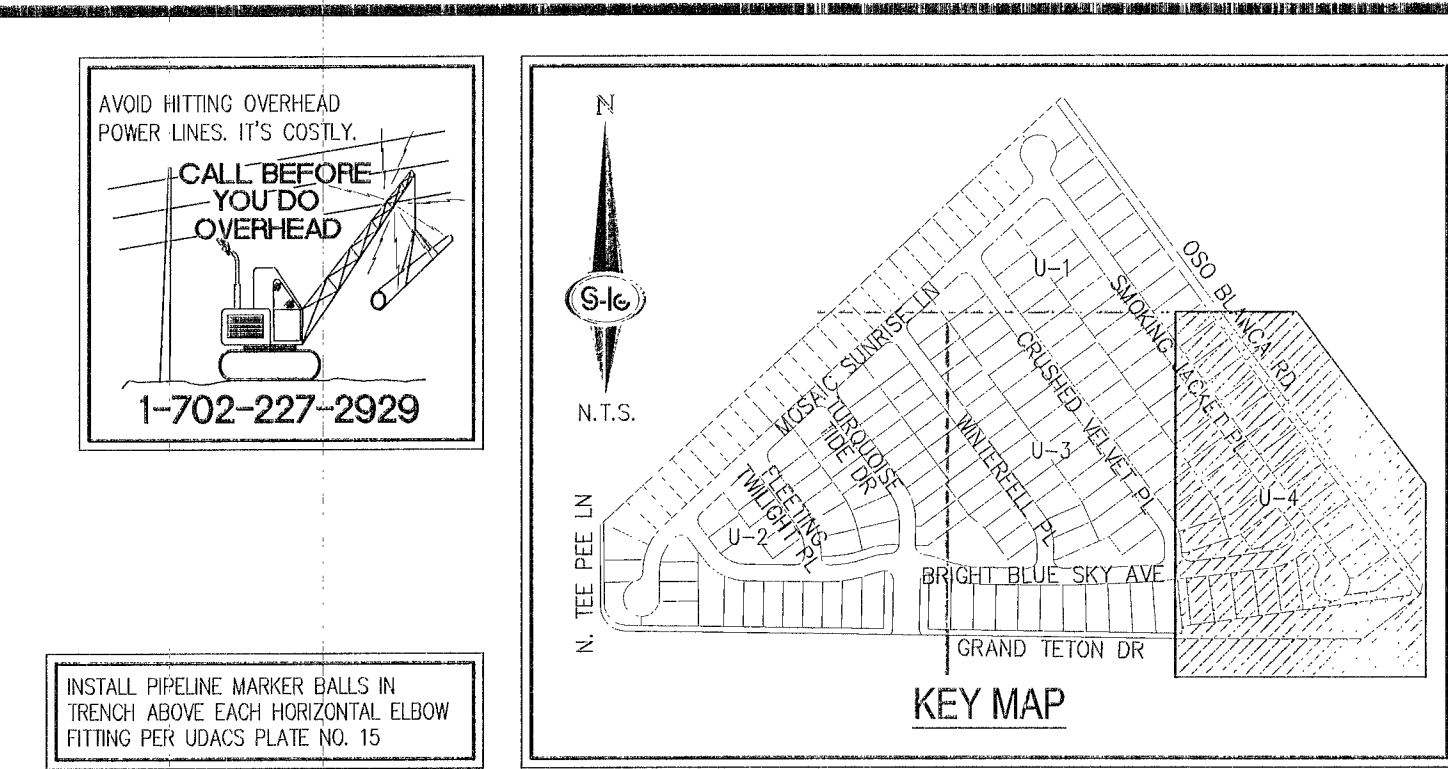
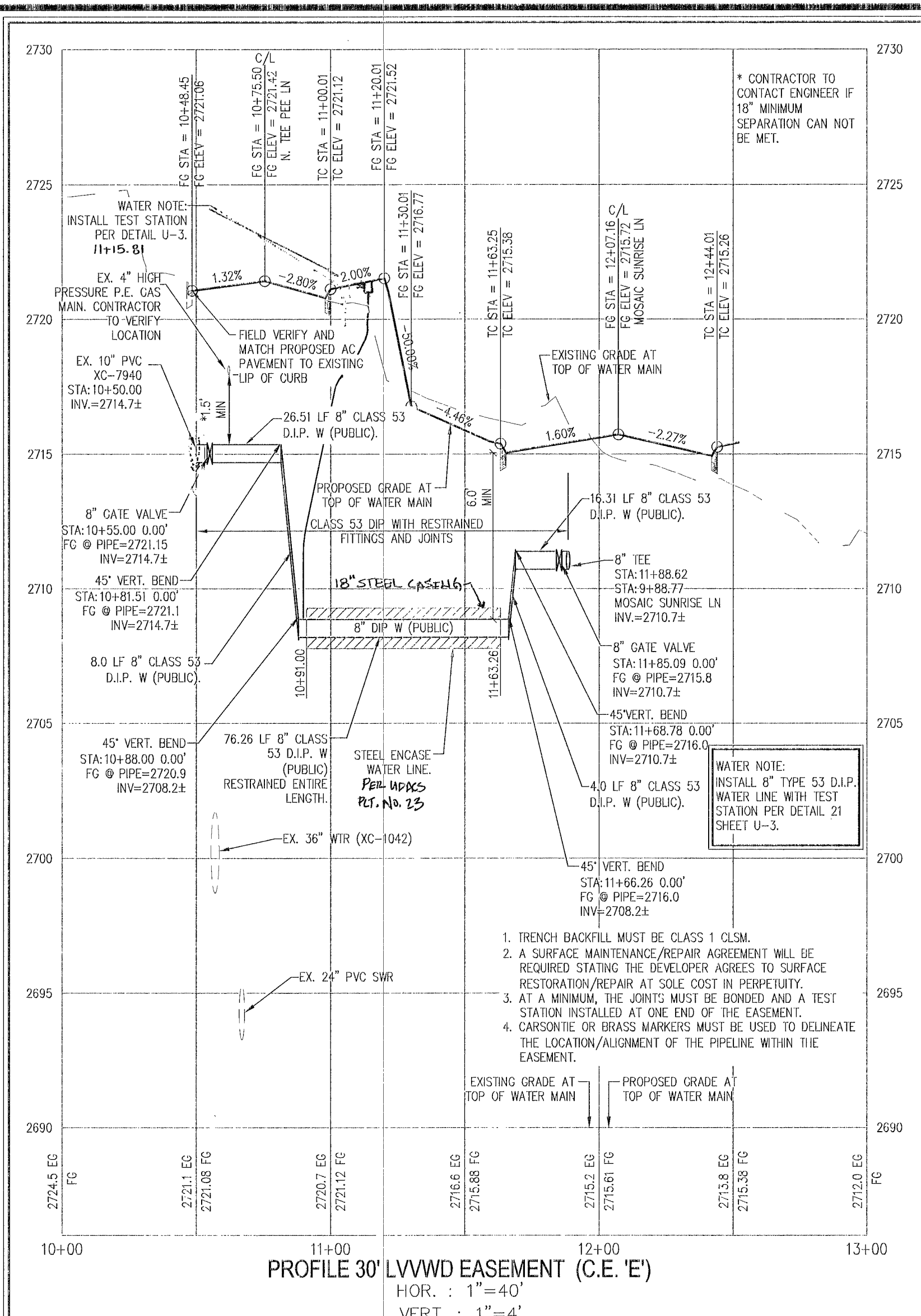
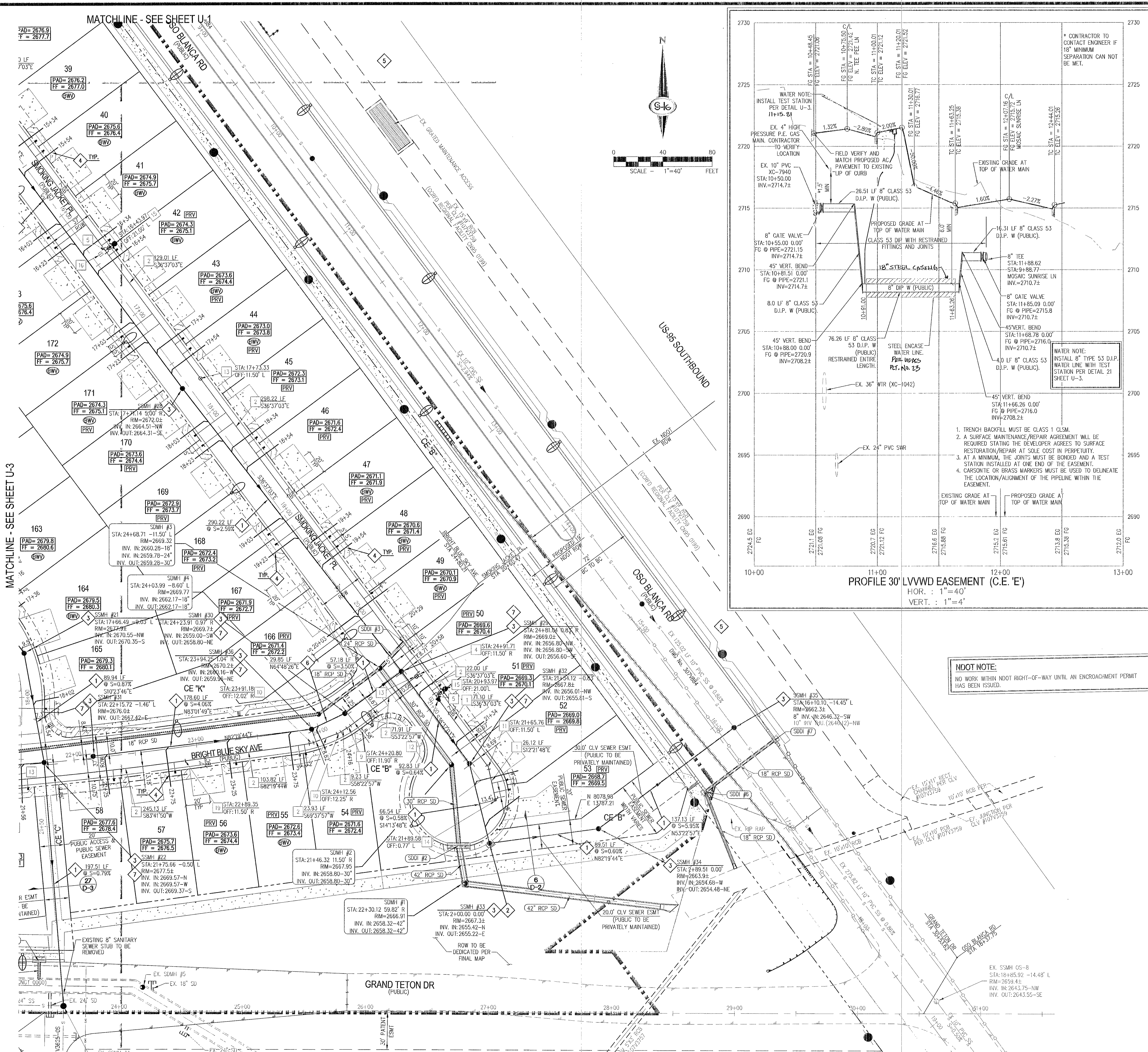




- ### GENERAL NOTES
- REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
 - IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN INCA LEVEL 1 ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.0102.
 - ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
 - THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
 - FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.

- ### WATER NOTES
- 8" PVC WATER PIPE (2860 WP2)
 - 8" PVC WATER PIPE (2860 WP2)
 - 8" DIP WATER PIPE (CLASS 53)
 - 8" X 8" TEE PER UDACS PLATE NO. 31
 - 8" X 8" TEE PER UDACS PLATE NO. 31
 - 10" X 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS PLATE NO. 34, 39, & UDACS SECTION 2.24.01A
 - 12" X 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS PLATE NO. 34, 39, & UDACS SECTION 2.24.01B
 - 1 DEGREE MAXIMUM JOINT DEFLECTION PER UDACS SECTION 2.07.01
 - 5 DEGREE BEND WITH RESTRAINED JOINTS
 - 11.25 DEGREE BEND PER UDACS PLATE NO. 31
 - 22.5 DEGREE BEND PER UDACS PLATE NO. 31
 - 8"x6" REDUCER PER UDACS PLATE NO. 30
 - 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
 - CAP AND 2" BLOW-OFF VALVE PER UDACS PLATE NO. 36
 - FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
 - INSTALL BLUE REFLECTIVE RAISED PAVEMENT MARKERS
 - 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 2
 - 1" COPPER SERVICE W/ 1" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8 (BROSS BETWEEN METER AND RPPA)
 - POINT OF CURVATURE OF WATER MAIN USING 1" JOINT DEFLECTIONS PER UDACS SECTION 2.07.01
 - 45 DEGREE BEND PER UDACS PLATE NO. 31
 - 45 DEGREE VERT. BEND - SEE SHEET U-1 FOR PROFILE AND WATER LINE QUANTITIES.
- ### SEWER NOTES
- 8" PVC SANITARY SEWER PIPE
 - INSTALL MANHOLE CONCRETE COLLAR PER DCSWCS SD-4
 - 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A
 - INSTALL 4" PVC SANITARY SEWER LATERAL, PLUG AND 4"x4" POST PER DCSWCS SD-22
 - ADJUST PROPOSED MANHOLE TO EXISTING GRADE
 - 8" C-900 WATER QUALITY PIPE (SANITARY SEWER)
 - 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A INSTALLED WITH WATERLOUT JOINTS USING LVVWD APPROVED INTERNAL ELASTOMER JOINT SEALANT IN COMPLIANCE WITH ASTM C920.

DISCLAIMER NOTE

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 EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

NOTE

PER 19.08 & 19.12 ALL ABOVE-GROUND UTILITY BOXES SHALL BE FULLY SCREENED FROM ALL RIGHTS OF WAY.

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS **1150** GALLONS PER MINUTE AT 20 P.S.I. RESIDUAL PRESSURE.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
AUTOMATIC FIRE SPRINKLERS	NO
SQUARE FOOTAGE	4700
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<5
NO. OF STORIES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO. OF HYDRANTS INSTALLED	12

BENCHMARK

RIVET & PLATE ON NORTHEAST OF HEADWALL ON THE WEST SIDE OF OSO BLANCA RD. 200' SSE OF FORT APACHE & RACEL, 7LV9085W66

NAVD 88 ELEV=814.651 METERS=2672.73 FEET

BASIS OF BEARING

NORTH 00°48'23" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION 7, TOWNSHIP 19 SOUTH, RANGE 60 EAST, N.M.D. OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 122, PAGE 37 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

APPROVED FOR CONSTRUCTION

Doreen Head
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: **7/17/13** PROJECT NO. 121229
LVVWD APPROVED FIRE FLOW **1150** GPM AT 20 PSI RESIDUAL

APPROVAL

Doreen Head
LAS VEGAS FIRE AND RESCUE
DATE: **7/16/13**

SLATER HANFAN GROUP

CONSULTING ENGINEERS & PLANNERS

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89115
PHONE (702) 284-5390 FAX (702) 284-5399

CITY OF LAS VEGAS, NV

NO.

DATE

BY

DATE

DESCRIPTION

DR. HORTON

GRAND TETON AND TEE PEE

UTILITY PLAN IV

DATE: 04/09/13

DRAFTER: DSP

DESIGNER: DSP

CHECKED: DJP

PROJECT NO. DRH1213-000

PROFESSIONAL ENGINEER - SLATER HANFAN GROUP

DARRIN J. PAAP

CIVIL

NO. 15815