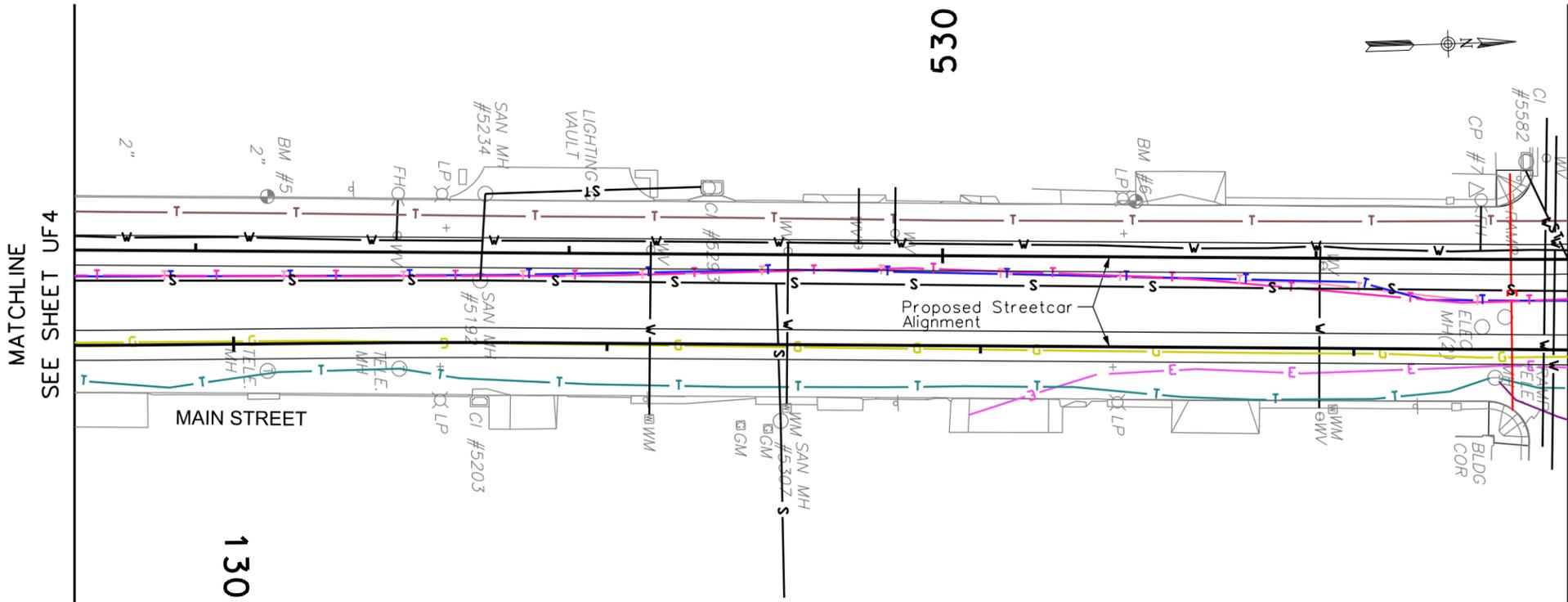


**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

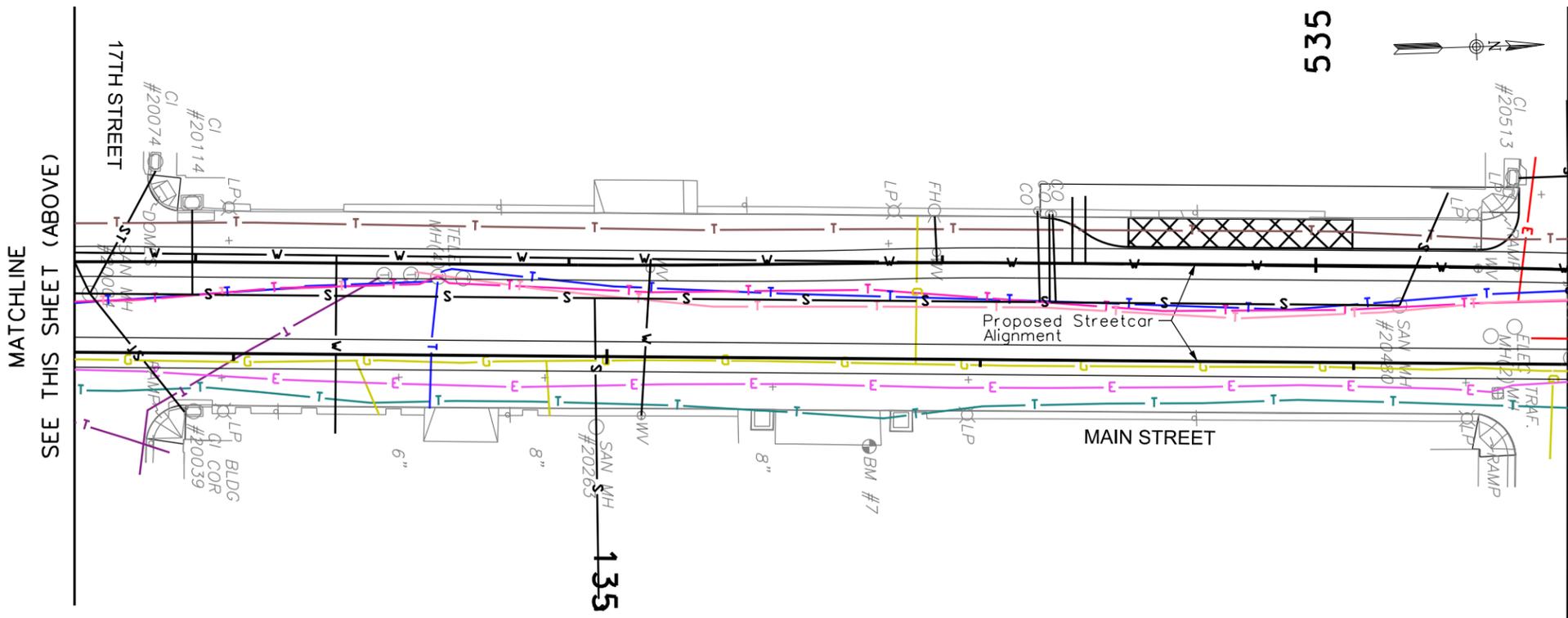
- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Franchise Utilities	SHEET NO.
UF 4		DRAWN BY	DIV. ENGINEER					UF 4
		CHECKED BY						
		APPROVED BY						
SHEET FILE: UF_04.dgn		PLOT DATE: 8/2/2012 4:49:34 PM		BY: Design				



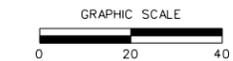
MATCHLINE  
SEE SHEET UF4

MATCHLINE  
SEE THIS SHEET (BELOW)



MATCHLINE  
SEE THIS SHEET (ABOVE)

MATCHLINE  
SEE SHEET UF6

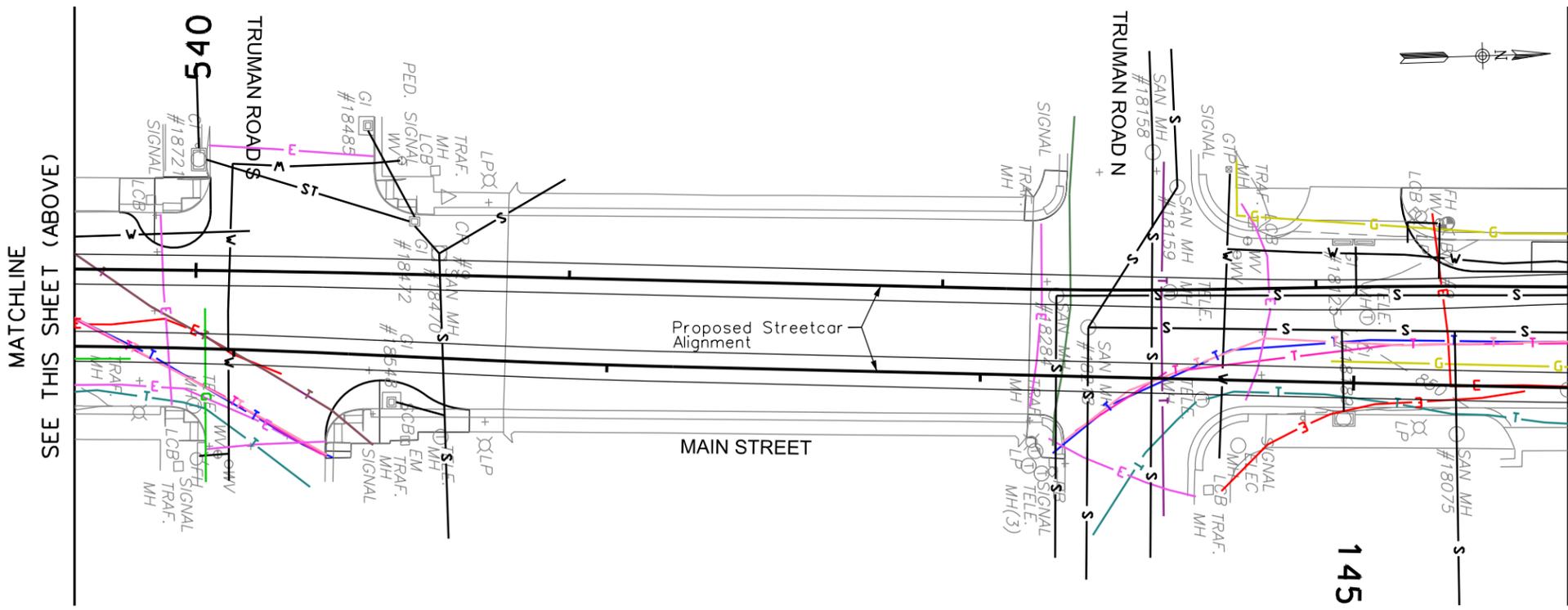
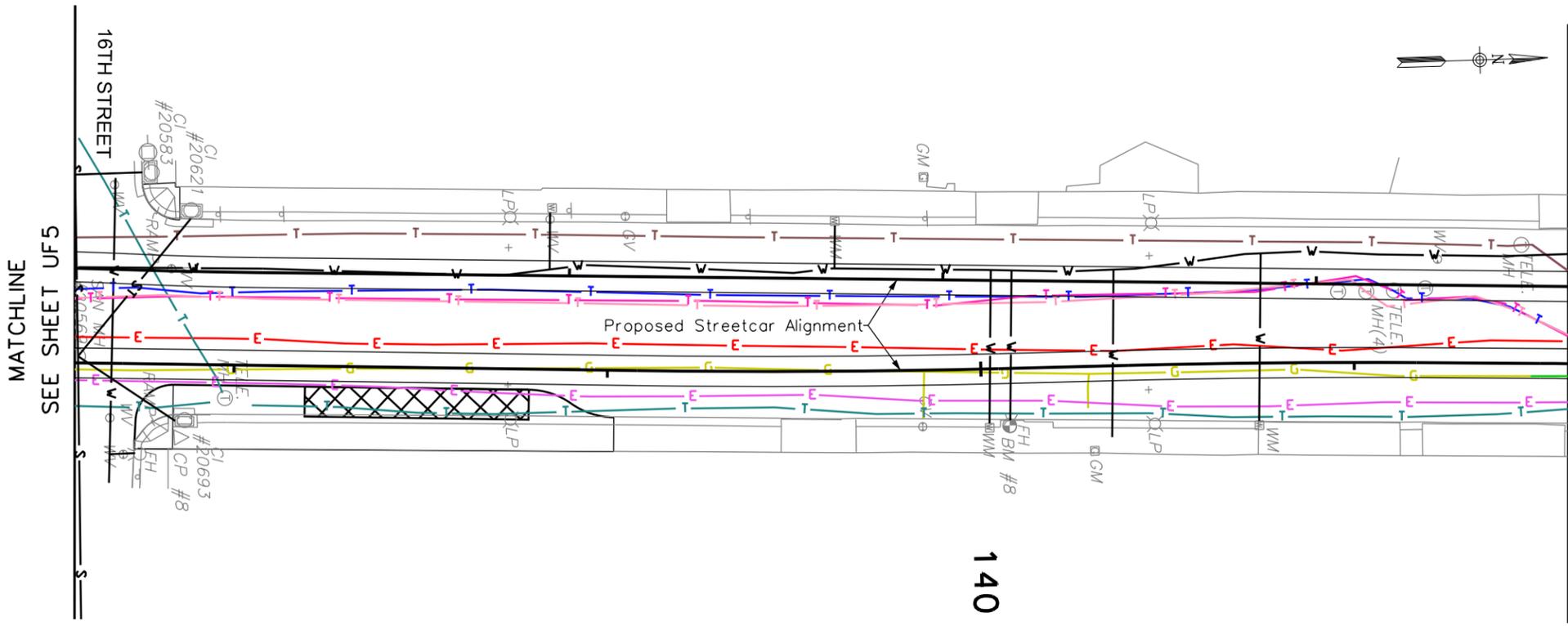


**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:
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  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UF5		DRAWN BY DIV. ENGINEER				Utility Composite Drawings	UF5
		CHECKED BY				Franchise Utilities	
		APPROVED BY					
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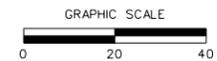


MATCHLINE  
SEE SHEET UF5

MATCHLINE  
SEE THIS SHEET (BELOW)

MATCHLINE  
SEE THIS SHEET (ABOVE)

MATCHLINE  
SEE SHEET UF7

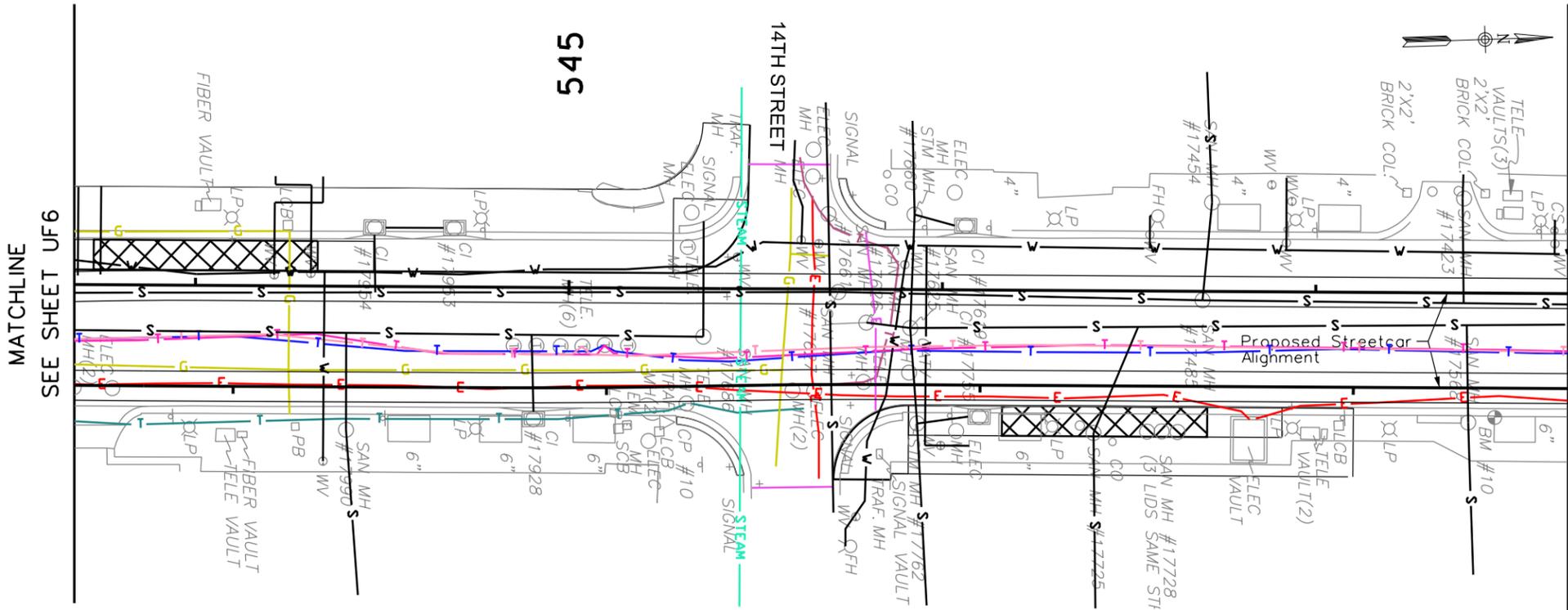


**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

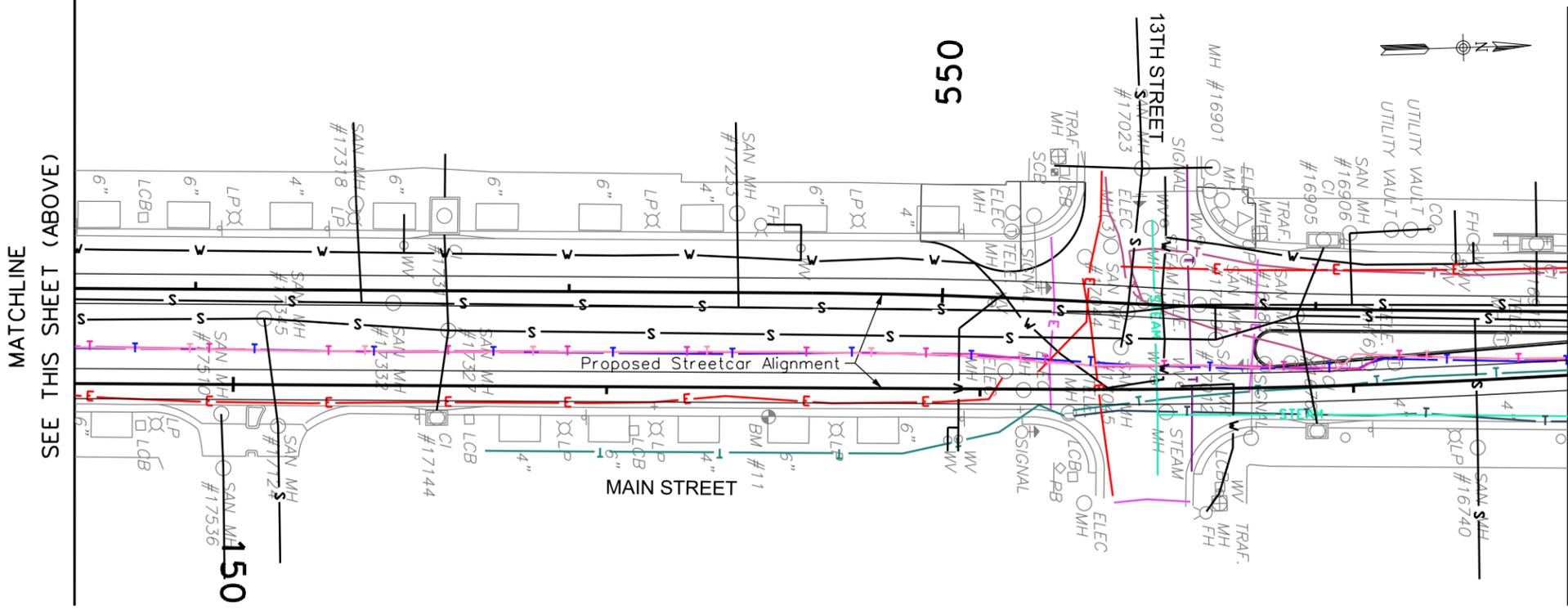
- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UF6		DRAWN BY	DIV. ENGINEER				Utility Composite Drawings	UF6
		CHECKED BY					Franchise Utilities	
		APPROVED BY						
SHEET FILE: Sheet06.dgn		PLOT DATE: 8/1/2012 5:21:00 PM		BY: Design				



MATCHLINE  
SEE SHEET UF6

MATCHLINE  
SEE THIS SHEET (BELOW)



MATCHLINE  
SEE THIS SHEET (ABOVE)

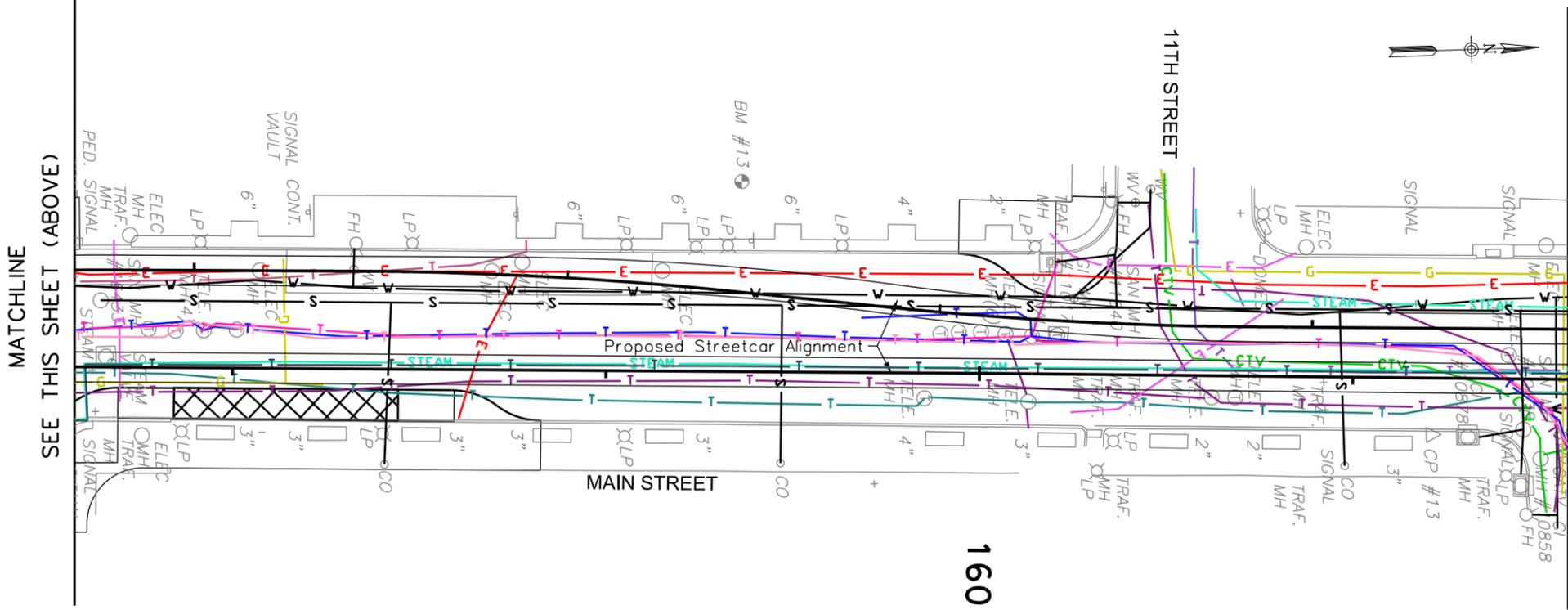
MATCHLINE  
SEE SHEET UF8

**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
O	KCP&L (OVERHEAD ELECTRIC)
S	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
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SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  Utility Composite Drawings Franchise Utilities	SHEET NO.
UF7		DRAWN BY	DIV. ENGINEER					UF7
		CHECKED BY						
		APPROVED BY						
SHEET FILE: Sheet07.dgn		PLOT DATE: 8/1/2012 5:21:33 PM		PLOT DATE: 8/1/2012 5:21:33 PM		BY: Design		

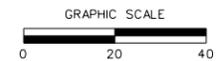


MATCHLINE  
SEE SHEET UF7

MATCHLINE  
SEE THIS SHEET (BELOW)

MATCHLINE  
SEE THIS SHEET (ABOVE)

MATCHLINE  
SEE SHEET UF9

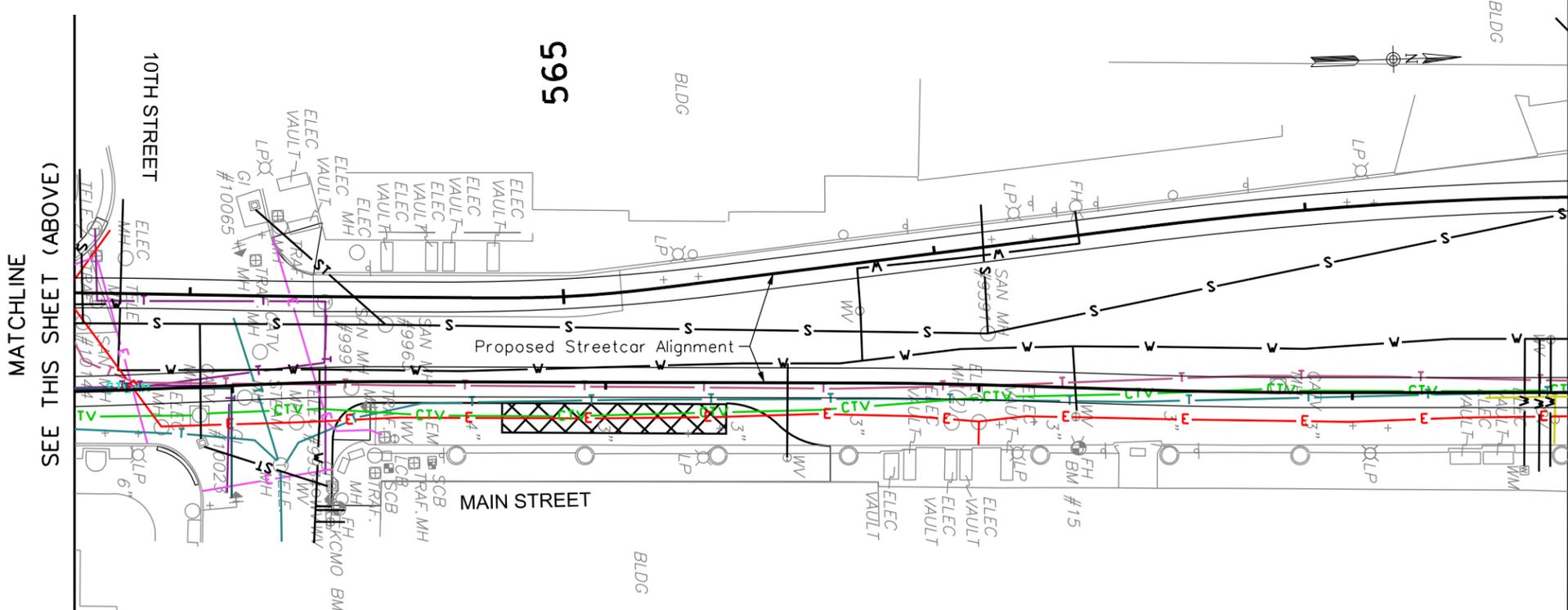
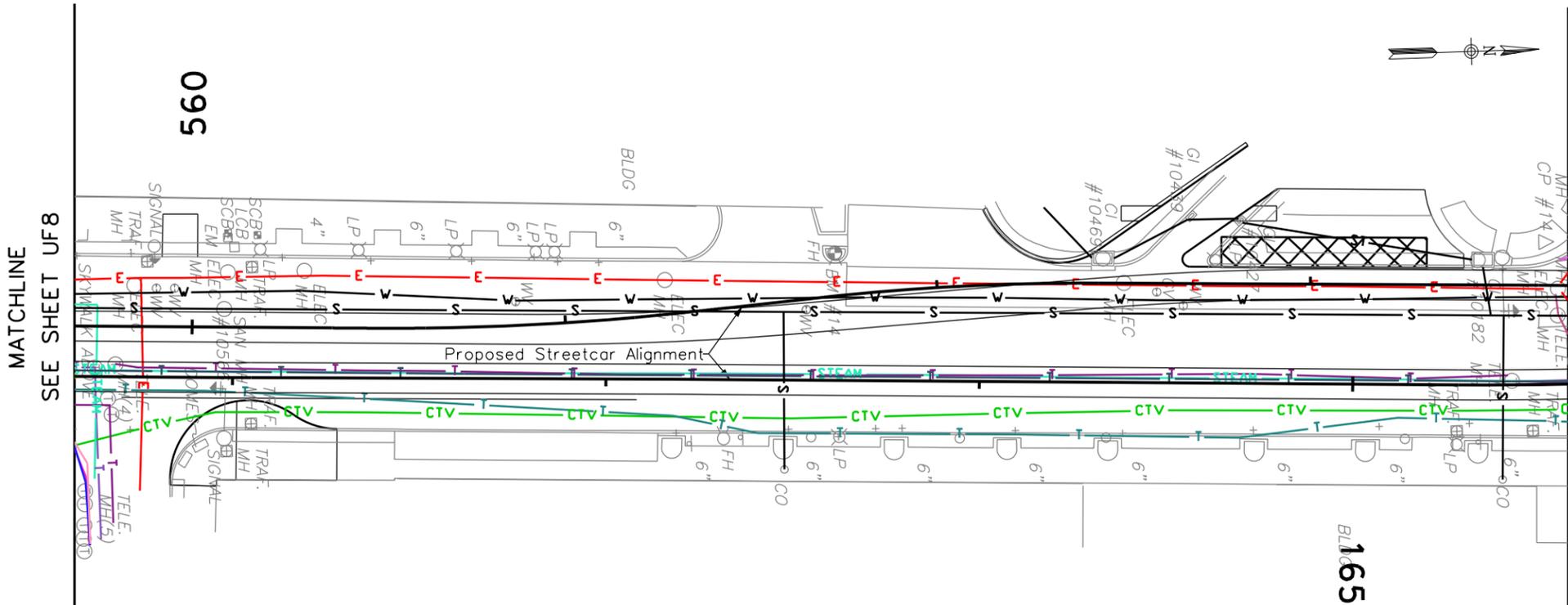


**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:
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  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED	 <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Franchise Utilities	SHEET NO.
UF8		DRAWN BY DIV. ENGINEER			UF8	
		CHECKED BY				
		APPROVED BY				
SHEET FILE: Sheet08.dgn		PLOT DATE: 8/1/2012 5:21:53 PM				
PLOT DATE: 8/1/2012 5:21:53 PM BY: Design						

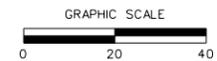
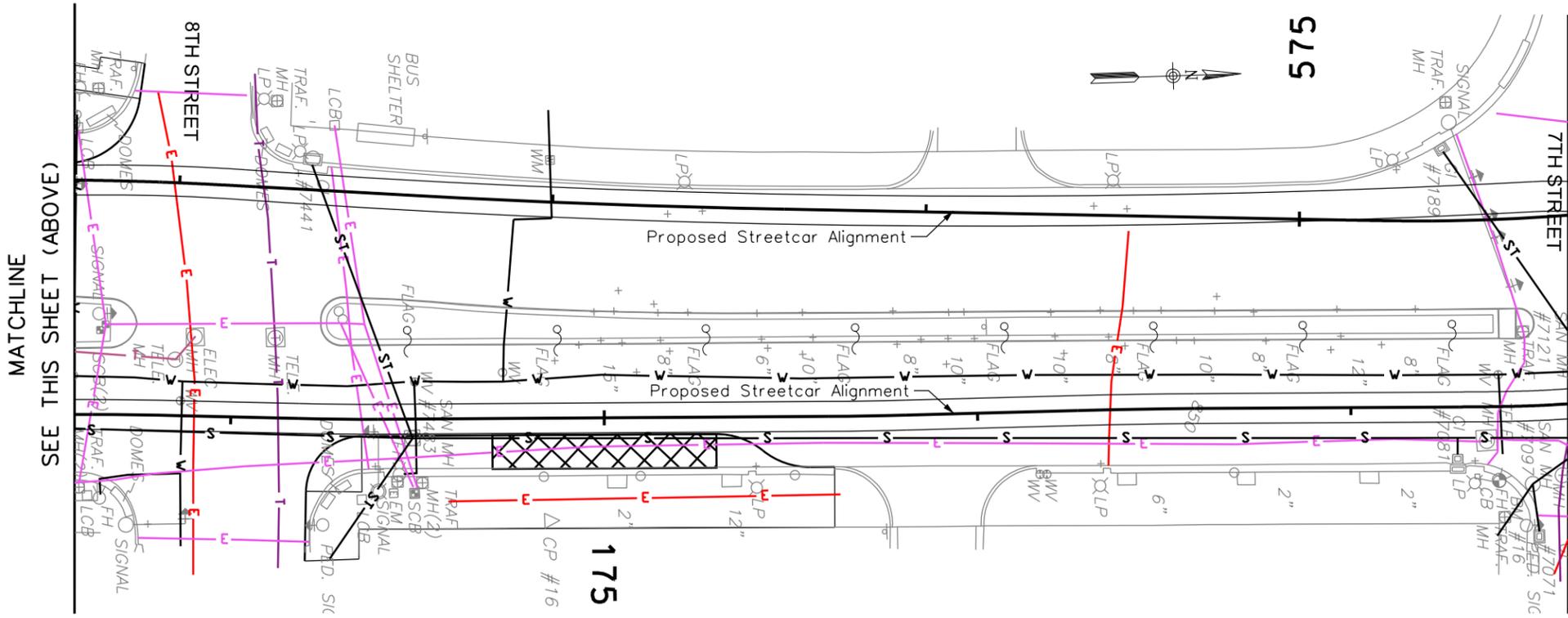
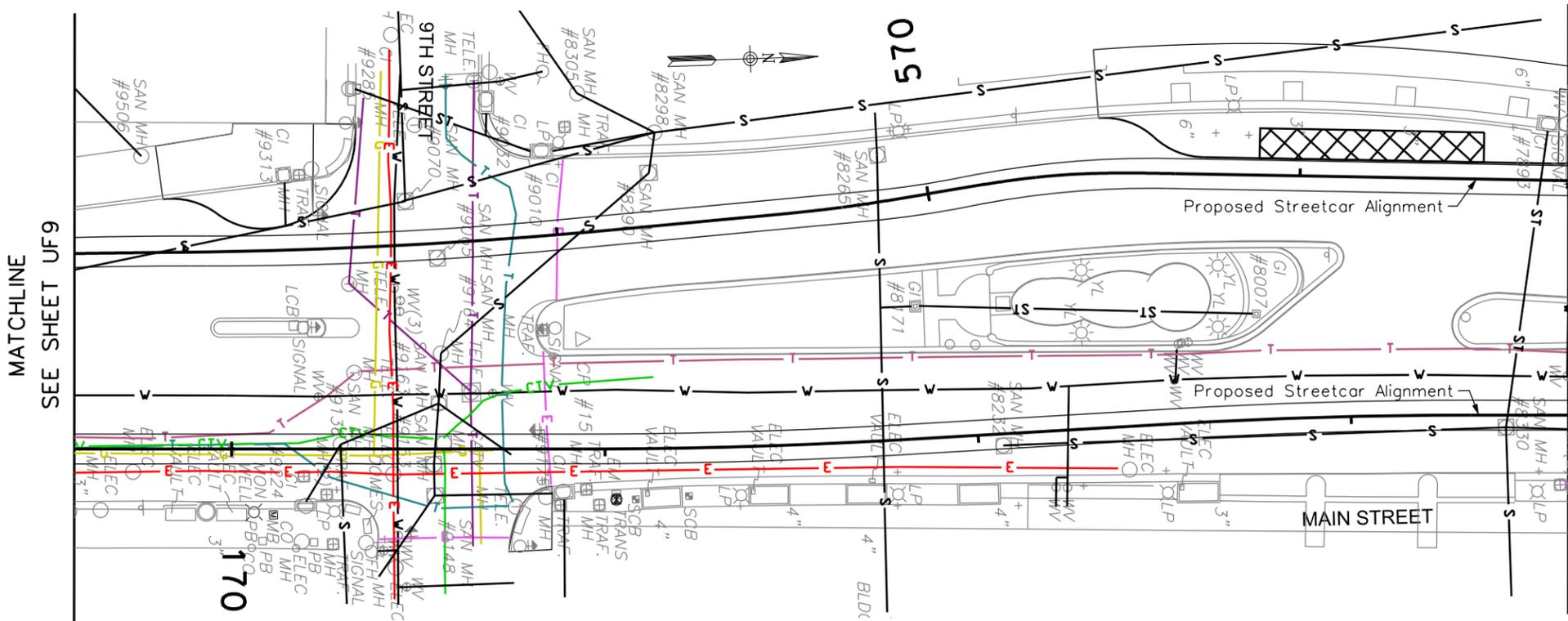


**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:**
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	  <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Franchise Utilities	SHEET NO.
UF9		DRAWN BY	DIV. ENGINEER			UF9	
		CHECKED BY					
		APPROVED BY					
SHEET FILE: Sheet09.dgn		PLOT DATE: 8/1/2012 5:22:21 PM				PLOT DATE: 8/1/2012 5:22:21 PM BY: Design	



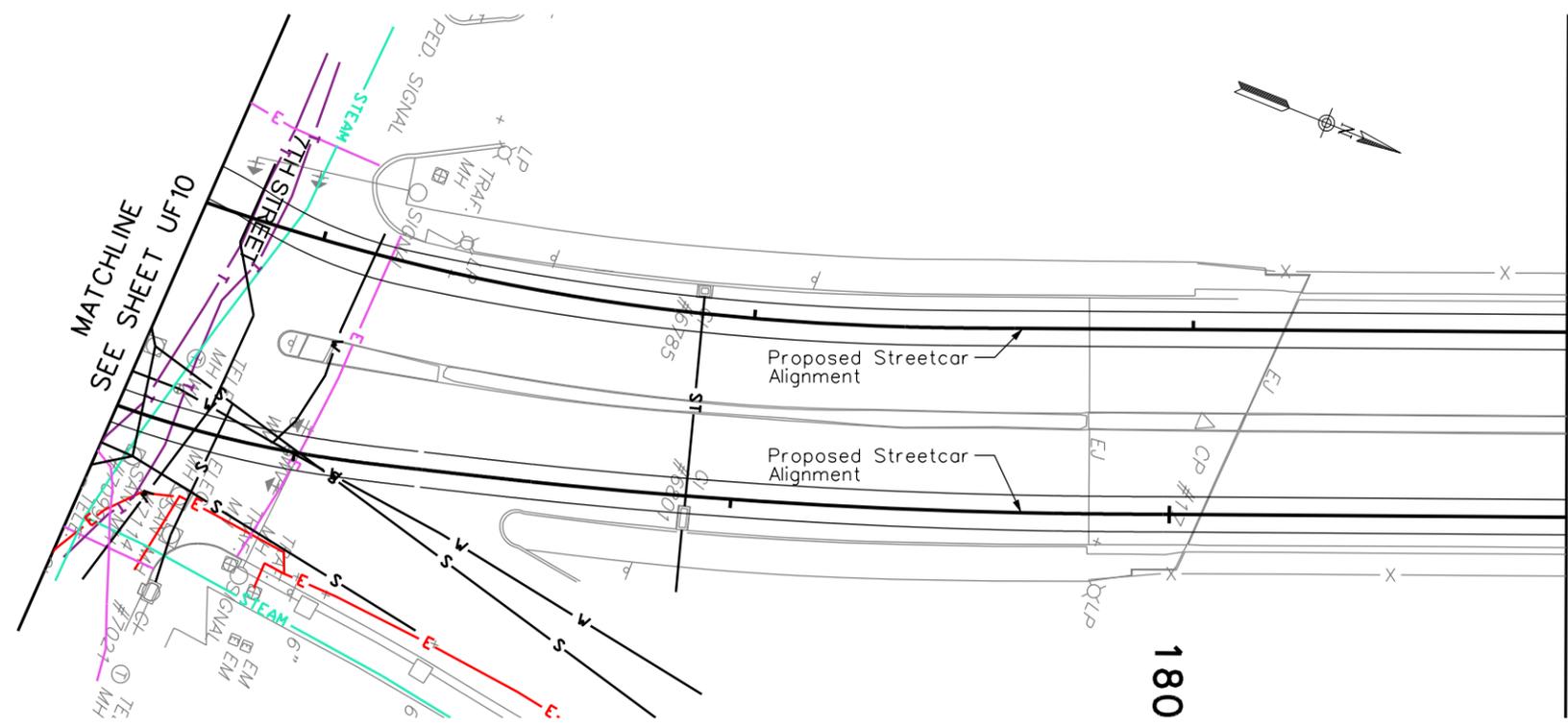
**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

- GENERAL NOTES:**
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR  Utility Composite Drawings Franchise Utilities	SHEET NO.	
UF 10		DRAWN BY DIV. ENGINEER						UF 10
		CHECKED BY						
		APPROVED BY						
SHEET FILE: Sheet10.dgn		PLOT DATE: 8/1/2012 5:22:55 PM						

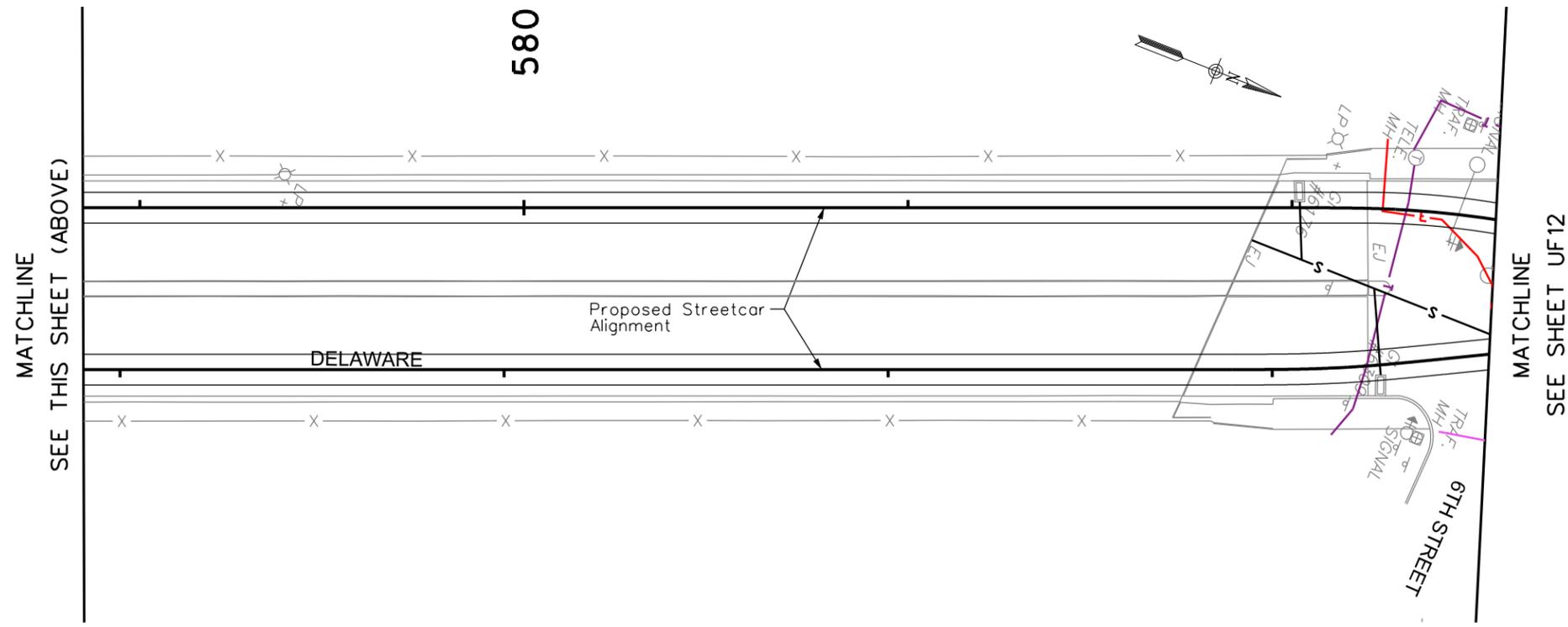
PLOT DATE: 8/1/2012 5:22:55 PM BY: Design



MATCHLINE  
SEE THIS SHEET (BELOW)

**LEGEND**

- G — MISSOURI GAS ENERGY (GAS)
- E — KCP&L (UNDERGROUND ELECTRIC)
- OHU — KCP&L (OVERHEAD ELECTRIC)
- E — SIGNALS (UNDERGROUND ELECTRIC)
- STEAM — VEOLIA ENERGY (STEAM)
- CTV — TIME WARNER CABLE (CABLE TV)
- T — TIME WARNER CABLE (TELECOM)
- T — ACSI/TW TELECOM (TELECOM)
- T — AT&T (TELECOM)
- T — KC SCOUT (TELECOM)
- T — LEVEL 3 (TELECOM)
- T — LIGHTCORE (TELECOM)
- T — MCI/VERIZON (TELECOM)
- T — QWEST (TELECOM)
- T — SPRINT (TELECOM)
- T — ZAYO (TELECOM)

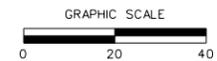


MATCHLINE  
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MATCHLINE  
SEE SHEET UF12

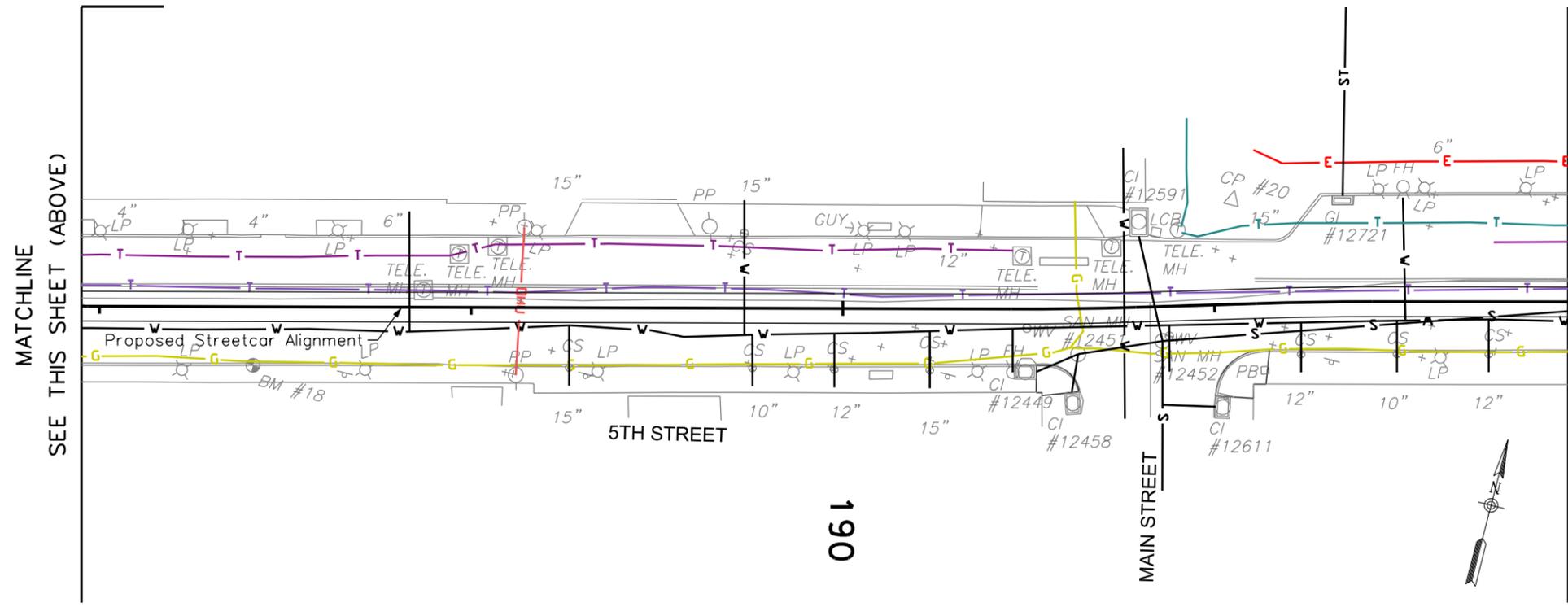
- GENERAL NOTES:
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	  <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	  <small>HDR Engineering, Inc.</small>	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UF 11		DRAWN BY	DIV. ENGINEER			Utility Composite Drawings	UF 11
		CHECKED BY				Franchise Utilities	
		APPROVED BY					
SHEET FILE: Sheet11.dgn		PLOT DATE: 8/1/2012 5:23:21 PM					
PLOT DATE: 8/1/2012 5:23:21 PM BY: Design							



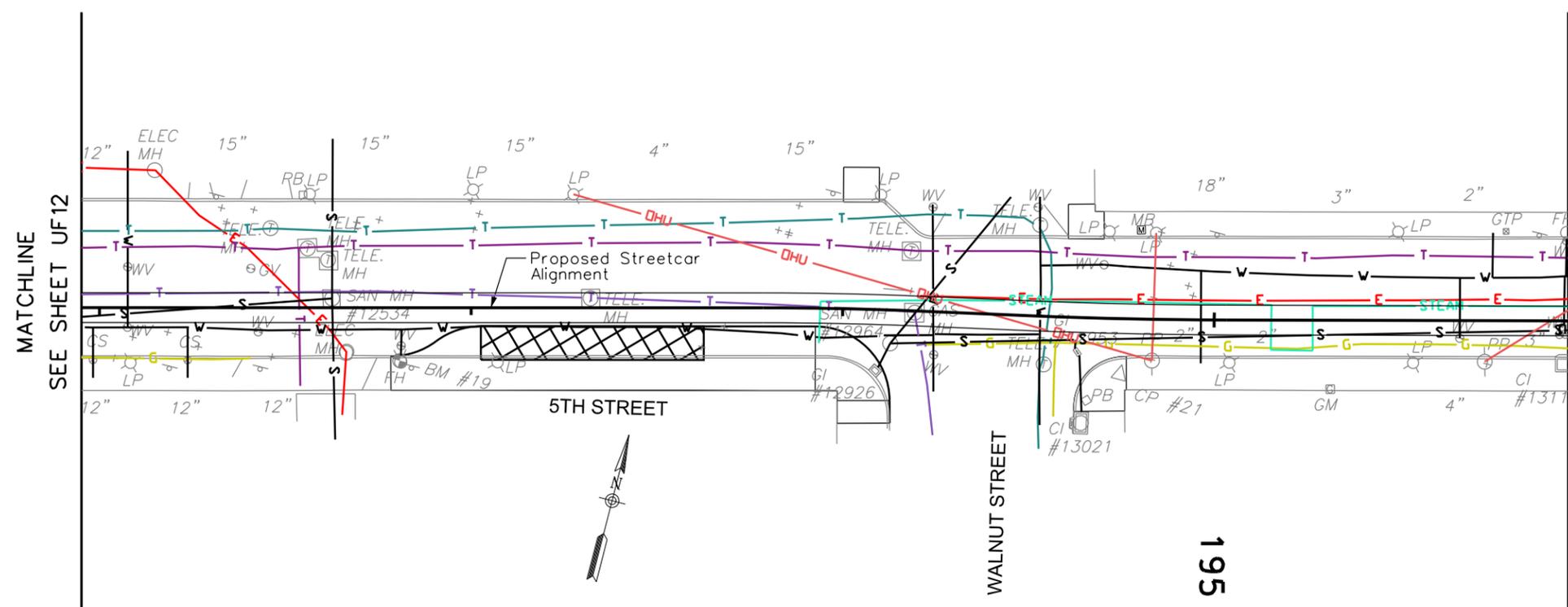
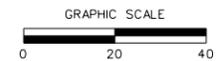
**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)



- GENERAL NOTES:**
- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFORMATION ONLY
  - 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

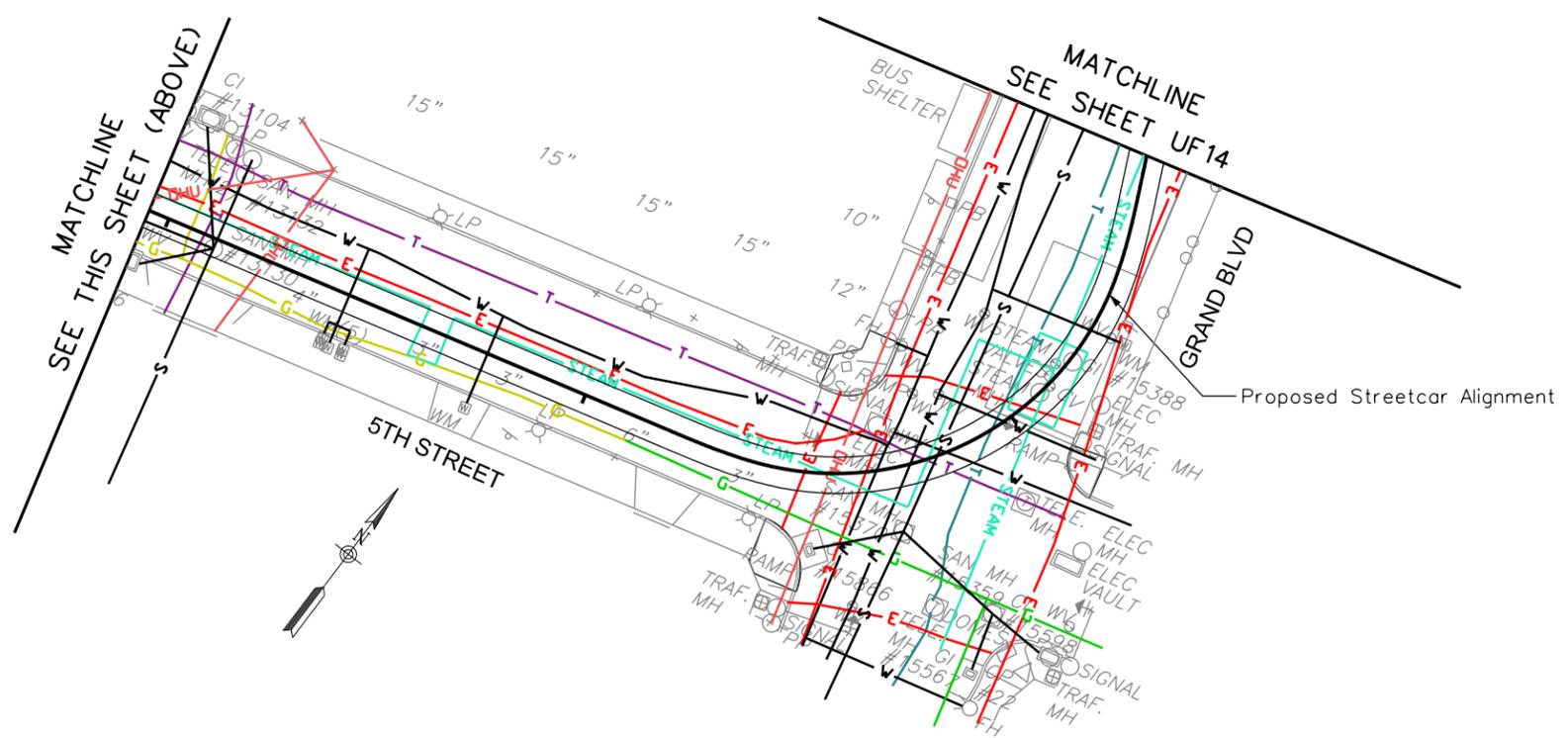
SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED	 <b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UF12		DRAWN BY	DIV. ENGINEER			Utility Composite Drawings	UF12
		CHECKED BY				From the Utility	
		APPROVED BY					
SHEET FILE: Sheet12.dgn		PLOT DATE: 8/1/2012 5:23:40 PM					
PLOT DATE: 8/1/2012 5:23:40 PM BY: Design							



MATCHLINE  
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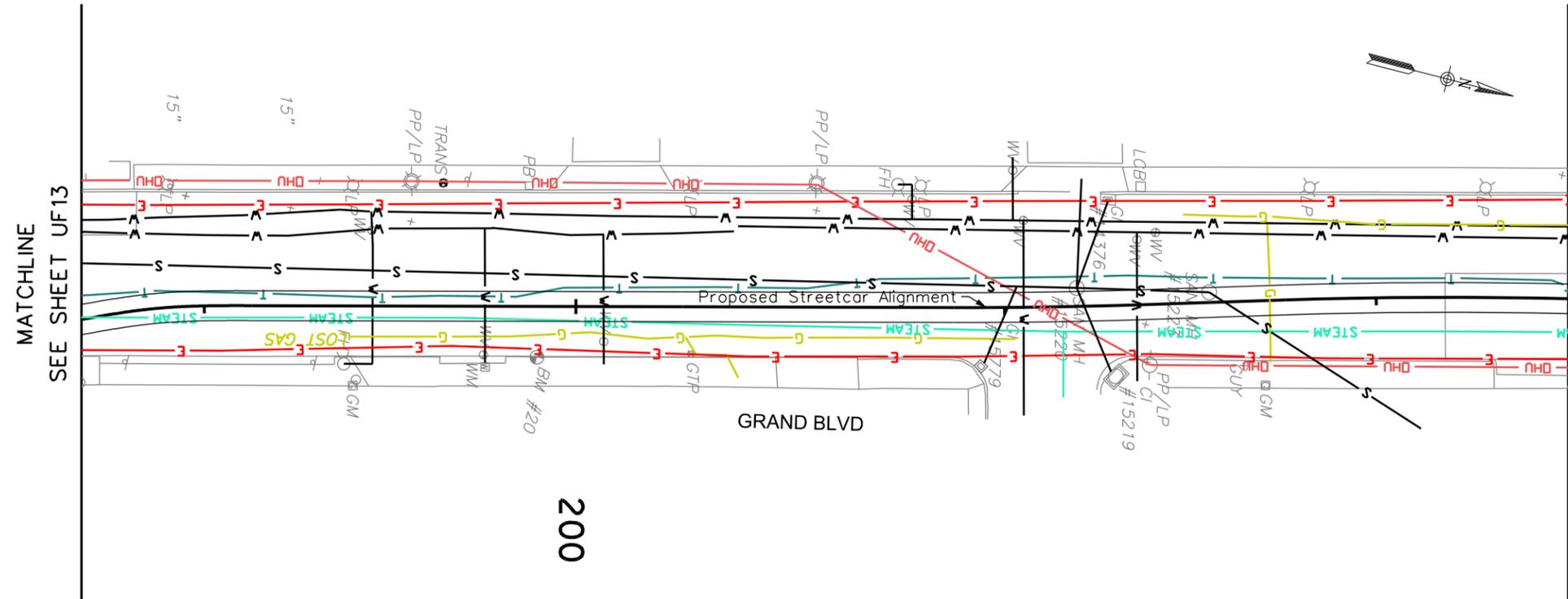
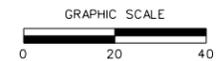
**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
S	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)



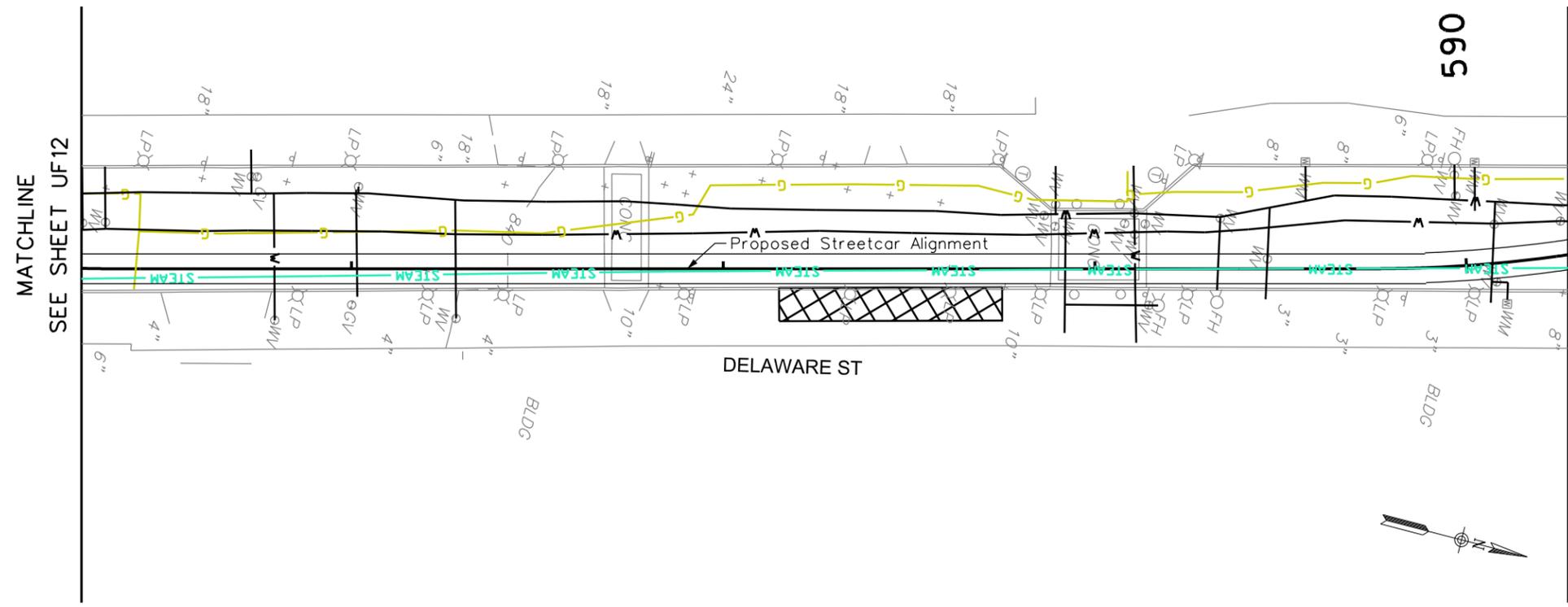
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SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED	 <b>ADVANCED ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>	 	KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UF13		DRAWN BY DIV. ENGINEER			Utility Composite Drawings	UF13
		CHECKED BY			Franchise Utilities	
		APPROVED BY				
SHEET FILE: Sheet13.dgn		PLOT DATE: 8/1/2012 5:24:07 PM				
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**LEGEND**

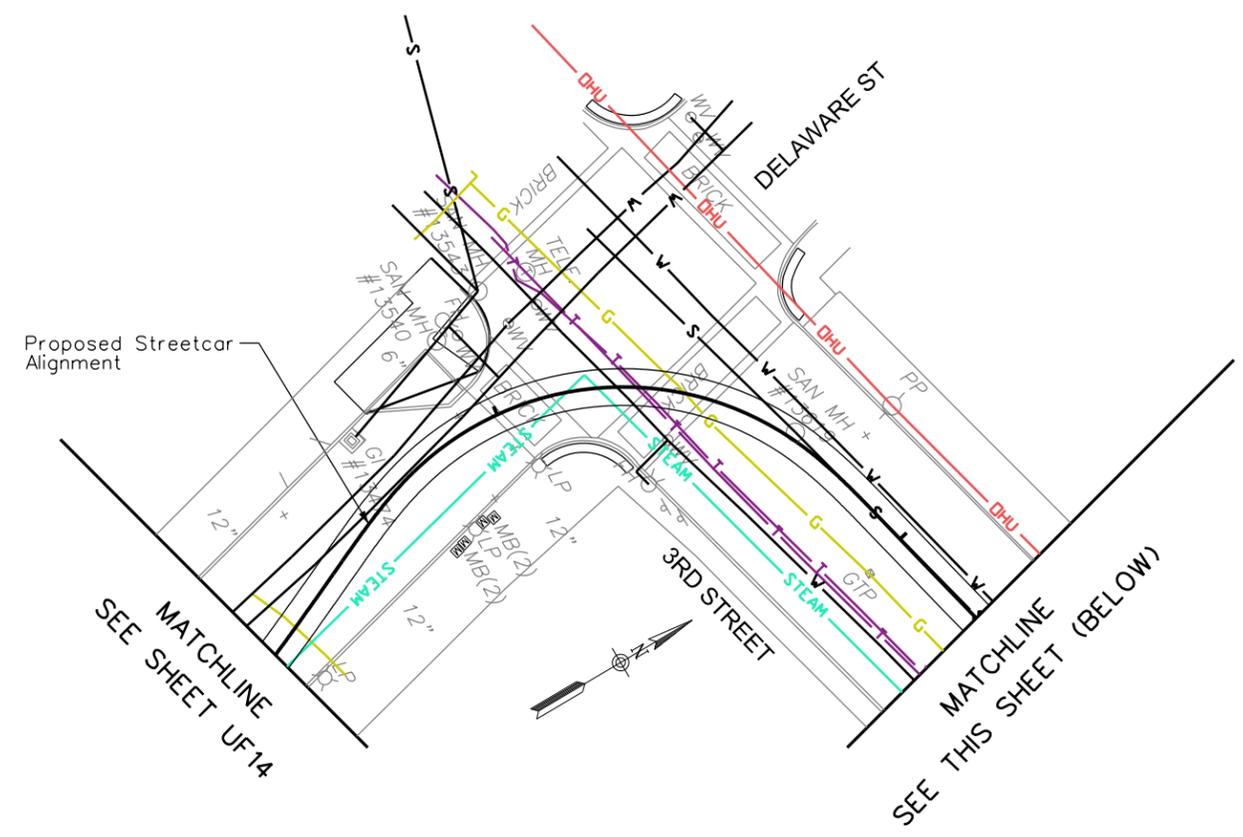
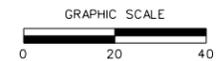
G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
DHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)



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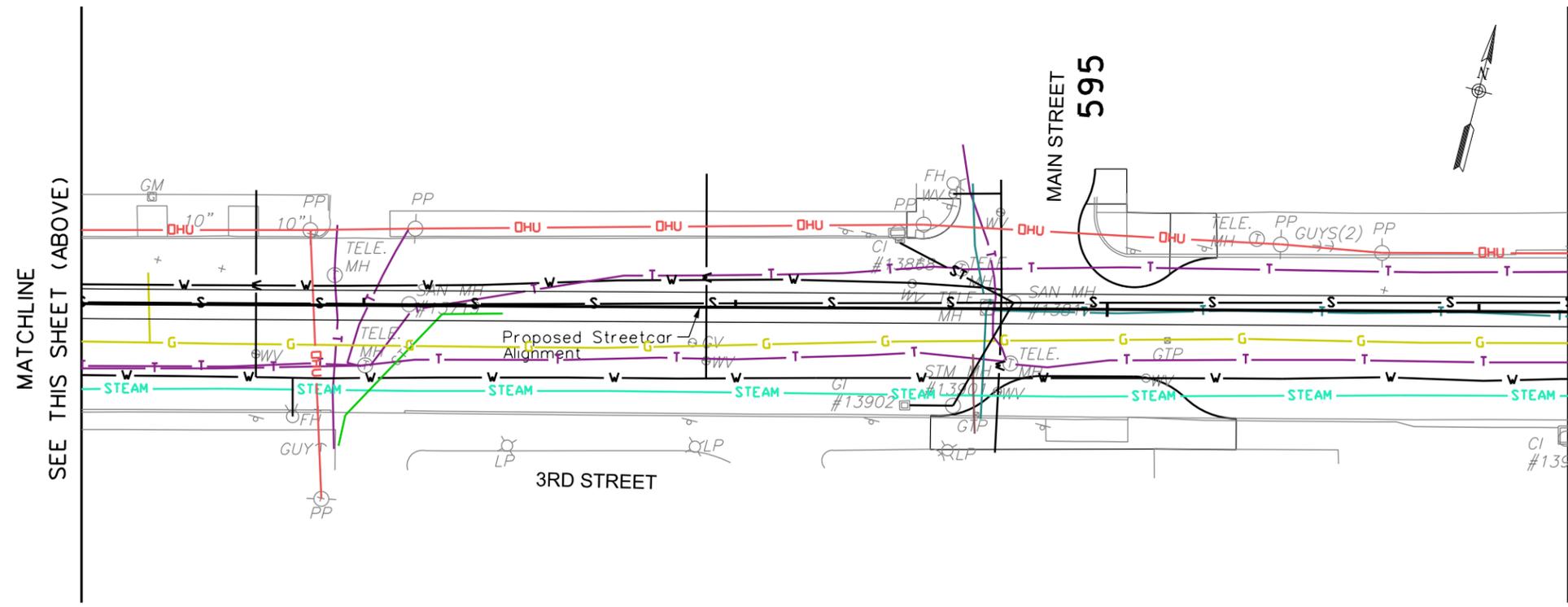
SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY	DATE APPROVED		<p><b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b></p> <p><b>NOT FOR CONSTRUCTION</b></p>		KANSAS CITY DOWNTOWN STREETCAR	SHEET NO.
UF14		DRAWN BY	DIV. ENGINEER				Utility Composite Drawings	UF14
		CHECKED BY					Franchise Utilities	
		APPROVED BY						
SHEET FILE: Sheet14.dgn		PLOT DATE: 8/1/2012 5:52:32 PM						

PLOT DATE: 8/1/2012 5:52:32 PM BY: Design



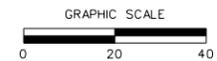
**LEGEND**

G	MISSOURI GAS ENERGY (GAS)
E	KCP&L (UNDERGROUND ELECTRIC)
OHU	KCP&L (OVERHEAD ELECTRIC)
E	SIGNALS (UNDERGROUND ELECTRIC)
STEAM	VEOLIA ENERGY (STEAM)
CTV	TIME WARNER CABLE (CABLE TV)
T	TIME WARNER CABLE (TELECOM)
T	ACSI/TW TELECOM (TELECOM)
T	AT&T (TELECOM)
T	KC SCOUT (TELECOM)
T	LEVEL 3 (TELECOM)
T	LIGHTCORE (TELECOM)
T	MCI/VERIZON (TELECOM)
T	QWEST (TELECOM)
T	SPRINT (TELECOM)
T	ZAYO (TELECOM)

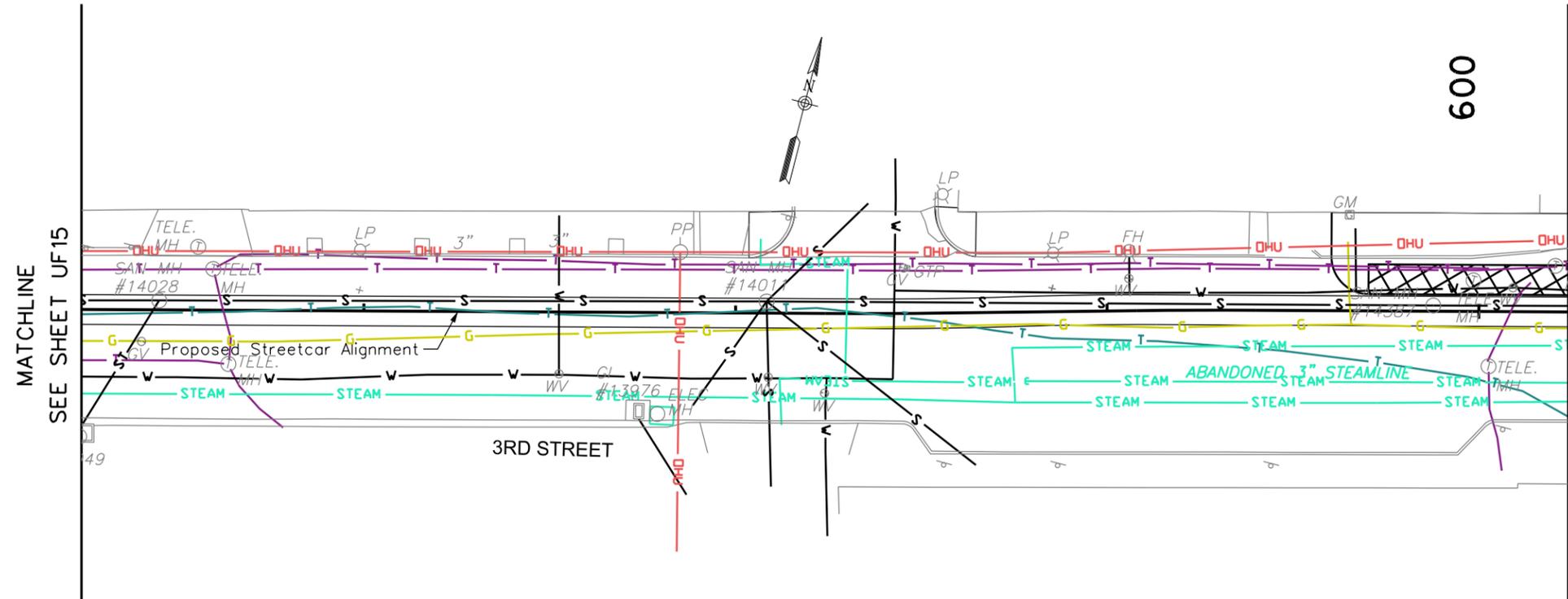


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SHEET NO.	ISSUE DATE DESCRIPTION	DESIGNED BY DATE APPROVED		<b>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</b> <b>NOT FOR CONSTRUCTION</b>		KANSAS CITY DOWNTOWN STREETCAR Utility Composite Drawings Franchise Utilities	SHEET NO.	
UF 15		DRAWN BY DIV. ENGINEER						UF 15
		CHECKED BY						
		APPROVED BY						
SHEET FILE: Sheet15.dgn		PLOT DATE: 8/1/2012 5:51:29 PM						
PLOT DATE: 8/1/2012 5:51:29 PM BY: Design								



600

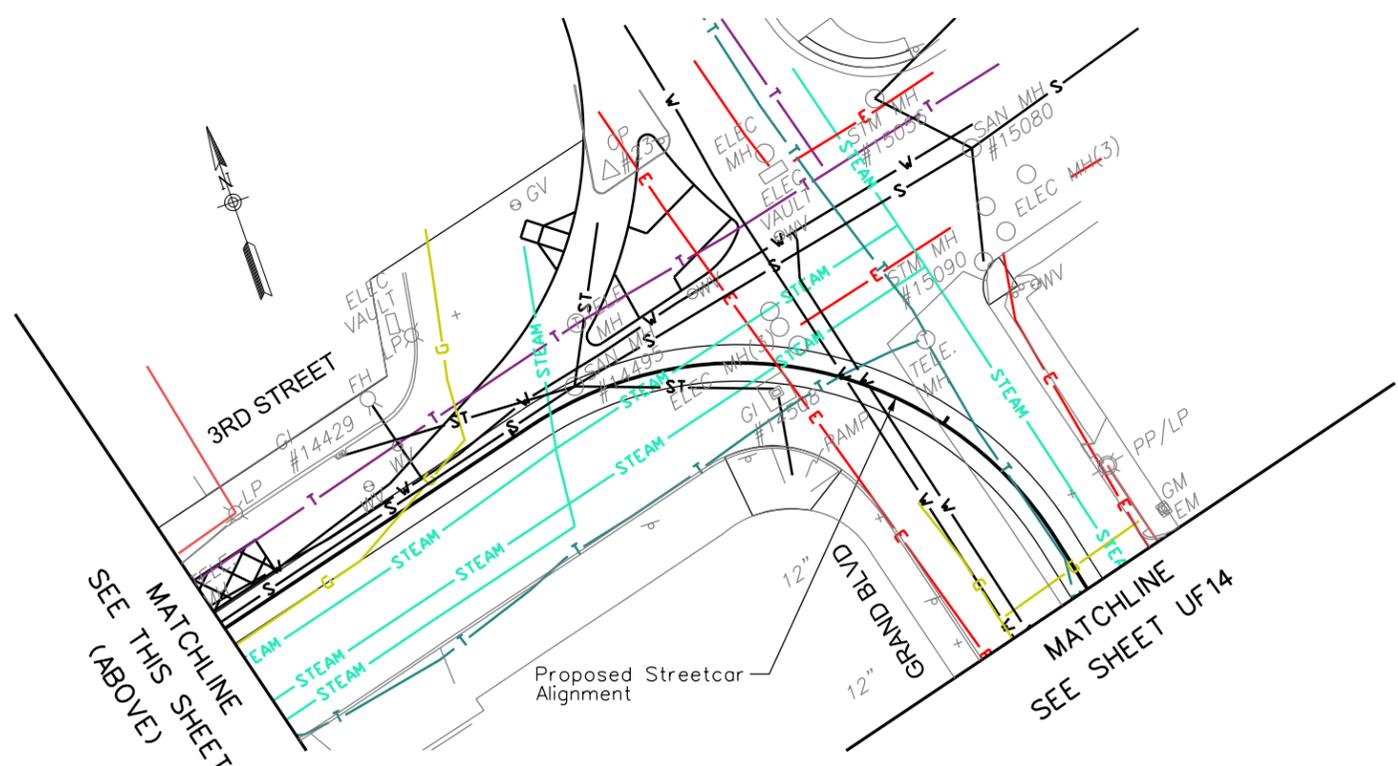


MATCHLINE  
SEE SHEET UF15

MATCHLINE  
SEE THIS SHEET (BELOW)

LEGEND

- G MISSOURI GAS ENERGY (GAS)
- E KCP&L (UNDERGROUND ELECTRIC)
- OHU KCP&L (OVERHEAD ELECTRIC)
- E SIGNALS (UNDERGROUND ELECTRIC)
- STEAM VEOLIA ENERGY (STEAM)
- CTV TIME WARNER CABLE (CABLE TV)
- T TIME WARNER CABLE (TELECOM)
- T ACSI/TW TELECOM (TELECOM)
- T AT&T (TELECOM)
- T KC SCOUT (TELECOM)
- T LEVEL 3 (TELECOM)
- T LIGHTCORE (TELECOM)
- T MCI/VERIZON (TELECOM)
- T QWEST (TELECOM)
- T SPRINT (TELECOM)
- T ZAYO (TELECOM)



MATCHLINE  
SEE THIS SHEET  
(ABOVE)

MATCHLINE  
SEE SHEET UF14

GENERAL NOTES:

- 1) UTILITY COMPOSITE DRAWINGS A WORK IN PROGRESS AND FOR INFOMATION ONLY
- 2) ALIGNMENT SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE

SHEET NO.  UF 16	ISSUE	DATE	DESCRIPTION	DESIGNED BY	DATE APPROVED		<p>ADVANCED CONCEPTUAL ENGINEERING SUBMITTAL</p> <p>NOT FOR CONSTRUCTION</p>	 	<p>KANSAS CITY DOWNTOWN STREETCAR</p> <p>Utility Composite Drawings</p> <p>Franchise Utilities</p>	SHEET NO.  UF 16
				DRAWN BY	DIV. ENGINEER					
				CHECKED BY						
				APPROVED BY						
SHEET FILE: Sheet16.dgn		PLOT DATE: 8/1/2012 5:50:39 PM								