



HARDROCK DIRECTIONAL DRILLING
11105 PERRIN BETTEL
SAN ANTONIO, TX 78061
AT/COA - MAIN TO JUNCTION #29 DIRECTIONAL DRILL
DRAWING: DD 2HD.16-1013

ENTRY SIDE - PROPOSED
TEMPORARY EASEMENT AREA
COVERAGE

GENERAL NOTES:
1. MAP IS BASED ON XAD 1983 CENTRAL STATE PLANE ZONE - 490315 FEET.
2. TOTAL HATCHED AREA IS EQUAL TO 22,376.59 SQ FT.
3. TOTAL PERIMETER IS EQUAL TO 2,078.86 FT.

LEGEND
PROPOSED TEMPORARY EASEMENT: —



TOTAL PERIMETER = 1,852.34 FT

TOTAL AREA = 22,541.94 SQ FT



HARDROCK DIRECTIONAL DRILLING
11105 PERRIN BETTEL
SAN ANTONIO, TX 78061
AT/COA - MAIN TO JUNCTION 420' DIRECTIONAL DRILL
DRAWING: DD 3HD.16-1013

ENTRY SIDE - GENERAL PERMIT
EASEMENT AREA COVERAGE

GENERAL NOTES:
1. MAP IS BASED ON XAO 1983 CENTRAL STATE PLANE ZONE 490315 FEET.
2. TOTAL HATCHED AREA IS EQUAL TO 22,541.94 SQ FT.
3. TOTAL PERIMETER IS EQUAL TO 1,852.34 FT.

LEGEND
INITIAL TEMPORARY EASEMENT: —



HARDROCK DIRECTIONAL DRILLING
11105 PERRIN BETTEL
SAN ANTONIO, TX 78061
AT/COA - MAIN TO JUNCTION #29 DIRECTIONAL DRILL
DRAWN BY: DD 3HD 16-1013

ENTRY SIDE - PROPOSED PIPE
STRING LAY DOWN WITH
DIMENSIONING

GENERAL NOTES:
1. MAP IS BASED ON NAD 1983 CENTRAL STATE PLANE ZONE 490315 FEET.

LEGEND
PROPOSED PIPE STRING LAYDOWN: —



HARDROCK DIRECTIONAL DRILLING
1105 PERRIN BETTEL
SAN ANTONIO, TX 78061

AT/COA - MAIN TO JUNCTION 420 DIRECTIONAL DRILL DRAWING #: DD.2HD.16-1013

ENTRY SIDE - PROPOSED TEMPORARY EASEMENT WITH DIMENSIONING

GENERAL NOTES:

1. MAP IS BASED ON NAD 1983 CENTRAL STATE PLANE ZONE 4203 US FEET.

LEGEND

PROPOSED TEMPORARY EASEMENT:

1



HARDROCK DIRECTIONAL DRILLING
11105 PERRIN BETTEL
SAN ANTONIO, TX 78061
AT/COA - MAIN TO JUNCTION 429 DIRECTIONAL DRILL
DRAWING: DD 3HD.16-1013

ENTRY SIDE - PROPOSED
EASEMENT GEOGRAPHIC
POSITIONING CALLOUTS

GENERAL NOTES:
1. MAP IS BASED ON NAD 1983 CENTRAL STATE PLANE ZONE 490115 FEET.

LEGEND
PROPOSED TEMPORARY EASEMENT: —



HARDROCK DIRECTIONAL DRILLING
11105 PERRIN BETTEL
SAN ANTONIO, TX 78061

AT/COA - MAIN TO JUNCTION 420' DIRECTIONAL DRILL

DRAWN BY:
DD 3HD16-1013

ENTRY SIDE - COMPLETE
WORKSPACE FOOTPRINT

GENERAL NOTES:

1. MAP IS BASED ON XAD 1983 CENTRAL STATE PLANE ZONE 420315 FEET.

LEGEND

PROPOSED TEMPORARY EASEMENT:
BORE PATH:
COA RDW/PARD BOUNDARY:

