# SANITARY SEWER AND WATER IMPROVEMENTS

### GENERAL NOTES (NORTH TABLE MOUNTAIN WATER AND SANITATION DISTRICT):

- INSPECTION/REVIEW FEE = \$2.00/LF WATER AND \$1.25/LF SEWER GIS DATA COLLECTION = \$20 PER DATA POINT
- 2. CONTRACTOR MUST OBTAIN A UTILITY PERMIT FROM NIMMASD BEFORE ANY WATER OR SANITARY SEWER UTILITY CONSTRUCTION IS STARTED. FAILURE TO OBTAIN A PERMIT BEFORE START OF CONSTRUCTION WILL RESULT IN A \$600.00 PENALTY.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO CURRENT NORTH TABLE MOUNTAIN WATER AND SANITATION DISRICT (NTIMM&SD) STANDARDS AND MATERIAL SPECIFICATIONS. ALL WORK WILL BE INSPECTED BY NTIMM&SD. ANY ITEM NOT COVERED BY THESE DETAILS MUST MEET NORTH TABLE MOUNTAIN WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS AND
- 4. DETAIL SHEETS OF ALL PIPE AND APPURTENANCES MUST BE SUBMITTED FOR DISTRICT APPROVAL PRIOR TO CONSTRUCTION.
- 5. ANY CHANGES OF MATERIAL OR DEVIATIONS FROM THE APPROVED PLANS OR THESE SPECIFICATIONS MUST BE DONE WITH WRITTEN PERMISSION OF THE NTMW&SD DISTRICT ENGINEER.
- 8. THE CONTRACTOR SHALL HAVE IN HIS/HER POSSESSION AT ALL TIMES, ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY NTWWASD.
- TRENCHES SHALL NOT BE BACKFILLED UNTIL THE PIPE IS INSPECTED. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE NTMW&SD ENGINEERING INSPECTOR FOR ALL INSPECTIONS AT 303-279-2854.
- 8. A MINIMUM OF TEN (10) FEET SHALL BE MAINTAINED BETWEEN THE WATER DISTRIBUTION SYSTEM AND ALL SANITARY SEWER LINES, INCLUDING SERVICE LINES.
- 9. ROAD CUT PERMITS FOR WORK IN JEFFERSON COUNTY SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR. BACKFILL AND ROAD SURFACE REPLACEMENT SHALL MEET JEFFERSON COUNTY ENGINEERING STANDARDS OR GOVERNING JURISDICTION.
- 10. THE CONTRACTOR SHALL FURNISH TO NIMWASD ONE PRINTED SET AND ONE ELECTRONIC COPY OF THE AS-BULLT DRAWINGS IN AUTOCAD. THE AS-BULLTS SHALL SHOW THE LOCATION OF MANHOLES, THE DISTANCE BETWEEN THEM, SERVICE WE WE LOCATIONS MEASURED FROM THE UPSTEEDAM MANHOLE TO THE STUB-IN LOCATION AT THE PROPERTY. WATER MAIN TEES, BEINDS, FIRE HYDRANT LESS AND VALVES WITH THE DISTANCE BETWEEN THEM, AND SERVICE LOCATIONS MEASURED FROM THE PROPERTY LINE TO THE STUB-IN LOCATION AT THE PROPERTY.
- 11. THE DISTRICT WILL COLLECT SURVEY DATA COORDINATES OF THE INSTALLED INFRASTRUCTURE. THE DEVELOPER IS RESPONSIBLE FOR THE COST OF THE DATA COLLECTION.
- 12. WATER AND SANITARY SEWER SERVICE LOCATIONS SHALL BE PERMANENTLY MARKED ON THE FACE OF THE CURB WITH A "W" OR "S" STAMPED IN WET CONCRETE. THE UTILITY CONTRACTOR SHALL ALSO TIE THE SERVICE LINES TO THE PROPERTY CORNERS SHOWING THE DIMENSIONS ON THE "AS-BUILT" DRAWINGS.
- 13. THE CONTRACTOR SHALL WARRANTY THE CONSTRUCTION FOR TWO YEARS. A LETTER OF ACCEPTANCE WILL BE ISSUED ONCE THE PROJECT HAS BEEN INSPECTED/APPROVED AND THE GIS AND INSPECTION FEES HAVE BEEN PAID. THE TWO—YEA WARRANTY PERIOD SHALL COMMENCE AT THIS TIME.

### 14. MATERIAL QUANTITIES:

WATER MAIN: 8189 LF-8" PVC C909 471 LF-6" PVC C909 SEWER MAIN: MANHOLES: GATE VALVES: 7843 LF-8" PVC 40 EA 8"=34 EA 6"=18 EA FIRE HYDRANTS: METER PITS: 150 EA @ 3/4°

- 15. SOIL AMENDMENT IS REQUIRED FOR DEVELOPMENTS LARGER THAN TWO LOTS. EACH 1000 SQUARE FEET OF SOIL MUST BE AMENDED WITH 4 CUBIC YARDS OF APPROVED COMPOST. SEE APPROVED COMPOST UST. AMENDMENT MUST BE INCORPORATED INTO THE SOIL TO A DEPTH OF 4 TO 6 INCHES, ROTO-TILLED. THIS APPLIES TO ALL PERMEABLE AREAS OF THE DEVELOPMENT INCLUDING EACH INDIVIDUAL LOT AND ALL COMMON AREAS.
- 16. LANDSCAPE AND IRRIGATION PLANS MUST BE SUBMITTED AND APPROVED BEFORE CONSTRUCTION DRAWINGS WILL BE

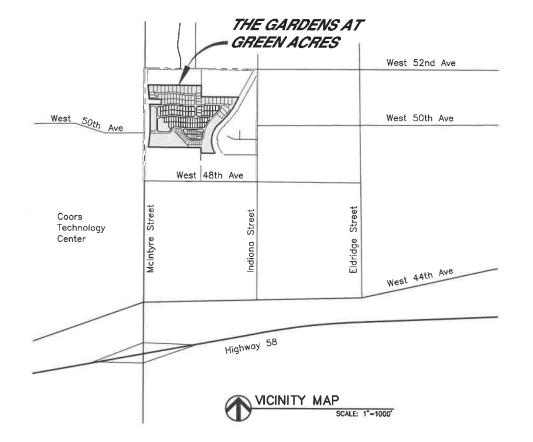
ALL BEARINGS ARE BASED ON THE WEST LINE OF THE NORTHWEST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 13, TOWNSHIP 3 SOUTH, RANGE 70 WEST OF THE 6TH PRINCIPAL MERIDIAN BEING A GRID BEARING OF NO0702\*42"E, 1326.85 FEET. SAID LINE BEING MONUMENTED BY A FOUND 2-1/2" DIAMETER ALUMINUM CAP AT THE SOUTHWEST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 13, STAMPED IN PART 12.3 TROUND 2-1/2" DIAMETER ALUMINUM CAP AT THE NORTHWEST CORNER OF NORTHWEST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 13, STAMPED IN PART 12.3 17664", SAID GRID BEARING IS BASED ON THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (502), NORTH AMERICAN DATUM 1983/92.

URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD) CONTROL POINT KNOWN AS FM-3, BEING A 3.25" BRASS CAP LOCATED APPROXIMATELY 150 FEET EAST OF FLORA STREET AND 15 FEET NORTH OF THE EDGE OF PAVEMENT OF 44TH AVENUE, HAVING A PUBLISHED ELEVATION OF 5524.42 FEET (NAVD 88).

# RECORD DRAWING

THESE DRAWINGS ARE RECORD DOCUMENTS PREPARED FROM AND BASED UPON, IN PART, INFORMATION PROVIDED BY OTHERS. NEITHER CALIBRE ENGINEERING NOR THE ENGINEER OF RECORD HAS VERIFIED THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

CALIBRE ENGINEERING BY: TAJ DATE: DECEMBER 18, 2014



## SHEET INDEX:

COVER SHEET OVERALL UTILITY PLAN SANITARY SEWER LINES SS-1 AND SS-2 SANITARY SEWER-WEST 49TH PLACE (LINE SS-4) SANITARY SEWER-JUNIPER WAY (LINE SS-3) SANITARY SEWER-WEST 50TH PLACE (LINE SS-8) SANITARY SEWER-WEST 50TH PLACE (LINE SS-9) SANITARY SEWER-WEST 50TH AVENUE (LINE SS-5) SANITARY SEWER-WEST 50TH DRIVE (LINE SS-6) SANITARY SEWER-KENDRICK COURT (LINE SS-7) SANITARY SEWER-WEST 51ST AVENUE (LINE SS-7) WATER PLAN WATER PLAN WATER PLAN WATER PLAN SANITARY SEWER AND WATER NOTES (NTMW&SD) SANITARY SEWER DETAILS WATER DETAILS

UNDERDRAIN DETAILS

## FARMERS RESERVOIR AND IRRIGATION COMPANY NOTES:

B. PROPERTY OWNER: NURSERY ACRES, LIMITED PARTNERSHIP

C. CONTRACTOR: TO BE DETERMINED

2. ALL IRRIGATION AND CANAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DESIGN CRITERIA FOR FACILITIES OF THE FARMERS RESERVOIR AND IRRIGATION COMPANY, LATEST EDITION, EXCEPT AS MODIFIED BY THESE PROJECT DRAWMIGS.

3. CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD FRICD HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE MEGLIGENCE OF FRICO.

4. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH FRICO REPRESENTATIVE AND THE JEFFERSON COUNTY TRANSPORTATION AND ENGINEERING DEPARTMENT AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION. THOSE IN ATTENDANCE SHALL INCLUDE OWNER'S REPRESENTATIVE, ENGINEER, CONTRACTOR, AND OTHER AFFECTED AGENCIES. CONSTRUCTION PLANS WILL BE DISTRIBUTED AT THE PRE-CONSTRUCTION MEETING.

5. TECHNICAL APPROVAL BY FRICO OF THIS UTILITY CROSSING DESIGN OR FACILITY IMPROVEMENT SHALL NOT CONSTITUTE AUTHORIZATION TO BEGIN WORK. A LICENSE AGREEMENT, APPROVED CONSTRUCTION SCHEDULE AND WRITTEN NOTICE TO PROCEED FROM FRICO'S GENERAL MANAGER ARE ALSO REQUIRED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. FOLLOWING THE APPROVAL OF THE DESIGN PLANS AND LICENSE AGREEMENT AND PRIOR TO THE PRE-CONSTRUCTION METHIG, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT A CONSTRUCTION SCHEDULE TO FRICO FOR REVIEW AND APPROVAL. WRITTEN APPROVAL FROM FRICO OF AN ACCEPTED CONSTRUCTION SCHEDULE TO PRICO FOR REVIEW AND APPROVAL. WRITTEN APPROVAL FROM FRICO OF AN ACCEPTED CONSTRUCTION SCHEDULE TO NOTICE TO PROCEED WILL BE RESSARY PRIOR TO THE INITIATION OF ANY CONSTRUCTION WORK RELATED TO THIS DESIGN. THE SCHEDULE SHALL INCLUDE THE DAY, MONTH AND YEAR WHEN WORK IS ALLOWED.

6. NO WORK THAT MIPACTS THE CANAL'S ABILITY TO OPERATE, MAINTAIN OR ACCESS ITS FACILITIES AND/OR CONVEY WATER WHEN REQUIRED WILL BE ALLOWED.

7. CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO AREAS DEFINED AS PERMANENT AND/OR TEMPORARY CONSTRUCTION EASEMENTS, UNLESS OTHERWISE AUTHORIZED BY FRICO AND PROPERTY OWNER.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS ACCESS FOR FRICO PERSONNEL ALONG THE LENGTH OF THE EXISTING CANAL THROUGHOUT THE COURSE OF THE PROJECT.

9. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY FRICO. FRICO RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DO NOT CONFORM TO STANDARDS AND SPECIFICATIONS.

10. CONTRACTOR SHALL VERIFY ACCURACY BETWEEN WORK SET FORTH ON THESE PLANS AND WORK REQUIRED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND FRICO REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.

11. IT IS THE ENGINEER'S RESPONSIBILITY TO RESOLVE CONSTRUCTION PROBLEMS WITH FRICO DUE TO CHANGED CONDITIONS ENCOUNTERED BY CONTRACTOR DURING THE PROGRESS OF ANY PORTION OF THE PROPOSED WORK. IF, IN THE SOLE OPINION OF FRICO, PROPOSED ALTERATIONS TO THE APPROVED CONSTRUCTION PLANS INVOLVES SIGNIFICANT CHANGES TO THE CHARACTER OF THE WORK, OR TO THE FUTURE CONTRIQUOS PUBLIC OR PRIVATE IMPROVEMENTS, ENGINEER SHALL BE RESPONSIBLE FOR SUBMITTING REVISED PLANS TO FRICO FOR REVIEW AND APPROVAL, PRIOR TO ANY FURTHER CONSTRUCTION RELATED TO THAT

12. GROUNDWATER ENCOUNTERED DURING CONSTRUCTION SHALL NOT BE RELEASED TO FRICO'S CANAL OR OTHER FACILITIES WITHOUT WRITTEN APPROVAL FROM THE FRICO GENERAL MANAGER.

13. WHERE THE EXISTING SIDES OR BOTTOM OF THE CANAL IS DISTURBED AND IS TO BE REPLACED. THE TOP TWO (2) FEET OF BACKFILL MATERIAL SHALL BE CLAY CONTAINING AT LEAST 70% BY DRY WEIGHT PASSING THE #200 SIEVE OR CONTAINING TWO PERCENT (2%) POWDERED DRY BENTONITE BY DRY WEIGHT OF SOIL BLENDED INTO THE BACKFILL MATERIAL.

14. COMPACTION TESTING FREQUENCY: COMPACTION OF BEDDING AND ALL TYPES OF BACKFILL SHALL BE TESTED AT A RATE OF AT LEAST ONE (1) TEST PER 200 CUBIC YARDS OF FILL MATERIAL OR PORTIONS THEREOF AND AT LEAST ONE (1) TEST PER 150
FEET, WHICHEVER CONTROLS. THE TESTING SHALL BE AT VARIOUS DEPTHS AND LOCATIONS. TEST RESULTS SHALL BE SUBMITTED
TO FRICO'S REPRESENTATIVE WITHIN TWENTY-FOUR (24) HOURS OF THE TEST OR ON THE NEXT WORKING DAY.

15. THE CONTRACTOR WILL BE RESPONSIBLE FOR DAILY CLEANING OF DEBRIS THAT ENTERS THE CANAL RESULTING FROM THE CONSTRUCTION. CONTRACTOR SHALL MAINTAIN SILT FENCE AND OTHER EROSION CONTORL BMP'S ON A DAILY BASIS.

16. UNLESS ANOTHER SPECIFIC MAINTENANCE AGREEMENT IS IN PLACE, CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FUNCTIONING OF FACILITY IMPROVEMENTS FOR A MINIMUM OF TWO (2) YEARS FROM THE DATE OF SUBSTANTIAL COMPLETION/CONSTRUCTION ACCEPTANCE OF THE IMPROVEMENTS BY FRICO. ANY FAILURE DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY CONTRACTOR TO THE SATISFACTION OF FRICO AT CONTRACTOR'S EXPENSE.

17. RECORD DOCUMENTS ARE TO BE SUPPLIED TO FRICO PRIOR TO SUBSTANTIAL COMPLETION/CONSTRUCTION ACCEPTANCE OF THE CONSTRUCTION. MYLAR RECORD DOCUMENTS AND AN ELECTORNIC VERSION OF THE DRAWNGS (PDF OR AUTOCAD FORNAT) SHALL BE SUBMITTED PRIOR TO FRICO ACCPETANCE AND SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER.

FARMERS RESERVOIR AND IRRIGATION COMPANY CONTACT: CASEY SULLIVAN, LEAD MAN MARSHALL-STANDLEY LAKE DIVISIONS (303-944-2891)

FRICO APPROVAL BLOCK

ir signoture is for the purpose of acknowledging acceptance or use of the Permitted Structures only. Nothing in Grantor's signoture in any way extend the rights and obligations of the Grantor other seat forth in the Non-Exchable Right Of Way Essement to which designs are officient. Grantor is expressly relying upon the design rate and the performance standards set forth in these drewings as

FRICO GENERAL MANAGER

LUND

DATE: JULY 2, 2013 SCALE: AS SHOWN

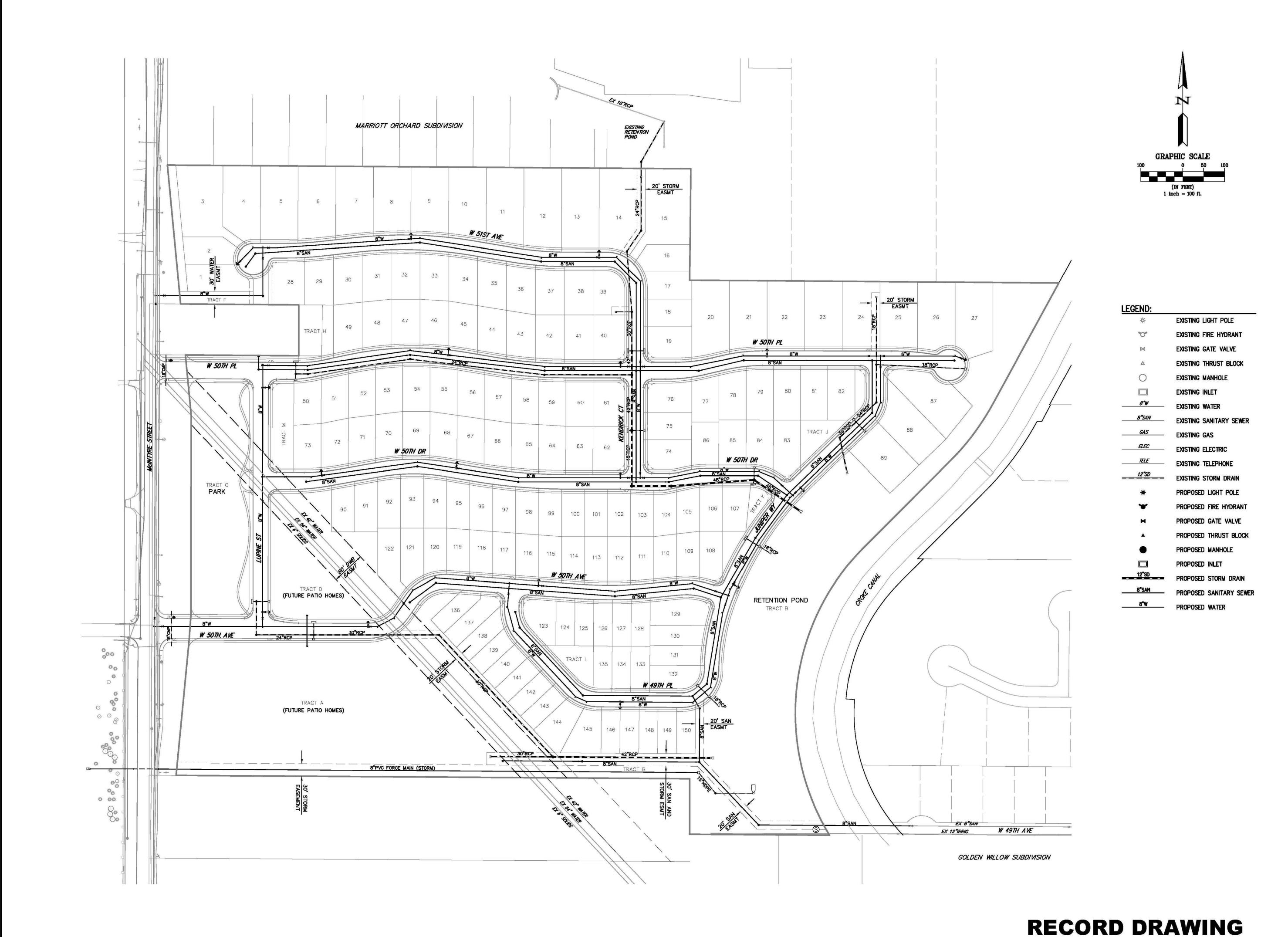
SHEET C4.01

12265 W. Bayaud Avenue, Suite 130 JOB NO. 478-0601 Lakewood, Colorado 80228 P:303.989.1461 F: 303.989.4094 CIVIL ENGINEERING & SURVEYING

PREPARED FOR: NURSERY ACRES, LIMITED PARTNERSHIP 9010 SOUTH SANTA FE DRIVE, LITTLETON, CO 80125

THESE CONSTRUCTION PLANS WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION)
IN ACCORDANCE WITH THE REQUIREMENTS OF THE NORTH TABLE MOUNTAIN WATER AND SANITATION DISTRICT.

FREDERICK C. ROAT, PE 28611 FOR AND ON BEHALF OF THE LUND PARTNERSHIP, INC.



LUND
PARTNERSHIP

12265 W. Bayaud Avenue, Suite 130
Lakewood, Colorado 80228
P:303.989.1461 F: 303.989.4094
CIVIL ENGINEERING & SURVEYING

No. Revision Date By

N ACRES, LIMITED PARTNERSHIP

OUTH SANTA FE DRIVE, LITILETON, CO 80125

A

GREEN

AT

GARDEN

CALL UTILITY NOTIFICATION
CENTER OF COLORADO
811
CALL 3 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES

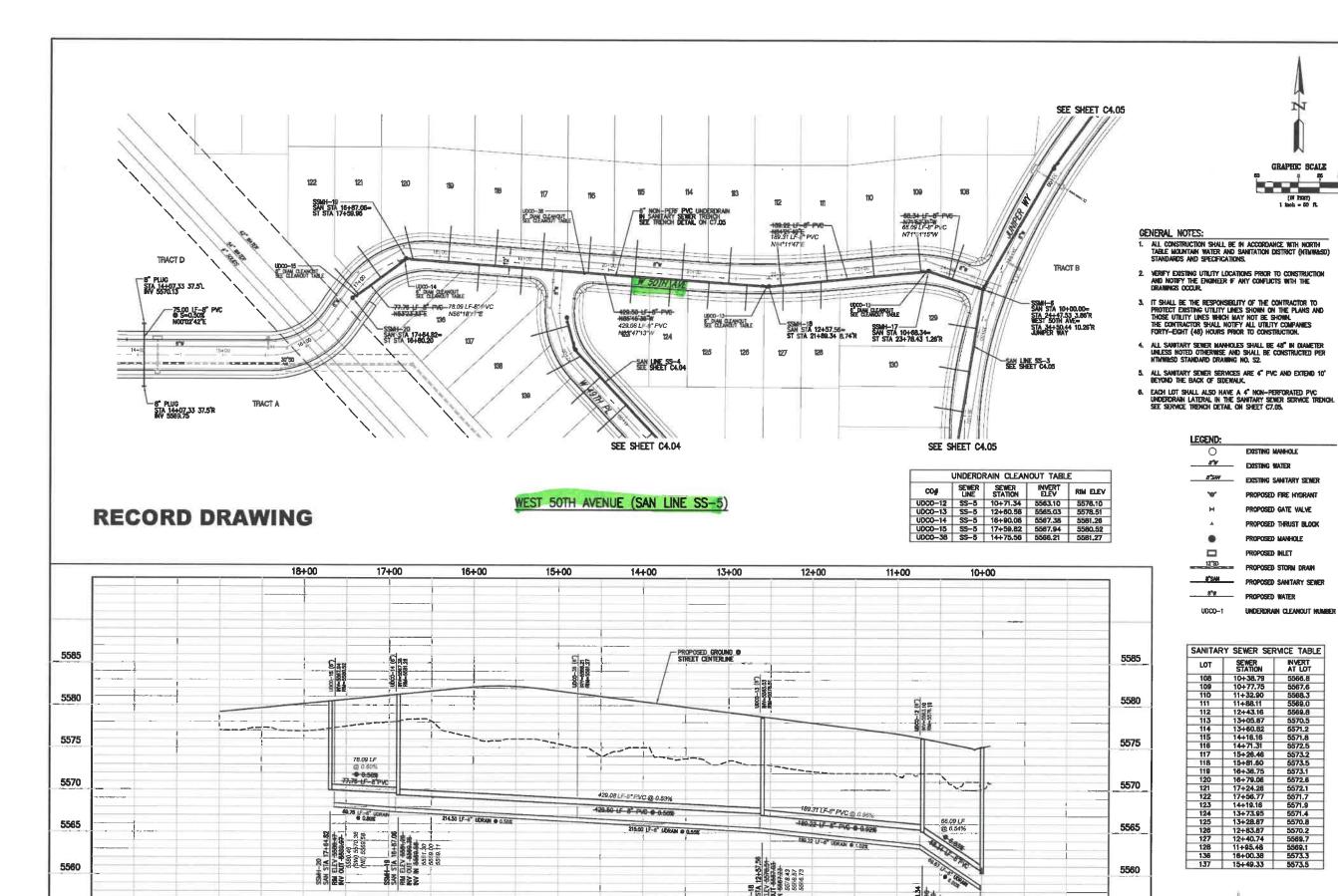
DATE: JULY 2, 2013

JOB NUMBER: 478-0601

SCALE: 1\*=100'

SHEET

C4.02



PROFILE-SAN LINE SS-5

14+00

15+00

23 B32

13+00

12+00

NA BEE

11+00

10+00

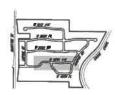
LUND

No.	Revision	Date	В,
-		-	-
+		_	$\vdash$
1			
+			-
+			
$\neg$			

GRAPHIC SCALE

SANITARY SEWER PLAN AND PROFILE WEST 50TH AVENUE (SAN LINE SS-5) ACRES GREEN AT GARDENS

CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES



5555

INVERT AT LOT



DATE: JULY 2, 2013				
JOB NUMBER: 478-0601				
SCALE: AS SHOWN				
SHEET				

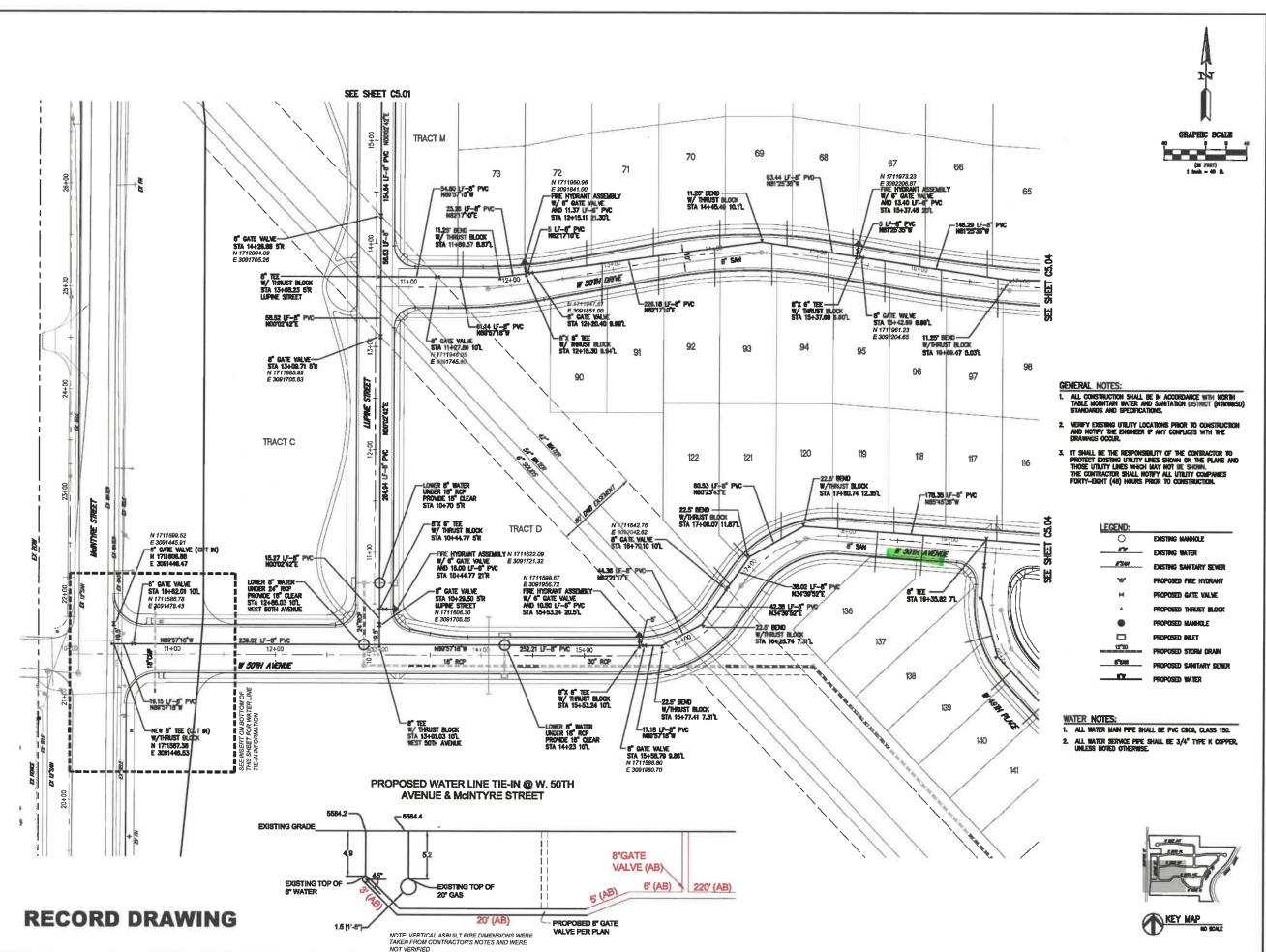
C4.08

5555

18+00

17+00

16+00



PARTINERSHIP

12265 W. Reput J. Perma. Sela. 150

12265 W. Reput J. Perma. Sela. 150

PARTINERSHIP

12265 W. Reput J. Perma. Sela. 150

PARTINERSHIP

PARTIN

No.	Revision	Date	By
Т			
$\neg$			
$\neg$			
$\neg$			
$\neg$			
$\top$		+	
+			
+			

GARDENS AT GREEN ACRES
R PLAN

CALL UTILITY NOTIFICATION
CENTER OF COLORADO
811
CALL SIUSINESS DAYS IN ADVANCE
BEFORE VOLDIS, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND

WATER

MEMBER UTILITIES

DATE: JALY 2, 2013
JOB MAMBER: 478-0801
SCALE: 1\*-40'
SHEET
C5.03