

APPROVED FOR CONSTRUCTION

Las Vegas Valley Water District Engineering Services Manager  
 Date: \_\_\_\_\_ Project No. XXXXXX ESN 018

**STORM DRAIN CONSTRUCTION NOTES**

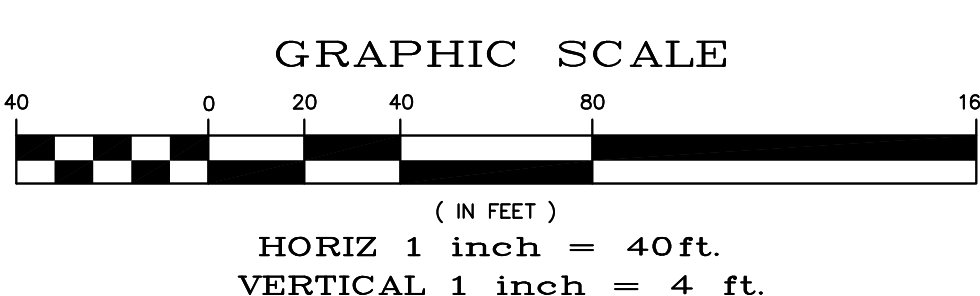
1. INSTALL 18" RCP SD PER TRENCH DETAIL 1 DRAWING SD19
2. INSTALL 24" RCP SD PER TRENCH DETAIL 1 DRAWING SD19
3. INSTALL 30" RCP SD PER TRENCH DETAIL 1 DRAWING SD19
4. INSTALL 36" RCP SD PER TRENCH DETAIL 1 DRAWING SD19
5. INSTALL 42" RCP SD PER TRENCH DETAIL 1 DRAWING SD19
6. INSTALL 48" RCP SD PER TRENCH DETAIL 1 DRAWING SD19
7. INSTALL 60" RCP SD PER TRENCH DETAIL 1 DRAWING SD19
8. INSTALL 45"x29" HE RCP SD PER TRENCH DETAIL 1 DRAWING SD19
9. INSTALL 53"x34" HE RCP SD PER TRENCH DETAIL 1 DRAWING SD19
10. INSTALL 5'x5' PRECAST RCB SD PER TRENCH DETAIL 2 DRAWING SD19
11. INSTALL 6'x5' PRECAST RCB SD PER TRENCH DETAIL 2 DRAWING SD19
12. INSTALL 7'x6' PRECAST RCB SD PER TRENCH DETAIL 2 DRAWING SD19
13. INSTALL 8'x6' PRECAST RCB SD PER TRENCH DETAIL 2 DRAWING SD19
14. INSTALL 10'x5' PRECAST RCB SD PER TRENCH DETAIL 2 DRAWING SD19
15. INSTALL PRECAST RCB TRANSITION
16. CONSTRUCT TYPE I SDMH PER USD #403.1
17. CONSTRUCT TYPE II SDMH PER USD #405.1
18. CONSTRUCT TYPE III SDMH PER USD #406.1
19. CONSTRUCT JUNCTION STRUCTURE PER DRAWING ST02
20. CONSTRUCT 36" ACCESS MANHOLE PER DETAIL 3 DRAWING SD19
21. CONSTRUCT 48" ACCESS MANHOLE PER DETAIL 4 DRAWING SD19
22. CONSTRUCT TYPE "D" MODIFIED DROP INLET PER USD #412.1
23. INSTALL PRECAST CURB INLET PER DETAIL 1 DRAWING SD20
24. CONSTRUCT DOUBLE TYPE 2 INLET PER NDOT STD. DRAWING R-4.2.1 & R-4.2.7
25. PLUG EXISTING/PROPOSED STORM DRAIN
26. CONSTRUCT CONCRETE COLLAR PER DETAIL 5 DRAWING SD19
27. CONNECT EXISTING 6'x3' RCB STORM DRAIN TO PROPOSED 5'x5' RCB PER DRAWING ST03
28. CONSTRUCT RCB END WALL PER DETAIL A DRAWING ST01
29. CONNECT EXISTING 7'x6' RCB TO PROPOSED 7'x6' RCB PER DETAIL D DRAWING ST01
30. RELOCATE EXISTING UTILITY (BY OTHERS)
31. PROTECT-IN-PLACE, CONTRACTOR TO SUPPORT UTILITY ACROSS THE TRENCH. ANY DESIGN REQUIRED TO SUPPORT THE UTILITY SHALL BE DONE BY THE CONTRACTOR'S ENGINEER AND SHALL BE LICENSED IN THE STATE OF NEVADA. (NO DIRECT PAYMENT)
32. PIPE PENETRATION PER DETAIL C DRAWING ST01
33. INSTALL SANITARY SEWER PROTECTION PER DCSCWS SD-21
34. INSTALL SANITARY SEWER PROTECTION PER DETAIL 3 DRAWING SD20
35. REMOVE AND REPLACE EXISTING ACP WATERLINE PER DETAIL 1 DRAWING SD21
36. EXISTING UTILITY TO BE RELOCATED
37. REMOVE AND REPLACE EXISTING VCP SANITARY SEWER PER DCSCWS SD-20

- STORM DRAIN NOTES:**
1. ALL PIPE LENGTHS MEASURED ALONG PIPE CENTERLINE TO GRADE BREAK OR TO INSIDE EDGE OF DI, RCB, OR STRUCTURE.
  2. ALL DROP INLETS SHALL INCLUDE STORM WATER MANAGEMENT STAMP AND DETAIL PER USDOCA STD. DWG. NO. 421

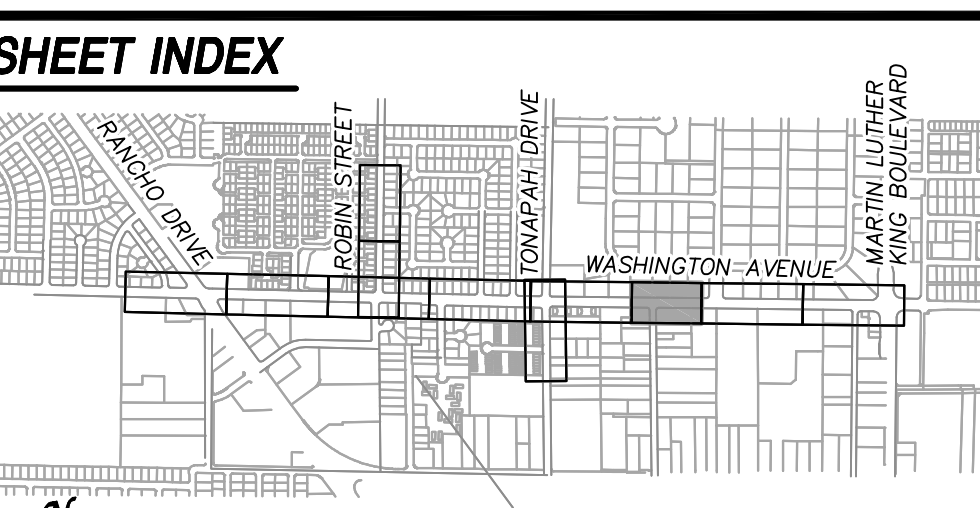
Call before you Dig  
 811  
 1-800-227-2600

**FAST**  
 Call before you UnderGround  
 1-702-432-5300

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.  
 CALL BEFORE YOU DIG OVERHEAD  
 1-702-227-2929

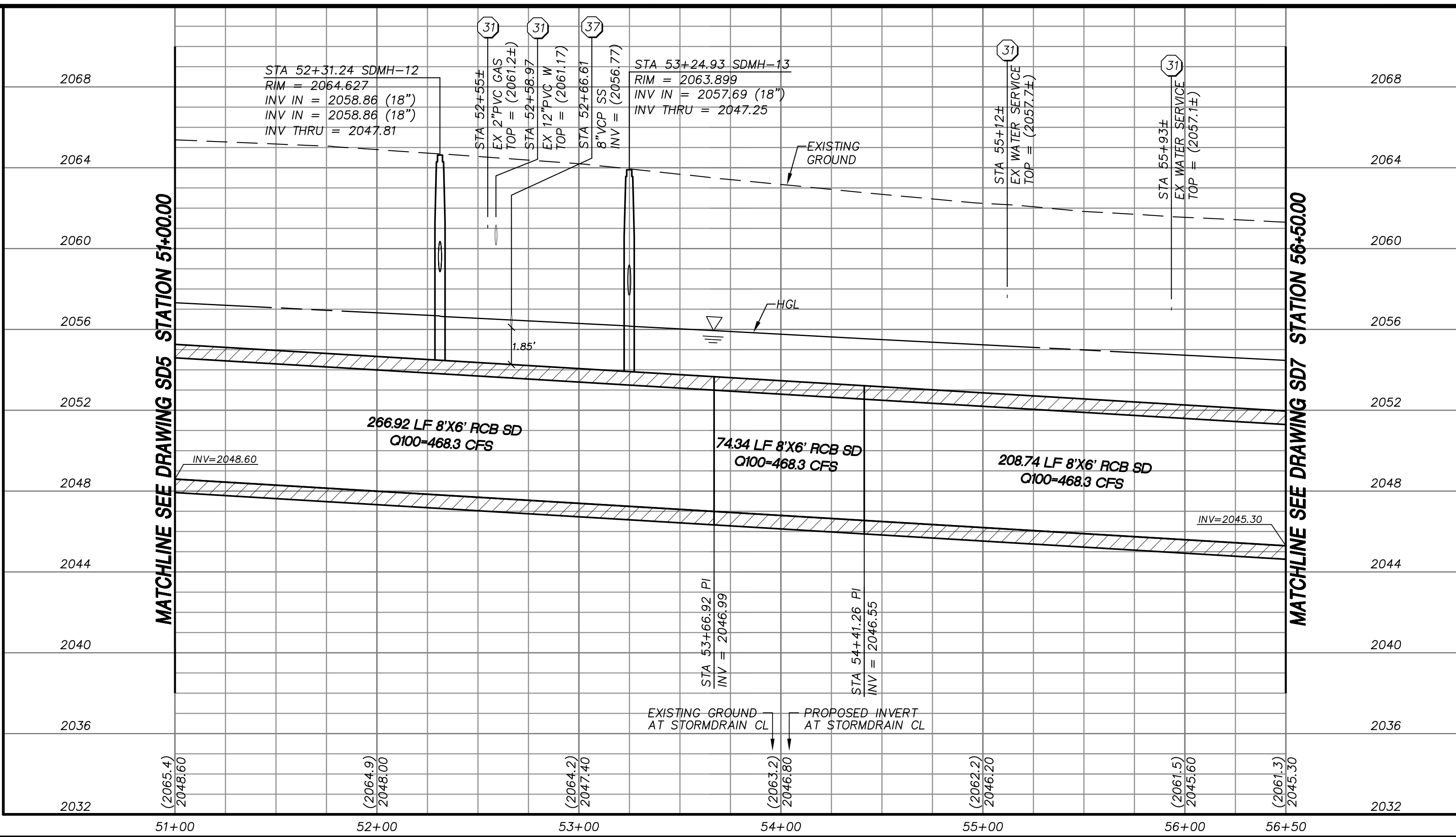


**UTILITY NOTE:**  
 ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.  
 NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATIONS.  
 THE DEPTH BELOW GRADE OF THE VARIOUS UTILITIES DEPICTED ON THE PLANS VARIES THROUGHOUT THE PROJECT AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN EXCAVATING AND GRADING THE SUBBASE IN THE VICINITY TO AVOID DAMAGE TO THE LATTER.



**ATKINS**

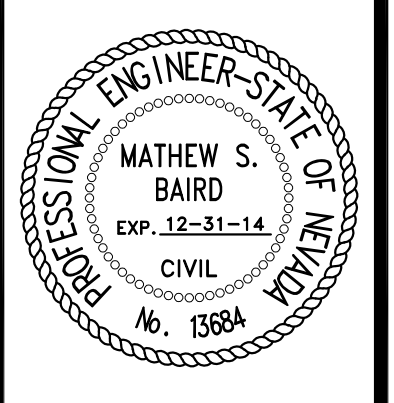
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 200 Henderson, Nevada  
 89074 Telephone:  
 702/263-7275  
 Fax: 702/263-7200



**DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING DESIGN SECTION**

CITY ENGINEER: DAVID BOWERS, P.E., P.T.O.E.  
 CITY PROGRAM MANAGER: MARK SORENSEN, P.E.  
 PROJECT MANAGER: MATT BAIRD, P.E.  
 DESIGN BY: SMB  
 CHECK BY: SCR  
 DRAWN BY: TKS  
 DATE: JUNE 2013

**FREEWAY CHANNEL - WASHINGTON  
 MLK BOULEVARD TO RANCHO DRIVE  
 (WASHINGTON AVE. STORM DRAIN)  
 STORM DRAIN PLAN AND PROFILE  
 WASHINGTON AVENUE  
 STA 51+00.00 TO STA 56+50.00**



SHEET: **SD6**  
 19 of 63  
 DRAWING: **731-90**

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**NOT FOR CONSTRUCTION 70% SUBMITTAL**