# PUBLIC NOTICE

**US Army Corps of Engineers®**
**Albuquerque District**

| | |
|---|---|
| Permit Application No.: | SPA-2011-545-ABQ |
| Project Name: | *Montoyas Arroyo Sanitary Sewer Interceptor Improvements Project* |
| Applicant: | City of Rio Rancho |
| Waterway: | Los Montoyas Arroyo |
| Public Notice Date: | January 20, 2012 |
| Comment Due Date: | February 10, 2012 |
| CE Contact Phone: | (505)342-3374 |

Reply To:

Regulatory Division
US Army Corps of Engineers, Albuquerque District
4101 Jefferson Plaza, NE
Albuquerque, NM 87109-3435

## PERMIT APPLICATION UNDER SECTION 404 OF THE CLEAN WATER ACT (33 USC 1344)

Summary of Proposed Project: The United States Army Corps of Engineers, Albuquerque District (Corps) is requesting public comment on the following project before the above comment due date. The City of Rio Rancho (the City) proposes to install approximately 2,582 linear meters [m] (8,470 linear feet [ft]) of 30-inch DR-21 high-density polyethylene (HDPE) pipe below the bed surface of the Los Montoyas Arroyo from the north side of Northern Boulevard to the water quality structure upstream of the SportsPlex Dam east of Broadmoor Drive, and then another 137 m (450 ft) of 36-inch HDPE sanitary sewer DR-21 HDPE pipe will be installed to connect to an existing 36-inch HDPE pipe at the project terminus. This project would result in approximately 11 acres of impacts to waters of the United States (U.S.). This notice is to inform interested parties of the proposed activity and to solicit comments. Details of the proposed project are provided below.

Name of Applicant:

City of Rio Rancho, Department of Public Infrastructure
POC – Scott Sensanbaugher, P.E., Eng. Mgr.
3200 Civic Center Circle NE
Rio Rancho, NM 87144
Ph. – (505)891-5016

Location: The project site is located in the Los Montoyas Arroyo between the north side of Northern Boulevard and the SportsPlex Dam in Rio Rancho, New Mexico; and within the Alameda Land Grant in Sandoval County, New Mexico (Latitude 35.26606°, Longitude -106.67961°).

***NEWS RELEASE***

Description of Work: The applicant proposes to install approximately 2,582 linear meters [m] (8,470 linear feet [ft]) of 30-inch DR-21 HDPE pipe below the bed surface of the Los Montoyas Arroyo from the north side of Northern Boulevard to the water quality structure upstream of the SportsPlex Dam east of Broadmoor Drive, and then another 137 m (450 ft) of 36-inch HDPE sanitary sewer DR-21 HDPE pipe will be installed to connect to an existing 36-inch HDPE pipe at the project terminus.

The 30-inch and 36-inch pipes comprise the main trunk line for the proposed system. In addition to the main trunk line, eight branch lines ranging in size from 10-inch to 16-inch DR-21 HDPE will be constructed. These branch lines will either tie-in to existing sewer lines and become active or be capped in advance of future sanitary sewer line construction. However, no individual service connections will attach to the proposed system. A total of 31 HDPE manholes will provide access and will be spaced at intervals not greater than 183 m (600 ft) along the main trunk line. The HDPE manholes will contain watertight flanged and bolted manways. The top of the flange will be the highest part of the manhole and will be no closer than 1.5 m (5 ft) from the bottom of the arroyo. All pipes will be installed at a minimum depth of 2.8 m (9 ft) below the arroyo bottom. All connections between pipes and at the manholes will be either butt-fusion welds or electrofusion couplings; thus, the system will have no mechanical joints or fittings and will be watertight.

Horizontal directional boring will be used to cross under the existing box culverts at Northern Boulevard and Broadmoor Drive. With the exception of the boring, open trench construction will be used throughout the project. Excavated material will be replaced in the trench to provide bedding and backfill for the pipeline. The total volume of dredged material is estimated to be 42,745 cubic yards. The volume of dredged material that will be displaced by the proposed pipeline is estimated to be 1,958 cubic yards. The volume displaced by the 31 manholes is estimated to be 350 cubic yards. With the exception of the volume associated with the pipeline and manholes, all excavated material will be replaced; thus, approximately 2,300 cubic yards of excavated material will be graded into the arroyo bed.

The applicant proposes using standard heavy construction equipment (see attached drawings). Construction of the project is scheduled to occur sometime between October 2012 and March 2013 and is expected to take 4 months to complete.

Purpose and Need: Based on the available information, the Corps has determined that the overall project purpose is to replace an existing 15-inch polyvinyl chloride (PVC) sewer that is located along the west and south bank of the Los Montoyas Arroyo and is being adversely affected by continuous lateral erosion; and to provide additional capacity to serve future development in the Montoyas Arroyo watershed.

Environmental Setting: The project area is located within the Mexican Highland Section of the Basin and Range physiographic province. Plains and piedmont plains with alluvial fans and some scattered hills define this province. The major drainage in the vicinity of the project area is the Rio Grande, the largest drainage in the state of New Mexico; however the majority of streams in this region are ephemeral or intermittent waterways, flowing only after storm events.

More specifically, the project area is in an urbanized setting within the Albuquerque Basin ecoregion. The Albuquerque Basin has a semi-arid climatic regime, with annual precipitation ranging from 8 to 11 inches (Griffith et al. 2006). Late summer thunderstorms are the source of most of the moisture. Average temperatures range from 19 degrees Fahrenheit (F) to 49 degrees F in the winter and 62 degrees F to 92 degrees F in the summer (World Climate 2008). Elevations in the project area range from 1,612 m (5,289 ft) to 1,655 m (5,430 ft) above mean sea level.

The project area is characterized by the Chihuahuan Desert Scrub biotic community, and is dominated by sand sagebrush (*Atemisia filifolia*) and fourwing saltbush (*Atriplex canescens*). Other plant species identified in the project area include Apache plume (*Fallugia paradoxa*), plains prickly pear (*Opuntia polyacantha)*, broom snakeweed (*Gutierrezia sarothrae*), coyote willow (*Salix exigua*), Russian thistle (*Salsola tragus*), salt cedar (*Tamarix chinensis*), and Rio Grande cottonwood saplings (*Populus deltoides*). Wildlife observed within the project area include black-tailed jackrabbit (*Lepus californicas*), eastern fence lizard (*Sceloporus undulates*), and the common raven (*Corvus corax*)

A single atypical wetland was identified within the project area. It measures approximately 0.04 acres and is the result of modification of the arroyo to accommodate surface runoff from the adjacent residential development. The project will not impact this wetland.

Mitigation Proposed by the Applicant: Proposed mitigation includes backfilling the trench to the grade of the arroyo beds and reestablishing vegetation along disturbed arroyo banks.

The applicant will not disturb channel banks that contain existing bank swallow or burrowing owl habitat. Prior to initiating construction activities, the City will coordinate with the New Mexico Department of Game and Fish (NMDGF) to identify existing habitat and provide a location map to the Corps showing the areas to be protected. Furthermore, the City will establish and maintain fenced buffers using orange safety fence, silt fencing, or other similar material to prohibit vehicular and heavy equipment from accessing the protected areas.

In regard to birds protected under the Migratory Bird Treaty Act, construction activities will be coordinated so as not to occur during the nesting season, which is generally from about March 15 to August 31. If there are areas in the arroyo that are proposed for construction during the nesting season, then additional consultation with the NMDGF will be conducted.

Plans and Data: Drawings showing the location of the work site and other data are enclosed with this notice. If additional information is desired, it may be obtained from the applicant, or from:

Mr. Chris Parrish
Regulatory Division
Albuquerque District, Corps of Engineers
4101 Jefferson Plaza, NE
Albuquerque, NM 87109-3435
(505)342-3374
Fax No. 505-344-1514

Alternatives: The applicant has provided information concerning three project alternatives. Alternative 1 is the "no action" alternative, which is described as providing no new capacity and as potentially resulting in future damage to the existing interceptors from continued lateral erosion of the side bank. Alternative 2 involves routing the new interceptor from the Los Montoyas Arroyo through an easement north of Idalia Road, and then installing the line along Chessman Drive to Cascades Trail, where it would continue south and east along Cascades Trail to Biscayne Way. From this point the line would turn north and connect to the existing 36-inch Loma Colorado-Montoyas Arroyo Outfall Sanitary Sewer. Alternative 3 is identified by the project proponent as the preferred alternative. It is described above under *Project Description*.

Additional information concerning project alternatives may be available from the applicant or their agent. All reasonable project alternatives, in particular those which may be less damaging to the aquatic environment, will be considered.

Statement of Findings: The District Engineer has consulted the National Register of Historic Places and no properties listed in the Register are present at the site of the proposed construction. Consultation with the New Mexico State Historic Preservation Office (NMSHPO) has not revealed any pending nominations. Furthermore, a cultural resource survey of the project area was conducted by SWCA Environmental Consultants personnel on October 17, 2011. No cultural resources were encountered during the survey. As such, the Corps has determined that no historic propertied will be affected by the proposed undertaking. However, consultation with the State Historic Preservation Officer will be necessary to complete the Corps review process concerning effects to historic properties.

The following is a list of endangered (E) and threatened (T) species and/or critical habitat (CH) for Sandoval County, New Mexico:

| | |
|---|---|
| * Black-footed ferret (*Mustela nigripes*) | E |
| * Mexican spotted owl (*Strix occidentalis lucida*) | T, CH |
| * Rio Grande silvery minnow (*Hybognathus amarus*) | E, CH |
| * Southwestern willow flycatcher (*Empidonax traillii*) | E |

On October 26, 2011, SWCA Environmental Consultants personnel conducted a biological survey of the project area to assess the potential for threatened or endangered species to be present. No individuals or critical habitat for these species were encountered during the survey. As such, the Corps has made a preliminary determination that the proposed undertaking will have no effect to any Federally-listed endangered or threatened species or their critical habitat.

The applicant is required to obtain water quality certification under Section 401 of the Clean Water Act from the New Mexico Environment Department. Section 401 requires that any applicant for an individual Section 404 permit provide documentation of water quality certification to the Corps of Engineers prior to permit issuance.

At the request of the Department of Public Safety, Emergency Management Preparedness, State Coordinator, we are sending a copy of this notice to the local flood plain administrator to apprise the administrator of proposed development within their jurisdiction. In accordance with 44 CFR Part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), participating communities are required to review all proposed development to determine if a flood plain development permit is required. The local Flood Plain Administrator is required to perform this review for all proposed development and maintain records of such review. You may contact:

Department of Public Safety
State Floodplain Coordinator
Attn: Mr. Bill Borthwick
Email: wborthwick@dps.state.nm.us
Phone: 505-476-9617

In accordance with environmental procedures and documentation required by the National Environmental Policy Act of 1969, an environmental assessment will be prepared for this project. Upon completion, the assessment may be seen at the U.S. Army Corps of Engineers, Albuquerque District Office at the address given above.

Comment: Any comments concerning this project should be received by the District Engineer no later than February 10, 2012. Comments received after the end of the Public Notice comment period will not be considered. However, more time may be given if a request, with a valid reason, is received prior to the suspense date. The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed below. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The evaluation of the impact of this activity will include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act. All factors relevant to the proposal and the cumulative effects will be considered; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

If the District Engineer determines that the project complies with the 404(b)(1) guidelines, he will grant the permit unless issuance would be contrary to the public interest.

Any person may request a public hearing. The request must be submitted, in writing, to the District Engineer within 21 days of the date of this notice and must clearly set forth the reasons for holding a public hearing.

Jason D. Williams
Lieutenant Colonel, U.S. Army
District Commander

Enclosure

Montoyas Arroyo Sanitary Sewer Interceptor Improvement Project
City of Rio Rancho, Sandoval County, NM
Vicinity Map
Application by the City of Rio Rancho
Application No. SPA-2011-00545-ABQ
Sheet 1 of 7 January 20, 2012

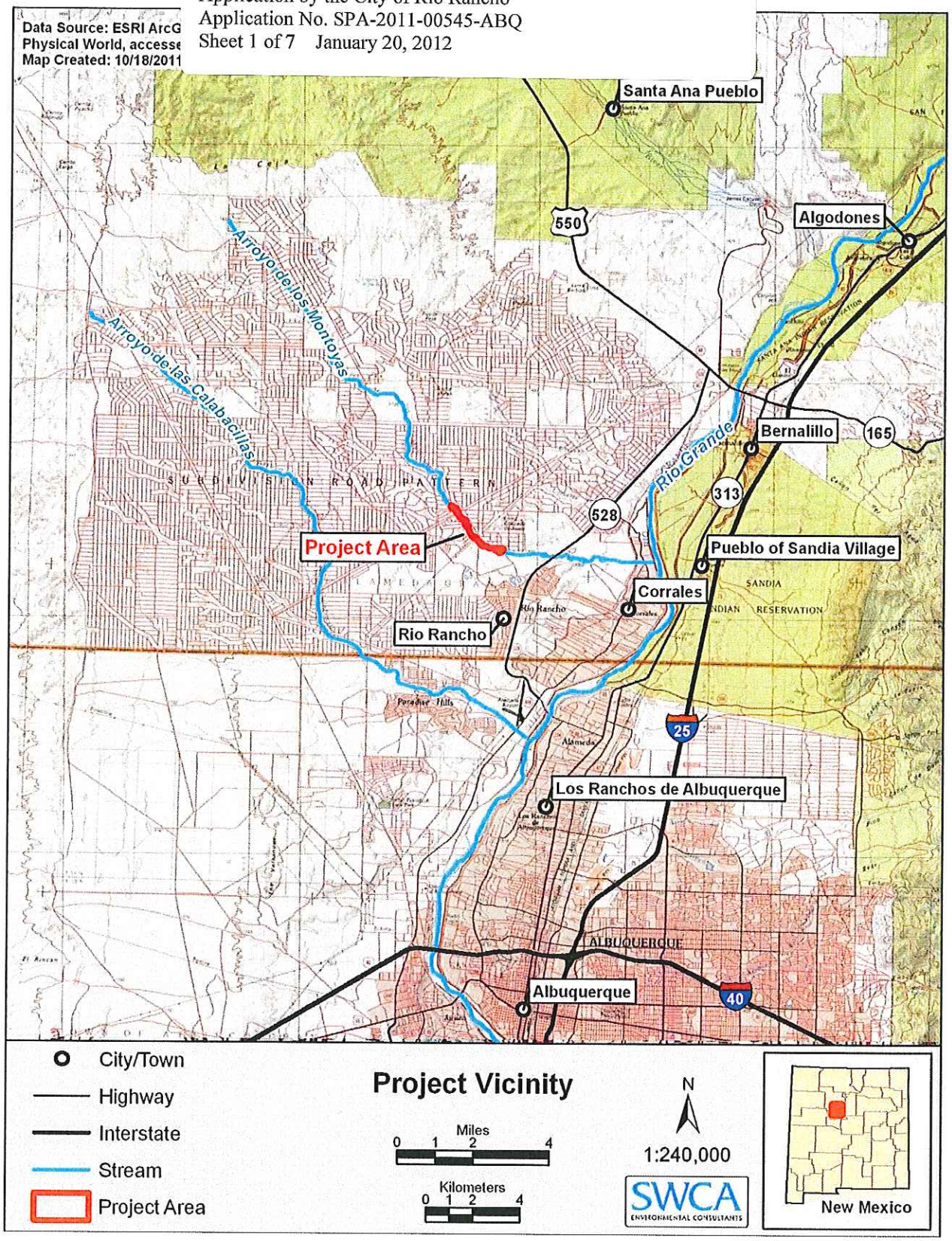



**Figure 2. Project vicinity map.**

Montoyas Arroyo Sanitary Sewer Interceptor Improvement Project
City of Rio Rancho, Sandoval County, NM
Project Area Map
Application by the City of Rio Rancho
Application No. SPA-2011-00545-ABQ
Sheet 2 of 7 January 20, 2012

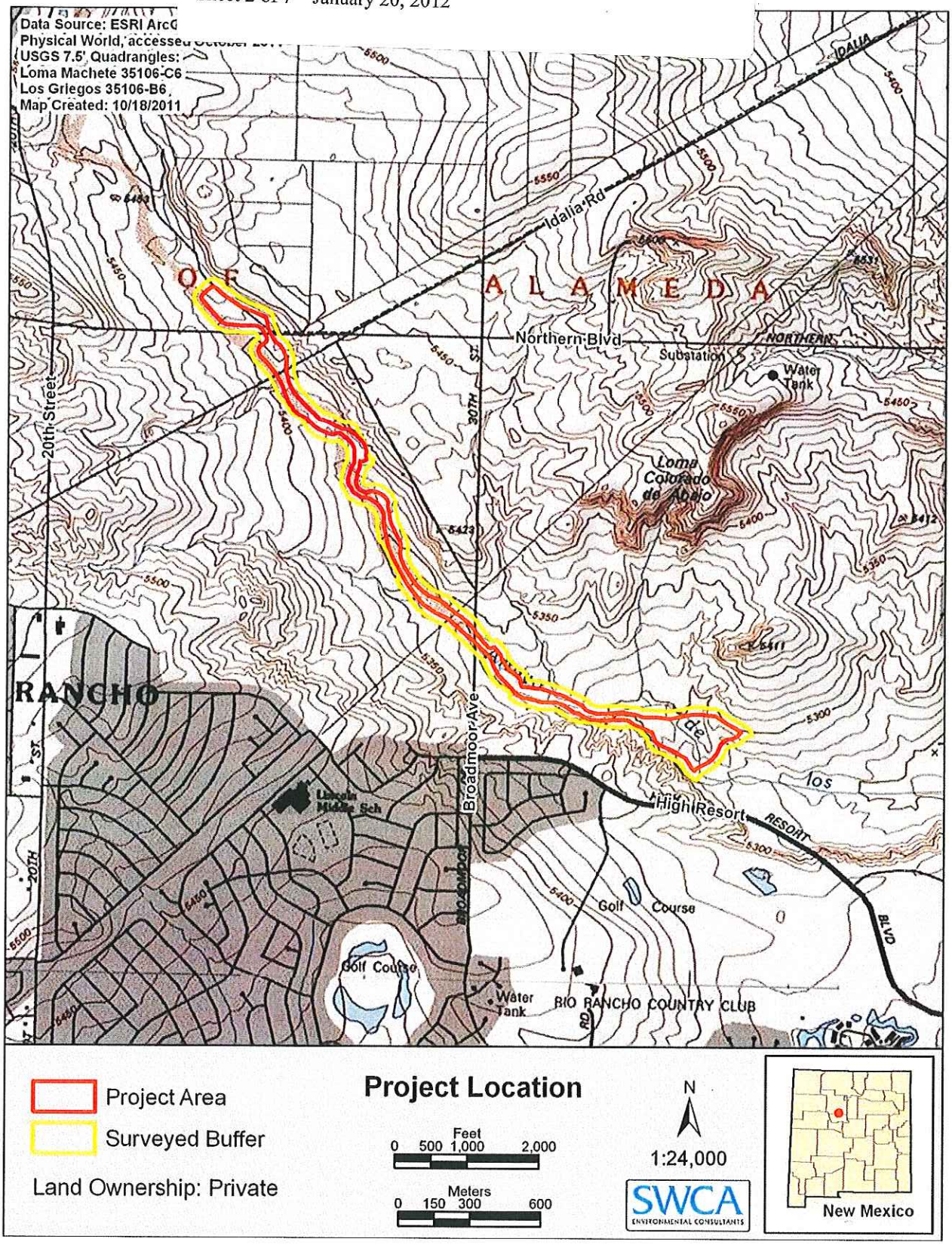
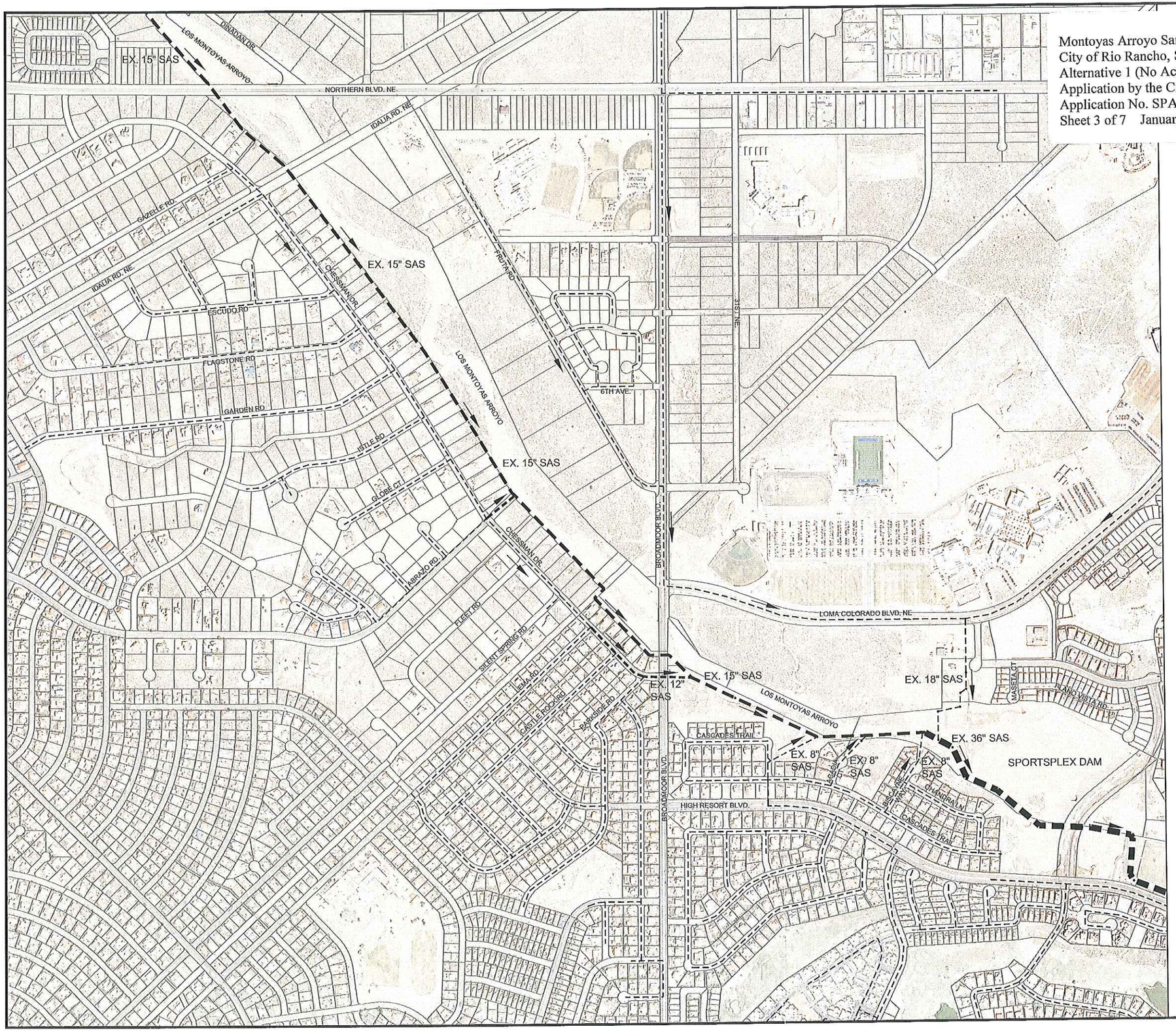



**Figure 1. Project location map.**

Montoyas Arroyo Sanitary Sewer Interceptor Improvement Project
City of Rio Rancho, Sandoval County, NM
Alternative 1 (No Action) Drawing
Application by the City of Rio Rancho
Application No. SPA-2011-00545-ABQ
Sheet 3 of 7 January 20, 2012

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REVISIONS (OR CHANGE NOTICES)

CITY of RIO RANCHO

RioRancho City of Vision

WILSON & COMPANY
2600 THE AMERICAN RD. SE SUITE 100
RIO RANCHO, NM 87124
PHONE: 505-898-8021
FAX: 505-898-8501
www.wilsonco.com

MONTOYAS ARROYO
SANITARY SEWER
404 PERMIT APPLICATION

EXHIBIT 11
ALTERNATIVE 1 ALIGNMENT
"NO ACTION" ALTERNATIVE
EXISTING 15-INCH INTERCEPTOR

SCALE: 1"=400'

| | |
|---|---|
| PROJECT NO. 07200020-67 | |
| DESIGNED BY: | JDB |
| DRAWN BY: | JDB |
| CHECKED BY: | JDB |
| DATE: 12-2011 | |

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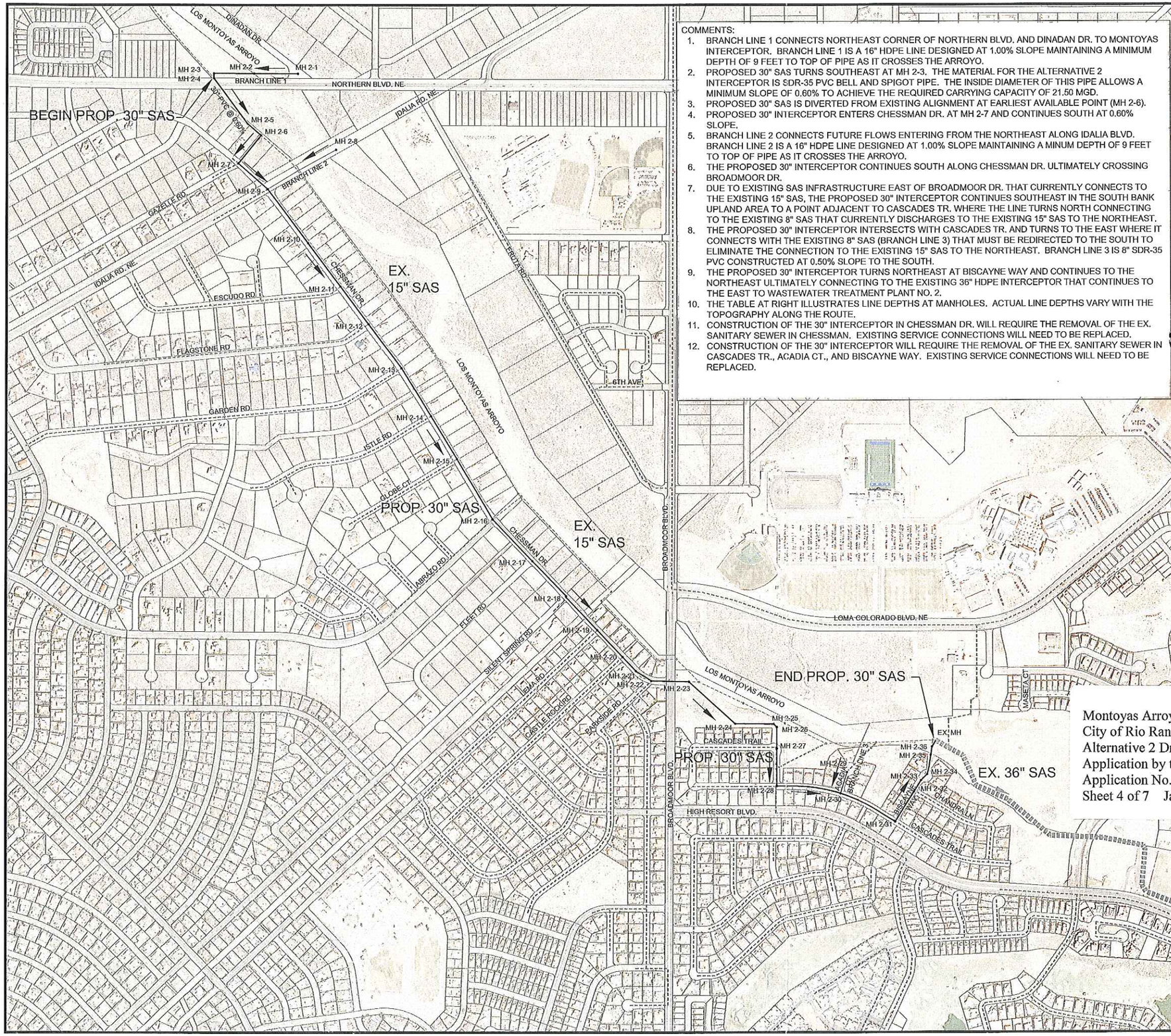


COMMENTS:

1. BRANCH LINE 1 CONNECTS NORTHEAST CORNER OF NORTHERN BLVD. AND DINADAN DR. TO MONTOYAS INTERCEPTOR. BRANCH LINE 1 IS A 16" HDPE LINE DESIGNED AT 1.00% SLOPE MAINTAINING A MINIMUM DEPTH OF 9 FEET TO TOP OF PIPE AS IT CROSSES THE ARROYO.
2. PROPOSED 30" SAS TURNS SOUTHEAST AT MH 2-3. THE MATERIAL FOR THE ALTERNATIVE 2 INTERCEPTOR IS SDR-35 PVC BELL AND SPIGOT PIPE. THE INSIDE DIAMETER OF THIS PIPE ALLOWS A MINIMUM SLOPE OF 0.60% TO ACHIEVE THE REQUIRED CARRYING CAPACITY OF 21.50 MGD.
3. PROPOSED 30" SAS IS DIVERTED FROM EXISTING ALIGNMENT AT EARLIEST AVAILABLE POINT (MH 2-6).
4. PROPOSED 30" INTERCEPTOR ENTERS CHESSMAN DR. AT MH 2-7 AND CONTINUES SOUTH AT 0.60% SLOPE.
5. BRANCH LINE 2 CONNECTS FUTURE FLOWS ENTERING FROM THE NORTHEAST ALONG IDALIA BLVD. BRANCH LINE 2 IS A 16" HDPE LINE DESIGNED AT 1.00% SLOPE MAINTAINING A MINUM DEPTH OF 9 FEET TO TOP OF PIPE AS IT CROSSES THE ARROYO.
6. THE PROPOSED 30" INTERCEPTOR CONTINUES SOUTH ALONG CHESSMAN DR. ULTIMATELY CROSSING BROADMOOR DR.
7. DUE TO EXISTING SAS INFRASTRUCTURE EAST OF BROADMOOR DR. THAT CURRENTLY CONNECTS TO THE EXISTING 15" SAS, THE PROPOSED 30" INTERCEPTOR CONTINUES SOUTHEAST IN THE SOUTH BANK UPLAND AREA TO A POINT ADJACENT TO CASCADES TR. WHERE THE LINE TURNS NORTH CONNECTING TO THE EXISTING 8" SAS THAT CURRENTLY DISCHARGES TO THE EXISTING 15" SAS TO THE NORTHEAST.
8. THE PROPOSED 30" INTERCEPTOR INTERSECTS WITH CASCADES TR. AND TURNS TO THE EAST WHERE IT CONNECTS WITH THE EXISTING 8" SAS (BRANCH LINE 3) THAT MUST BE REDIRECTED TO THE SOUTH TO ELIMINATE THE CONNECTION TO THE EXISTING 15" SAS TO THE NORTHEAST. BRANCH LINE 3 IS 8" SDR-35 PVC CONSTRUCTED AT 0.50% SLOPE TO THE SOUTH.
9. THE PROPOSED 30" INTERCEPTOR TURNS NORTHEAST AT BISCAYNE WAY AND CONTINUES TO THE NORTHEAST ULTIMATELY CONNECTING TO THE EXISTING 36" HDPE INTERCEPTOR THAT CONTINUES TO THE EAST TO WASTEWATER TREATMENT PLANT NO. 2.
10. THE TABLE AT RIGHT ILLUSTRATES LINE DEPTHS AT MANHOLES. ACTUAL LINE DEPTHS VARY WITH THE TOPOGRAPHY ALONG THE ROUTE.
11. CONSTRUCTION OF THE 30" INTERCEPTOR IN CHESSMAN DR. WILL REQUIRE THE REMOVAL OF THE EX. SANITARY SEWER IN CHESSMAN. EXISTING SERVICE CONNECTIONS WILL NEED TO BE REPLACED.
12. CONSTRUCTION OF THE 30" INTERCEPTOR WILL REQUIRE THE REMOVAL OF THE EX. SANITARY SEWER IN CASCADES TR., ACADIA CT., AND BISCAYNE WAY. EXISTING SERVICE CONNECTIONS WILL NEED TO BE REPLACED.

## Montoyas Arroyo Sanitary Sewer Alternatives Analysis Alternative 2-Manhole Depths

| Manhole ID | Alignment Station | Rim Elevation | Invert Elevation | Depth ft |
|---|---|---|---|---|
| 2-1 | 10+00.00 | 5,417.03 | 5,397.67 | 19.36 |
| 2-2 | 13+50.00 | 5,409.91 | 5,394.17 | 15.74 |
| 2-3 | 16+65.90 | 5,411.17 | 5,389.84 | 21.33 |
| 2-4 | 17+06.49 | 5,415.26 | 5,389.59 | 25.67 |
| 2-5 | 21+58.25 | 5,408.41 | 5,386.88 | 21.53 |
| 2-6 | 23+00.00 | 5,405.00 | 5,386.03 | 18.97 |
| 2-7 | 25+96.68 | 5,416.74 | 5,384.25 | 32.49 |
| 2-9 | 29+13.15 | 5,417.26 | 5,377.95 | 39.31 |
| 2-10 | 34+06.07 | 5,411.71 | 5,374.99 | 36.72 |
| 2-11 | 38+96.07 | 5,402.35 | 5,372.05 | 30.30 |
| 2-12 | 42+63.98 | 5,392.38 | 5,369.84 | 22.54 |
| 2-13 | 46+96.06 | 5,389.71 | 5,367.25 | 22.46 |
| 2-14 | 51+50.00 | 5,381.53 | 5,364.53 | 17.00 |
| 2-15 | 55+50.00 | 5,376.52 | 5,362.13 | 14.39 |
| 2-16 | 61+11.30 | 5,365.79 | 5,351.78 | 14.01 |
| 2-17 | 65+64.84 | 5,361.80 | 5,346.86 | 14.94 |
| 2-18 | 69+61.85 | 5,357.25 | 5,342.55 | 14.70 |
| 2-19 | 73+26.96 | 5,346.05 | 5,330.89 | 15.16 |
| 2-20 | 76+19.66 | 5,343.36 | 5,327.72 | 15.64 |
| 2-21 | 77+76.01 | 5,342.00 | 5,326.02 | 15.98 |
| 2-22 | 79+21.68 | 5,340.41 | 5,324.44 | 15.97 |
| 2-23 | 82+21.25 | 5,338.14 | 5,321.18 | 16.96 |
| 2-24 | 87+17.36 | 5,346.34 | 5,318.21 | 28.13 |
| 2-25 | 90+21.45 | 5,335.96 | 5,316.38 | 19.58 |
| 2-26 | 90+56.91 | 5,337.99 | 5,316.17 | 21.82 |
| 2-27 | 92+27.44 | 5,338.85 | 5,315.15 | 23.70 |
| 2-28 | 95+26.97 | 5,344.30 | 5,313.35 | 30.95 |
| 2-30 | 100+45.33 | 5,344.65 | 5,310.24 | 34.41 |
| 2-31 | 105+34.42 | 5,345.11 | 5,307.31 | 37.80 |
| 2-32 | 108+17.16 | 5,331.90 | 5,305.61 | 26.29 |
| 2-33 | 109+24.29 | 5,327.21 | 5,304.97 | 22.24 |
| 2-34 | 109+93.55 | 5,324.03 | 5,304.55 | 19.48 |
| 2-35 | 111+50.00 | 5,316.99 | 5,303.61 | 13.38 |
| 2-36 | 112+13.72 | 5,311.75 | 5,300.00 | 11.75 |
| EX. MH | 112+74.44 | 5,306.30 | 5,292.67 | 13.63 |
| 2-8 | N/A | 5,404.19 | 5,384.34 | 19.85 |
| 2-29 | N/A | 5,335.97 | 5,327.27 | 8.70 |

Montoyas Arroyo Sanitary Sewer Interceptor Improvement Project
City of Rio Rancho, Sandoval County, NM
Alternative 2 Drawing
Application by the City of Rio Rancho
Application No. SPA-2011-00545-ABQ
Sheet 4 of 7 January 20, 2012

CITY of RIO RANCHO

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REVISIONS (OR CHANGE NOTICES)

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FAX: 505-898-8501
www.wilsonco.com

MONTOYAS ARROYO SANITARY SEWER 404 PERMIT APPLICATION

EXHIBIT 12
ALTERNATIVE 2
CHESSMAN DRIVE TO CASCADES TRAIL

SCALE: 1"=400'

PROJECT NO. 07200020-67
DESIGNED BY: JDB
DRAWN BY: JDB
CHECKED BY: JDB
DATE: 12-2011

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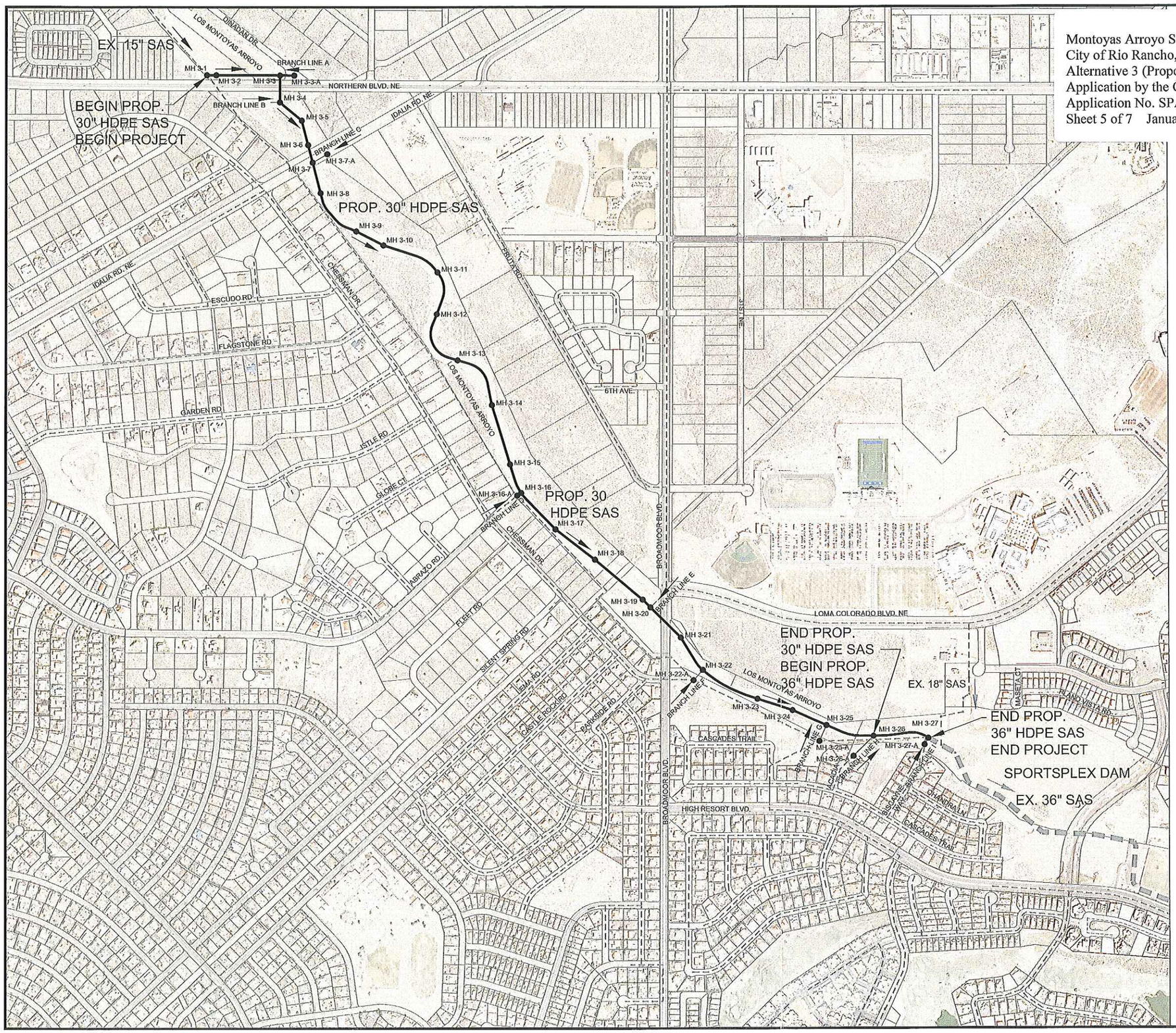
Montoyas Arroyo Sanitary Sewer Interceptor Improvement Project
City of Rio Rancho, Sandoval County, NM
Alternative 3 (Proposed) Drawing
Application by the City of Rio Rancho
Application No. SPA-2011-00545-ABQ
Sheet 5 of 7 January 20, 2012




City of Vision
CITY of RIO RANCHO

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REVISIONS (OR CHANGE NOTICES)


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MONTOYAS ARROYO
SANITARY SEWER
404 PERMIT APPLICATION

EXHIBIT 2
PROPOSED 30-INCH HDPE SANITARY
SEWER INTERCEPTOR LOCATION

N

SCALE: 1" = 400'

| | |
|---|---|
| PROJECT NO. 07200020-67 | |
| DESIGNED BY: | JDB |
| DRAWN BY: | JDB |
| CHECKED BY: | JDB |
| DATE: 12-2011 | |

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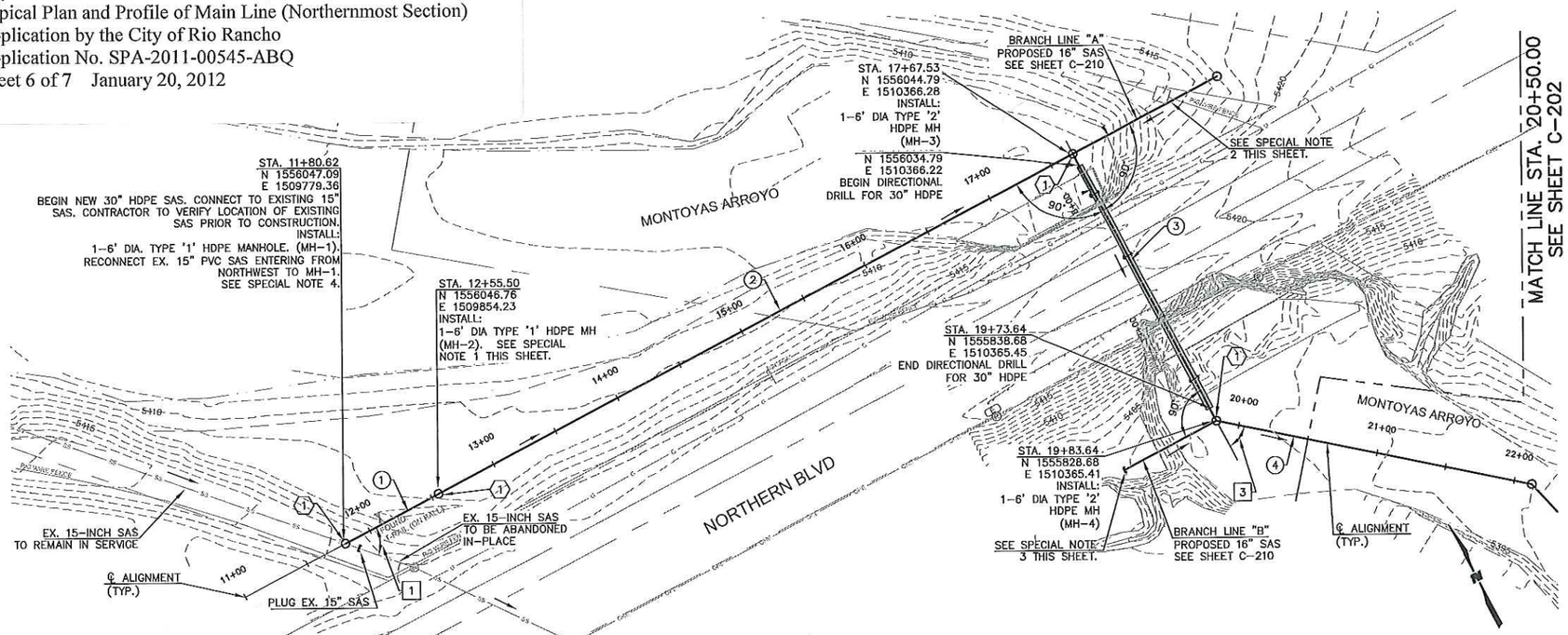
Montoyas Arroyo Sanitary Sewer Interceptor Improvement Project
City of Rio Rancho, Sandoval County, NM
Typical Plan and Profile of Main Line (Northernmost Section)
Application by the City of Rio Rancho
Application No. SPA-2011-00545-ABQ
Sheet 6 of 7 January 20, 2012




MAINTENANCE OF EXISTING SERVICE AND BY-PASSING NOTE:

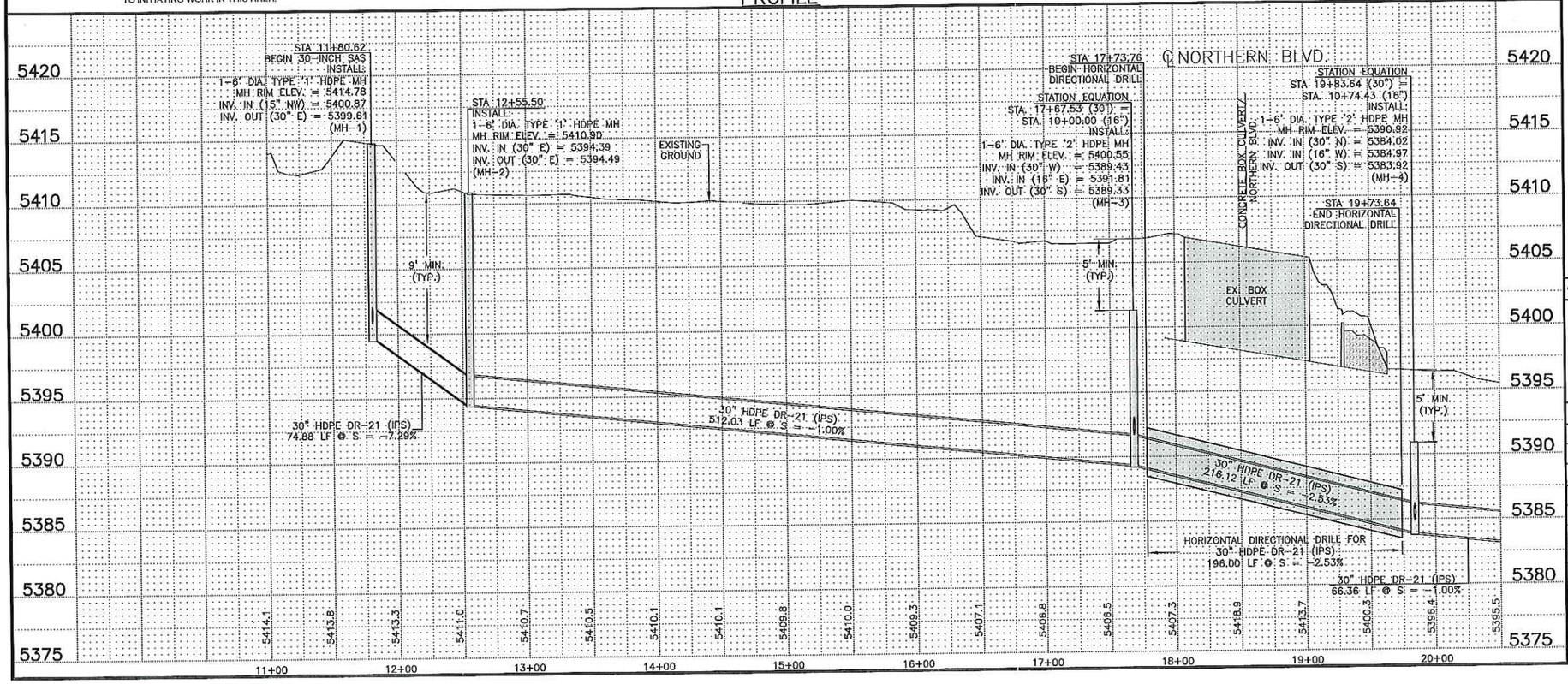
NO SERVICE DISRUPTION TO EX. 15" SAS WILL BE ALLOWED. CONTRACTOR SHALL COORDINATE NECESSARY BY-PASS PUMPING WITH CITY STAFF PRIOR TO INITIATING WORK IN THIS AREA.

PLAN

PLAN: SCALE: 1"=50'

PROFILE: SCALE: 1"=50' HORZ, SCALE: 1"=10' VERT

PROFILE




## GENERAL NOTES

1. THE MANUFACTURERS OF ALL HDPE APPURTENANCES SHALL SUBMIT SHOP DRAWINGS, DETAILS, AND ANY INFORMATION REGARDING MANHOLES, VENTS, ETC., REQUESTED BY THE CITY OF RIO RANCHO FOR APPROVAL PRIOR TO CONSTRUCTION.
2. ALL MATERIALS AND INSTALLATION METHODS FOR HDPE PIPES, MANHOLES, APPURTENANCES, ETC., SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATION AND RECOMMENDED PRACTICES.
3. CONTRACTOR SHALL REPLACE AND/OR RESTORE ALL PAVEMENT, CURBS & GUTTERS, SIDEWALKS, STORM DRAINS, AND APPURTENANCES, ROCK SURFACING, LANDSCAPING, FENCING, AND OTHER SITE FIXTURES DAMAGED DIRECTLY OR INDIRECTLY BY CONTRACTOR. WHERE APPLICABLE, THEY SHALL BE RESTORED TO THE CURRENT CITY OF RIO RANCHO STANDARDS. REPAIR AND/OR REPLACEMENT OF THESE ITEMS SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
4. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK. DAMAGE TO ANY UTILITIES CAUSED BY CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE AND COST FOR SUCH REPAIRS SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE.
5. MINIMUM 2.0' CLEARANCE BETWEEN PIPELINE AND EXISTING UTILITIES, OR USE LEANFILL ASTM D-1557.
6. PROTECT EXISTING TREES AND EXISTING FENCING FROM DAMAGE, UNLESS OTHERWISE NOTED ON PLAN. DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE AND COST FOR SUCH REPAIRS SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE.
7. CONTRACTOR SHALL COORDINATE WITH THE CITY TRAFFIC OPERATIONS DEPARTMENT IN THE EVENT OF ANY CONDUIT IMPACTS.

## SPECIAL NOTES:

1. MANHOLE 2 IS INTENDED TO PROVIDE ACCESS FOR FUTURE SERVICE TO WEST SIDE OF ARROYO ALONG NORTH RIGHT-OF-WAY OF NORTHERN BLVD. DESIGN OF CONNECTING SAS AND MANHOLES WILL BE PERFORMED IN FUTURE BASED ON DESIGN REQUIREMENTS.
2. BRANCH LINE "A" IS INTENDED TO PROVIDE FUTURE SERVICE TO EAST SIDE OF ARROYO FROM NORTHWEST AND SOUTHEAST VIA FUTURE DROP CONNECTIONS. DESIGN OF CONNECTING SAS AND MANHOLES WILL BE PERFORMED IN FUTURE BASED ON DESIGN REQUIREMENTS.
3. BRANCH LINE "B" IS INTENDED TO PROVIDE FUTURE SERVICE TO WEST SIDE OF ARROYO ALONG SOUTH RIGHT-OF-WAY OF NORTHERN BLVD. DESIGN OF CONNECTING SAS AND MANHOLES WILL BE PERFORMED IN FUTURE BASED ON DESIGN REQUIREMENTS.
4. REMOVE AND DISPOSE OF 10 FT OF EX. 15" PVC SAS DOWNSTREAM OF NEW MH-1 AND PLUG EX. 15" SAS PER NMAWPA 920.6.3. REMOVAL AND DISPOSAL OF EX. SAS AND INSERTION OF MORTAR PLUG SHALL BE INCIDENTAL TO PIPELINE INSTALLATION AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE.

## KEYED NOTES

1. INSTALL FLANGED AND BOLTED HDPE MANWAY ON MAHOLES LOCATED IN ARROYO PER DETAIL SHOWN ON SHEET C-502.
2. INSTALL STANDARD TYPE "E" MANHOLE, SEE SHEET C-501.

## SEWER CURVE DATA

| NO. | DELTA | RADIUS | LENGTH |
|---|---|---|---|
| | | | |

## SEWER LINE DATA

| NO. | LENGTH | BEARING |
|---|---|---|
| 1 | 74.88' | N89°46'31"E |
| 2 | 512.05' | N89°46'31"E |
| 3 | 216.12' | S00°13'30"W |
| 4 | 66.29' | S44°50'43"W |

## DEFLECTION ANGLE

| NO. | ANGLE | DIRECTION |
|---|---|---|
| 1 | 47°27' | LEFT |
| 2 | 50°22' | LEFT |

City of Rio Rancho — City of Vision

CITY of RIO RANCHO

| NO. | DESCRIPTION | DATE | BY |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |

REVISIONS (OR CHANGE NOTICES)


WILSON & COMPANY
2600 THE AMERICAN RD. SE SUITE 100
RIO RANCHO, NM 87124
PHONE: 505-898-8021
FAX: 505-898-8501
www.wilsonco.com


MONTOYAS ARROYO SANITARY SEWER PROJECT

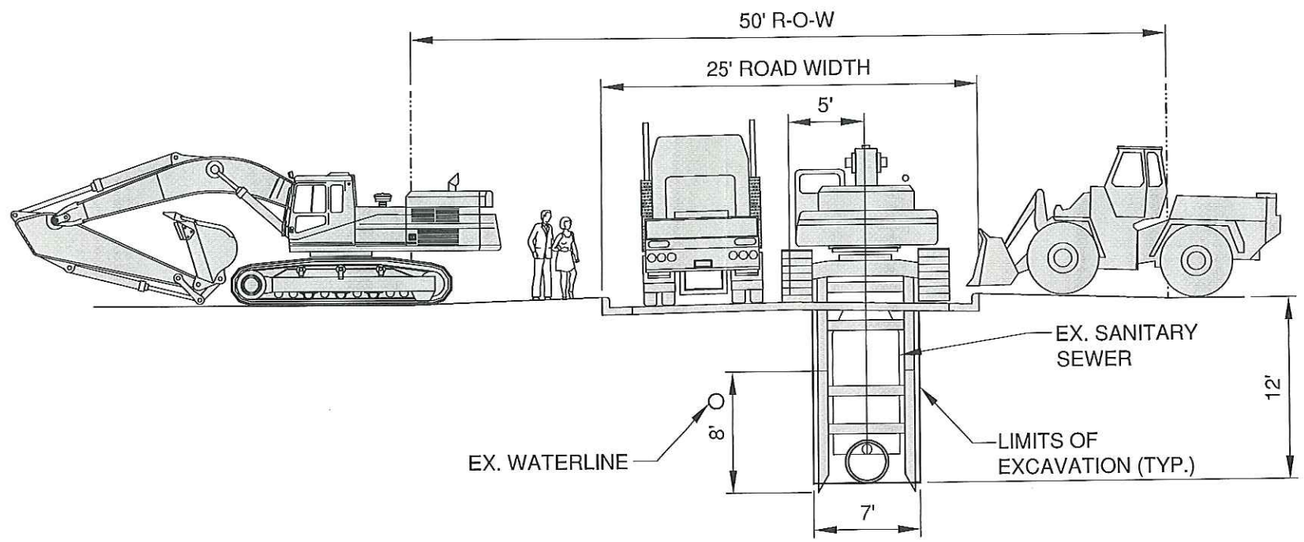
MAIN LINE
PLAN AND PROFILE
STA. 11+80.62 - STA. 20+50

JAMES D. BRAUER NEW MEXICO 15639 LICENSED PROFESSIONAL ENGINEER
10/29/11

| | |
|---|---|
| PROJECT NO. | 0720002065 |
| DESIGNED BY: | JDB |
| DRAWN BY: | STAFF |
| CHECKED BY: | JDB |
| DATE: | 10/29/11 |
| DPW CHK: | |
| SHEET | C-201 |

M:\WWW\07-200-020-11\CADD\SHEETS\PHASE 1_MONTOYAS ARROYO\02_P&P\720201 PP201.dwg

Montoyas Arroyo Sanitary Sewer Interceptor Improvement Project
City of Rio Rancho, Sandoval County, NM
Typical Detail of 12 ft Trench Excavation
Application by the City of Rio Rancho
Application No. SPA-2011-00545-ABQ
Sheet 7 of 7 January 20, 2012




NOTES:

1. 18-FT WIDTH REQUIRED FOR EQUIPMENT AND PERSONNEL MOVEMENT.
2. 12.50-FT WIDTH REQUIRED FOR EXCAVATOR.
3. SANDY CLAY SOIL TYPICAL LAYBACK IS 1.5H: 1V.
4. TRACK EXCAVATOR IS CATERPILLAR 325DL WITH MAX. DIG DEPTH OF 25.7 FT.
5. WHEELED LOADER IS A JCB 411HT.
6. PRACTICAL LIMIT FOR TRENCH BOX CONSTRUCTION IS 2 BOXES STACKED. TWO 8 FT (H) X 30 FT (L) ARE USED FOR THIS ILLUSTRATION.

RioRancho City of Vision

CITY of RIO RANCHO

| NO. | DESCRIPTION | DATE | BY |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |

REVISIONS (OR CHANGE NOTICES)

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RIO RANCHO, NM 87124
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MONTOYAS ARROYO
SANITARY SEWER
404 PERMIT APPLICATION

EXHIBIT 14
TYPICAL DETAIL
12-FT TRENCH EXCAVATION
IN RESIDENTIAL STREET
ALTERNATIVE 2

| | |
|---|---|
| PROJECT NO. 07200020-67 | |
| DESIGNED BY: | JDB |
| DRAWN BY: | JDB |
| CHECKED BY: | JDB |
| DATE: 12-2011 | |