



GENERAL NOTES

- 1. All construction shall be performed in accordance with 1) the project construction plans, 2) the project specifications, 3) the current edition of the City of Rio Rancho standard details, 4) the current edition of the NMDOT Standard Specifications for Highway and Bridge Construction, and 5) the New Mexico Standard Specifications for Public Works Construction and details, as prepared by the New Mexico Chapter, American Public Works Association and addendum. In the case of conflicting specifications, the City of Rio Rancho will determine which specification governs.
2. The Contractor agrees to assume the sole and complete responsibility for the job site conditions during the course of construction of the project, including safety of all persons and property. This requirement shall apply continuously and not be limited to normal working hours, and the Contractor shall defend, indemnify and hold the City and Engineer harmless from any and all liability, real or alleged, in connection with the performance of the work on this project, except for liability arising from the sole negligence of the City or Engineer.
3. No modifications to these plans shall be made without the written consent of the City, Engineer, and all approval signatories. The Engineer shall not be responsible for construction methods or techniques or for the prosecution of the work as shown on these plans. The Engineer shall not be held responsible for the acts or omissions of the Contractor, Subcontractors, or other persons performing any work, as shown in the project Contract Documents.
4. A Right-of-Way Use Permit and Traffic Control Plan (TCP) are required for all work performed within the public Right-of-Way. Provisions contained within Chapter 96 of the City of Rio Rancho Municipal Code shall govern. All construction signing, barricading, and channelization devices shall conform to the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). The Contractor is responsible for the setup and maintenance of all traffic control devices. Any modifications to the approved traffic control plan must be approved by the City prior to any changes being implemented. A Traffic Control Supervisor must be available for the duration of the project 24 hours a day and seven days a week. Access to residents and businesses must be maintained at all times.
5. The Contractor shall designate at least one emergency contact person, and shall provide telephone numbers where this person can be contacted at any time. This information shall be provided to the City's Project Manager.
6. The Contractor is responsible for obtaining all necessary permits from all jurisdictional authorities before the start of construction.
7. All work on this project shall be performed in accordance with applicable federal, state, and local laws, rules and regulations concerning construction safety, health, and environmental protection.
8. Existing site improvements which are damaged or displaced by the Contractor shall be removed and replaced by the Contractor at the Contractor's own expense. The work shall be approved by the City before construction of the repairs. Repairs must be accepted by the City before final payment.
9. The Contractor shall only utilize the designated staging areas for storage of all equipment and materials. The City assumes no responsibility or liability for the Contractor's equipment and material in the staging area. Security shall be the sole responsibility of the Contractor. If no staging area is designated on these plans, an offsite staging area shall be provided by the Contractor at the Contractor's expense, or the Contractor may negotiate with the City to use an onsite area.
10. Unless otherwise noted, all roadway stationing is along the centerline of the roadway right-of-way.
11. Unless otherwise noted, stationing of channels and/or pipes in drainage easements is along the centerline of the channel/pipe.
12. The Contractor shall be responsible for determining, in advance of their construction operations, if overhead utility lines, support structures, poles, guys, etc., are an obstruction to construction operations. If any obstruction is evident, the Contractor shall be responsible for coordinating with the appropriate utility owner to remove or support the utility obstruction. All costs for these requirements are incidental to the Contract.
13. Facilities which are not specifically located with actual vertical and horizontal controls on the construction documents, are shown approximate and in accordance with the best available information provided by various owners of the facilities, and supplemented by visual surface information where appropriate. Accuracy, location, and completeness of this information is the sole responsibility of the Contractor and should be verified, by any means necessary, before the initiation of construction. Should a conflict exist, the Contractor shall notify the City, Engineer, and the City's Project Manager immediately.
14. It is mandatory that a preconstruction meeting be held before commencing construction. The Contractor is responsible for contacting the City's Project Manager to determine the time and location of the preconstruction meeting.
15. At the preconstruction meeting, the Contractor shall submit a detailed construction schedule to the City's Project Manager. The schedule will be updated on a monthly basis and submitted with the monthly invoice.
16. Any work performed without the approval of the City of Rio Rancho and/or all work and materials not in conformance with the specifications is subject to removal and replacement at the Contractor's expense.
17. The Contractor shall contact NM 811 at 1-800-321-2537 for utility spots in accordance with applicable state law.
18. The Contractor shall confine their work to within the construction limits and/or public right-of-way to preserve existing vegetation, landscaping, and private property. Approval of these plans does not give or imply any permission to trespass or work on private property. Permission must be granted in writing by the Owner of that property.
19. It is the sole responsibility of the Contractor to keep the job site free from trash on a daily basis, and all materials will be neatly organized. Trash and/or non-used materials shall not be buried onsite.
20. The Contractor shall park equipment and vehicles so as not to interfere with normal activities of residents, other Contractors, or Emergency Services.
21. The Contractor will provide construction staking utilizing approved construction plans, the appropriate Right-of-Way maps, recorded plats, and City of Rio Rancho standard details. Each revision to the plans shall be recorded in the plan revision block. Plans shall include a location map with legal description(s) and location grid.
22. The Contractor shall maintain an up-to-date and accurate set of Working Record Drawings, redlined drawings, in accordance with the City of Rio Rancho's Development Process Manual (DPM) Chapter II.7. These Working Record Drawings shall reflect all approved changes to the original plans throughout the construction process. At the completion of construction, the Contractor shall submit the Working Record Drawings as outlined in the City of Rio Rancho's DPM Chapter II.7. Also, the Contractor shall ensure that all submittals, permitting, and construction activities are in accordance with the City of Rio Rancho's DPM and applicable ordinances. All costs for these requirements are incidental to the Contract.
23. No work shall be performed in a floodplain without written authorization from the City's Floodplain Manager.
24. Any work performed in a drainage way, channel, arroyo, or floodplain must be protected by the means identified in the Temporary Erosion Control and Sediment plans accepted by the City.
25. Vibration monitoring will be at the Contractor's discretion and incidental to the Contract.

SOILS

- 1. Unless otherwise specified subgrade soils and structural fill materials shall be compacted to the following percentages of the ASTM D-1557 maximum density.

Table with 2 columns: MATERIALS and PERCENT (%) COMPACTION. Rows include STRUCTURAL FILL IN THE BUILDING AREA (95%), SUB BASE FOR SLAB SUPPORT (95%), MISCELLANEOUS BACKFILL BELOW STRUCTURAL FILL OR ROAD (95%), MISCELLANEOUS BACKFILL BELOW UNPAVED, NON-BUILDING AREAS (90%), ROAD SUB GRADE (95%), SIDEWALK SUB GRADE (95%), CURB AND GUTTER SUBGRADE (95%), and ARROYOS (90%).

ROADWAY GENERAL NOTES

- 1. No paving construction activities shall be started until all underground utilities within the roadway are completed, tested, and approved. All water valve boxes and electrical, telephone, television, and sewer manholes in the construction area shall be adjusted to finished grade.
2. All signs, barricades, channelization devices, pavement markings, sign frames and erection of such devices shall conform to the requirements of the "Manual on Uniform Traffic Control Devices for streets and highways" (MUTCD), current edition.
3. All street striping altered or destroyed during construction shall be replaced by the Contractor to match the original conditions (i.e. type, spacing) at the location prior to construction, or as shown in this plan set.
4. Street grades shall be restored by the Contractor to the existing grades unless otherwise directed by the City of Rio Rancho. Smooth transitions shall be made between existing pavement which remains in place and pavement which is replaced. When abutting new pavement to existing, saw cut back existing pavement to a neat, straight line as required to remove any broken or cracked pavement. Refer to standard drawing PS-02.
5. The location of all valves and manholes must be referenced at all times by the Contractor during construction and made accessible daily upon completion of all paving activities.

EROSION CONTROL/ENVIRONMENTAL PROTECTION/STORM WATER POLLUTION PREVENTION PLAN

- 1. The Contractor shall be responsible for fulfilling all necessary National Pollutant Discharge Elimination System (NPDES) requirements including, but not limited to, obtaining an NPDES permit before construction, filing out the Notice of Intent (NOI) application, and filing out the Notice of Termination (NOT) application. The Contractor shall also be responsible for the implementation of an inspection reports for the Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall submit the SWPPP with the proposed construction staging area and temporary sanitary facilities clearly shown. Any check dams, silt fences, or other Best Management Practices (BMP) that are required in the approved SWPPP shall be included in and are incidental to the SWPPP bid amount.
2. The Contractor is required to keep a current copy of the SWPPP at the construction site or at an easily accessible location so that it can be made available at the time of an onsite inspection or upon request by the EPA; a state, tribal, or local agency approving storm water management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).
3. The Contractor shall conform to all City, County, State and Federal dust and erosion control regulations. The Contractor shall prepare and obtain any necessary dust or erosion control permits from the regulatory agencies.
4. The Contractor shall either promptly remove any material excavated within the public Right-of-Way or install BMPs according to NPDES requirements to prevent discharge of excavated material within the public Right-of-Way during a rain or wind event. All costs for these requirements are incidental to the Contract.
5. The Contractor shall implement the approved SWPPP and ensure that no soil erodes from the site into public Right-of-Way or onto private property.
6. The Contractor shall mitigate erosion of temporary or permanent dirt swales by installing BMPs identified in the approved SWPPP in the swales perpendicular to the direction of flow, and at intervals as specified in the SWPPP.
7. Construction areas shall be watered for dust control in compliance with government ordinances. The Contractor shall be responsible for locating and supplying water as required. Watering, as required for construction and dust control, shall be considered incidental to construction and no measurement or payment shall be made therefore.
8. Any areas disturbed by construction and not covered by landscaping or an impervious surface shall be re-vegetated with native grass seeding. When construction activities cease and earth disturbing activities will not resume within 14 days, stabilization measures must be initiated. Unless indicated otherwise on these plans or on the landscaping plan, native grass seeding shall be in accordance with Section 1012 of the New Mexico Standard Specifications for Public Works Construction, APWA NM Chapter, current edition.
9. All waste products from the construction site, including items designated for removal, construction waste, construction equipment waste products (oil, gas, tires, etc.) garbage, grubbing, excess cut material, vegetative debris, etc. shall be appropriately disposed of offsite at no additional cost to the City. It shall be the Contractor's responsibility to obtain permits required to haul or dispose of waste products. It shall be the Contractor's responsibility to ensure that the waste disposal site complies with government regulations regarding the environment, endangered species, and archaeological resources.
10. The Contractor shall be responsible for the cleanup and reporting of spills of hazardous materials associated with the construction site. Hazardous materials include gasoline, diesel fuel, motor oil, solvents, chemicals, paints, etc. which may be a threat to the environment. The Contractor shall report the discovery of past or present spills to the New Mexico Environment Department Emergency Response Team at (505) 827-9329.
11. The Contractor shall comply with all applicable regulations concerning surface and underground water. Contact with surface water by construction equipment and personnel shall be minimized. Equipment maintenance and refueling operations shall be performed in an environmentally safe manner in compliance with government regulations.
12. Where storm inlets are susceptible to inflow of silt or debris from construction activities, protection shall be provided on their upstream side utilizing BMPs according to NPDES requirements. All costs for these requirements are incidental to the Contract.
13. Storm Water Pollution Prevention Plans (SWPPP) and accompanying Federal EPA Administrative Procedures shall meet the City of Rio Rancho guidelines and procedures outlined in the current addition of the New Mexico State Highway and Transportation Department Storm Water Management Guidelines for Construction and Industrial Activities Manual.
14. The Contractor shall provide adequate means for cleaning trucks and/or other equipment of mud before entering public streets. It is the Contractor's responsibility to clean streets and take whatever measures are necessary to ensure that all roads are maintained in a clean, mud and dust-free condition at all times.
15. No work may begin in an arroyo or other drainage way until authorization has been provided by the U.S. Army Corp. of Engineers and the City of Rio Rancho Flood Plain Manager.

WATER GENERAL NOTES

- 1. For water connections to existing lines, the Contractor shall notify the City's Project Manager a minimum of 48 hours before the connection.
2. Compression joints may be used on copper service lines. Flared joints shall be used when connecting to plastic lines.
3. Valve boxes shall be brought to surface elevation upon completion of the surface course of pavement. Concrete collars shall be constructed to surface elevations.
4. Flushing of water lines shall be metered and reported to the City's Project Manager on a weekly basis. Preference for disposal is (1) on available land surface or (2) in storm sewers. Disposal methods shall be discussed with the City's Project Manager.
5. Flushing, disinfection and testing of water lines shall be coordinated with the City's Project Manager.
6. It will be the Contractor's sole responsibility to protect and maintain, in service, all existing utilities. The Contractor shall adequately support and protect existing utilities affected by the Contractor's trenching activity. In the event that existing utilities are damaged by the Contractor's operations, the Contractor shall arrange for and coordinate prompt repair by the respective utility and shall bear the cost of the repairs.
7. All water lines must have tracer wire and marker balls per City of Rio Rancho standard drawings.
8. The City of Rio Rancho shall approve material submittals before construction.
9. Before any water line installation, the following conditions will occur:
a) The water line route will be cleared and grubbed and then graded to plan elevation
b) The water line will be staked when outside an area with curb and gutter.
10. The City of Rio Rancho Utilities Operations Division shall be the only personnel authorized to operate existing valves, fire hydrants, etc. for construction purposes. All shutoffs must be coordinated with the City's Project Manager seven (7) days before proposed shutoff and shall comply with the accepted shutoff plan.
11. The Contractor is responsible for testing of all lines, including but not limited to, hydrostatic and bacteria testing, disinfecting, and flushing. The Contractor is responsible for the testing of the water line system before acceptance by the City. Testing shall be performed to demonstrate the functionality of the system. All costs for these requirements are incidental to the Contract.
12. For non-hot tap water connections to existing lines, the Contractor shall prepare and submit to the City's Project Manager, for acceptance, a water shutoff plan 48 hours before the connection is to take place.
13. The Contractor shall mark the top of the curb with a "W" for water lines following service installations and before final acceptance.
14. POTABILITY TESTING SHALL BE COLLECTED AND DELIVERED BY A CERTIFIED THIRD PARTY TESTER, APPROVED BY THE CITY, TO A TESTING LABORATORY CERTIFIED BY THE NEW MEXICO ENVIRONMENT DEPARTMENT - DRINKING WATER BUREAU.
15. No bricks shall be used to adjust manholes to finished grade.

Table with 6 columns: Type of Facility, Name, Address, Phone, Email. Rows include Century Link, Unite Private Networks (UPN), NM GAS, PNM, Sparklight, Zayo Fiber Solutions, and City of Rio Rancho.

ADA GENERAL NOTES

- 1. These drawings provide guidance for compliance with the current public right of way accessibility guidelines (PROWAG). These standards shall apply to all new and altered sidewalks.
2. Surfaces shall be stable, firm, and slip resistant. Sidewalk and curb ramp surfaces shall provide consistent slopes within each section.
3. All street striping altered or destroyed during construction shall be replaced by the Contractor to All broom finishes shall be perpendicular to the direction of pedestrian travel.
4. A vertical change of 1/4 inch (6mm) or less is allowed, if between 1/4 inch and 1/2 inch (6mm and 13mm), then it needs to be beveled 2:1. Changes greater than 1/2 inch shall be ramped.
5. Openings or cracks in sidewalk surfaces shall not exceed 1/2 inch (13mm). Elongated openings should be placed so that the long dimension is perpendicular or diagonal to the dominant direction of travel.
6. The least possible curb ramp slope shall be used. Curb ramps running slope shall not exceed 12:1. Where existing terrain is steep, curb ramps shall not exceed 15 feet in length.
7. Provide a flush transition between curb ramps, sidewalks, gutter, and edge of pavement, free of drainage lip, abrupt grade changes, drop-offs, or any surface irregularities. A 5% (20:1) or flatter transition taper shall be provided from the street to the gutter for curb ramps locations (this may require special treatment of the edge of OGFC) when diagonal (not in line with crosswalks) curb ramps are necessary. A 2% (50:1) transition or "lower landing" shall be provided. The gutter running slope (flow line) shall not exceed 2% measured along the bottom of the curb ramp.
8. Curb ramps shall be located to provide the most direct route of travel across the traffic lanes.
9. Two directional (in line with the crosswalks) curb ramps per corner are used in order to provide short and direct crossings for the user.
10. Sign posts, utility poles, fire hydrants, traffic signals standards, light poles, pull boxes, meters, valves, etc., shall not be located in the curb ramp including side flares and landings.
11. In order to better accommodate conditions in the field, the contractor shall obtain final approval of curb ramp locations from the project manager and the city manager and the city traffic engineer. When necessitated by existing physical conditions, Alternate curb ramps must be submitted to the project manager for approval by the city traffic engineer.
12. Landings shall be a minimum of 48" x 48". Slopes shall not exceed 2% (50:1) in all directions.
13. Detectable warnings are required at all street intersections, signalized driveways, commercial driveways 30' wide or greater, and marked mid-block crosswalks.
14. Concrete Procedural note: Before scheduling delivery of concrete, contractor shall meet with City Inspector/PM to ensure the concrete formwork is constructed to dimensions and grades shown on plans and meets PROWAG, 2011 Technical Design Criteria. Calibrate 24" electronic digital level with Contractor's electronic digital level prior to verifying measurements. Verify measurements meet requirements or require correction of all discrepancies before scheduling of concrete to ensure the finished concrete will meet PROWAG. When all measurements meet requirements then the inspector shall permit concrete pour. Repeat the procedure after concrete pour to ensure the curb ramp meets PROWAG compliance. Final acceptance of a curb ramp does not occur until the final inspection of the project. This procedure shall be considered incidental to the installation of the ADA curb ramps.
15. The contractor shall submit a proposed work plan for pedestrian improvements to the project engineer for review and approval prior to initiating this work. This plan shall include the method proposed to maintain pedestrian access to businesses, schools, hospitals, buildings, etc. throughout the pedestrian improvements construction in particular. The contractor, at minimum, shall maintain a 48" clear path for pedestrians so as to meet ADA accessibility requirements. All temporary pedestrian facilities implemented during construction shall comply with ADA standards.
16. Sidewalk and curb ramp cross slope is recommended to be constructed for a cross slope of 1.5% typical, but shall not exceed 2.0% cross slope on the pedestrian access route.

Table with 4 columns: NO., DATE, DESCRIPTION, REVISIONS (OR CHANGE NOTICES). Rows 1-7.

Designed By: HUITT-ZOJARS, INC. 333 Rio Rancho Drive NE, Suite 101, Rio Rancho, New Mexico 87124. Phone (505) 892-5141, Fax (505) 862-3289. CITY OF RIO RANCHO

GENERAL NOTES, INDUSTRIAL PARK, ROAD & UTILITY IMPROVEMENTS, RIO RANCHO, NEW MEXICO

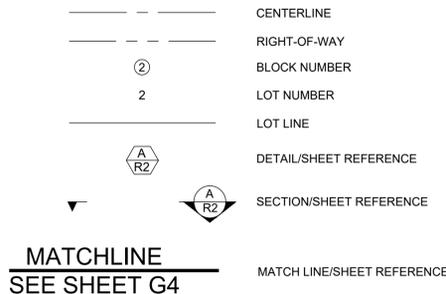


PROJECT NO. R309554.01, DESIGNED BY: GM, DRAWN BY: STAFF, CHECKED BY: RJD, DATE: FEB 2020, DPW CHK: -, SHEET: 1-2

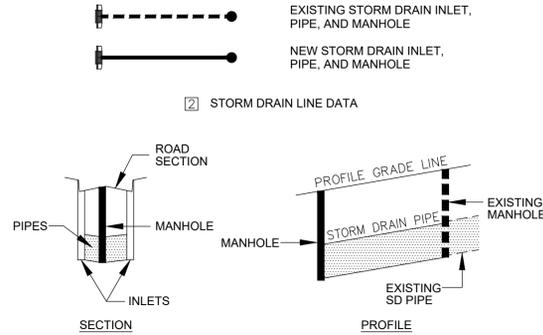




GENERAL



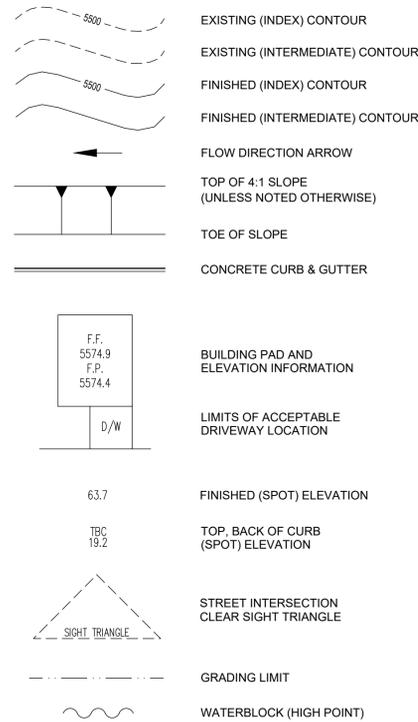
STORM DRAIN



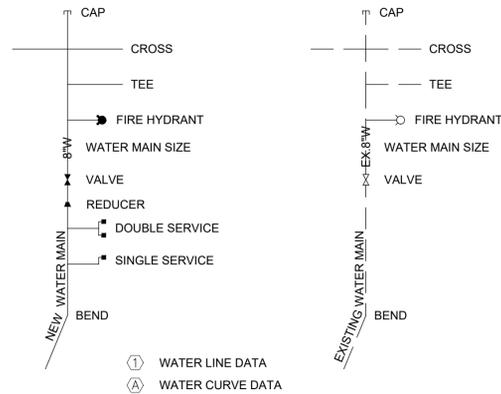
ABBREVIATIONS

AP	ANALYSIS POINT
@	AT
BC	BEGIN CURVE
BCR	BEGIN CURB RETURN
BK	BOOK
BLDG	BUILDING
BM	BENCH MARK
BOP	BEGINNING OF PROJECT
BVC	BEGIN VERTICAL CURVE
BW	BASE OF WALL
CATV	CABLE TV LINE
CB	CATCH BASIN
CF	CURB FACE
CG	CURB AND GUTTER
CIP	CAST IRON PIPE
CL	CHAIN LINK
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CONC	CONCRETE
CORR	CITY OF RIO RANCHO
CY	CUBIC YARDS
DE, DUE	DRAINAGE UTILITY EASEMENT
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
Δ	DELTA
E	ELECTRIC
EA	EACH
EB	ELECTRIC BOX
EC	END CURVE
ECR	END CURB RETURN
EL, ELEV	ELEVATION
EOP	END OF PROJECT
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EW	EACH WAY
EX, EXIST	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCE MAIN
FOC	FACE OF CURB
FP	FINISHED PAD
G	GAS
GM	GAS METER
GV	GATE VALVE
HORIZ	HORIZONTAL
INT	INTERSECTION
INV	INVERT
INV EL	INVERT ELEVATION
LF	LINEAR FEET
LP	LIGHT POLE
LT	LEFT
MH	MANHOLE
NG	NATURAL GROUND
OC	ON CENTER
PB	PULL BOX
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PG	PAGE
PGL	PROFILE GRADE LINE PER TYPICAL SECTION
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
R, RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REF	REFERENCE
RT	RIGHT
R/W, ROW	RIGHT-OF-WAY
S	SLOPE
SAS	SANITARY SEWER LINE
SD	STORM DRAIN
SF	SQUARE FEET
STA	STATION
STD	STANDARD
SW	SIDEWALK
SY	SQUARE YARDS
T	TANGENT
TA	TOP OF ASPHALT
TAC	TOP OF ASPHALT CURB
TBC	TOP BACK OF CURB
TC	TOP OF CONCRETE
TEL	TELEPHONE LINE, RISER OR BOX
TP	TOP OF PIPE
TRANS	TRANSVERSE
TW	TOP OF WALL
TYP	TYPICAL
UE	UNDERGROUND ELECTRICAL LINE
UT	UNDERGROUND TELEPHONE LINE
VC	VERTICAL CURVE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
W, WL	WATERLINE
WM	WATER METER
WSEL	WATER SURFACE ELEVATION
WV	WATER VALVE

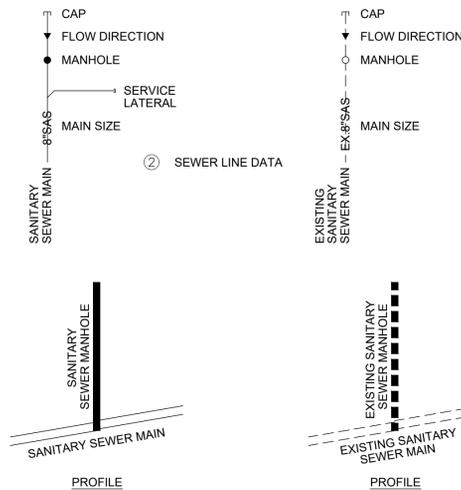
GRADING & DRAINAGE



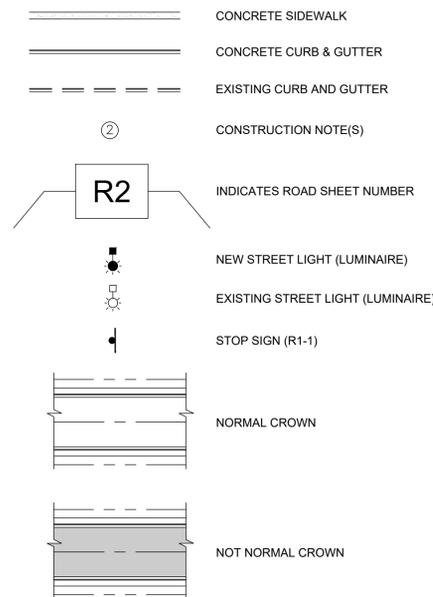
WATER



SANITARY SEWER



ROADS



NO.	DATE	BY	REVISIONS (OR CHANGE NOTICES)
7	-	-	-
6	-	-	-
5	-	-	-
4	-	-	-
3	-	-	-
2	-	-	-
1	-	-	-
NO.	-	-	-

Designed By: **HUIT-ZOJARS**
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Designed For: **CITY OF RIO RANCHO**

ABBREVIATIONS

INDUSTRIAL PARK

ROAD & UTILITY IMPROVEMENTS

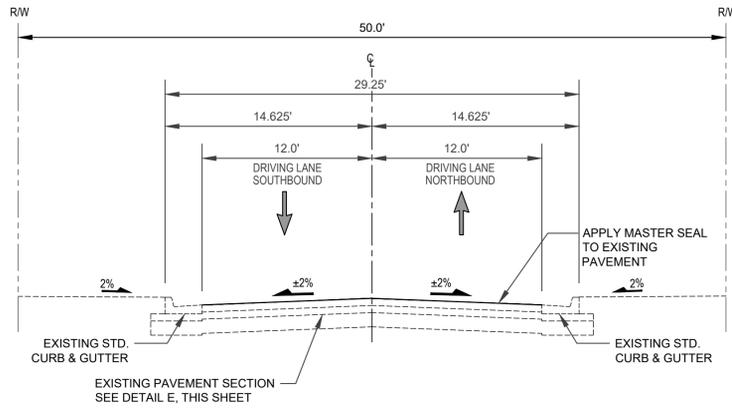
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 1-3

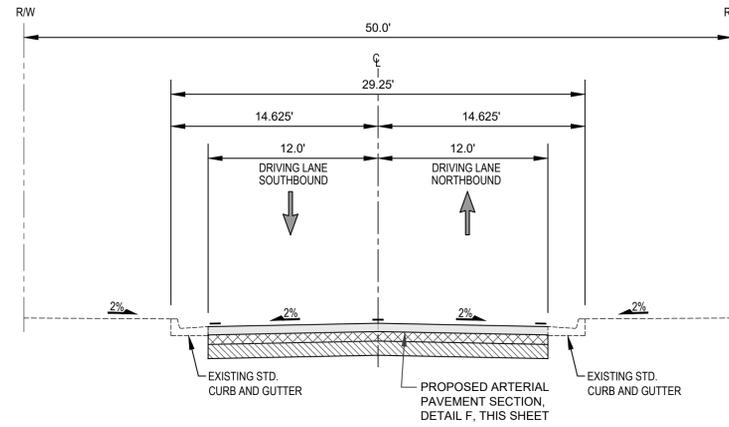


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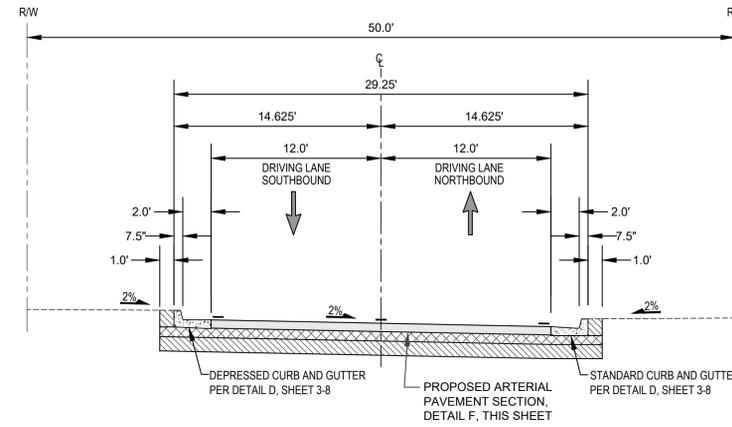
TYPICAL SECTION (EXISTING)

INDUSTRIAL PARK LOOP NE
SCALE: 1"=6' **A**



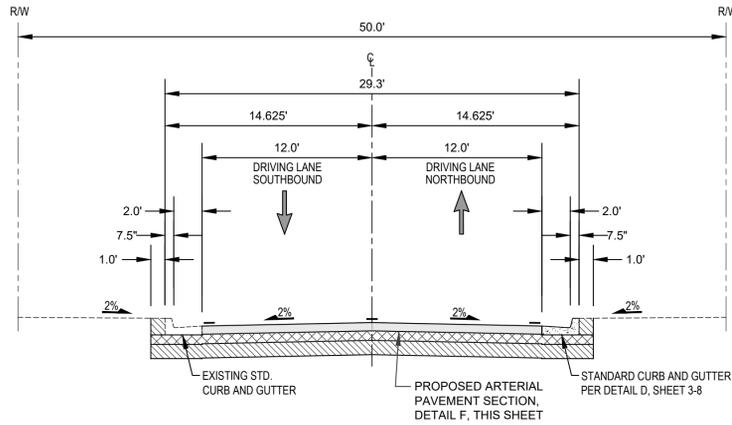
TYPICAL SECTION

INDUSTRIAL PARK LOOP NE
ENTERPRISE RE NE
COMMERSE PL
SCALE: 1"=6' **B**



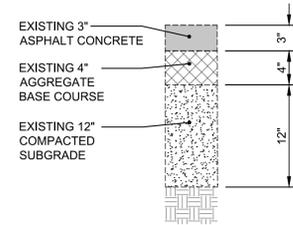
TYPICAL SECTION

INDUSTRIAL PARK LOOP NE
STA 29+75 TO STA 30+50
STA 32+25 TO STA 34+50
STA 37+50 TO STA 39+00
SCALE: 1"=6' **C**



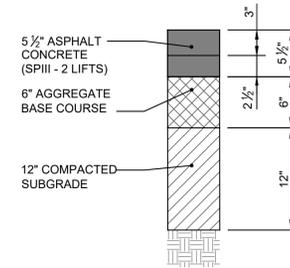
TYPICAL SECTION

INDUSTRIAL PARK LOOP NE
ENTERPRISE RE NE
COMMERSE PL
SCALE: 1"=6' **D**



EXISTING PAVEMENT SECTION

SCALE: 1"= 10' **E**



(PROPOSED ARTERIAL SECTION)

PROPOSED PAVEMENT SECTION

SCALE: 1"= 10' **F**

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

Designed By:
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Designed For:
CITY OF RIO RANCHO

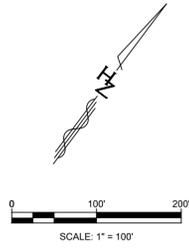
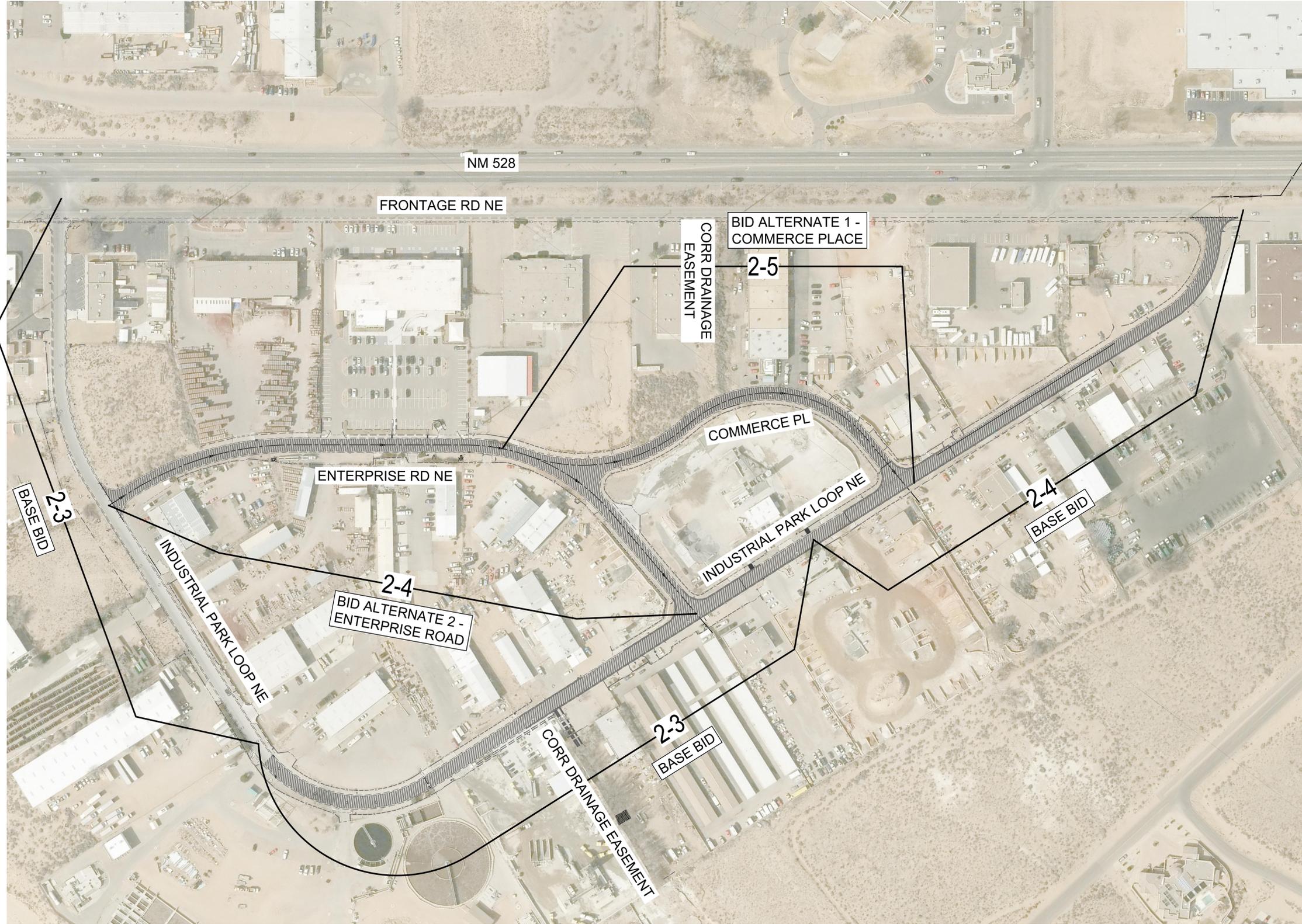
TYPICAL SECTIONS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: VKL
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -

SHEET:
2-1





NO.	DESCRIPTION	DATE	BY
7			
6			
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3			
2			
1			

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 Designed For: **CITY OF RIO RANCHO**

COMPOSITE DEMOLITION PLAN
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: VKL
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -

SHEET:
2-2



Plotted: 2/23/2020 9:44:24 AM. By: Demelle, Robert
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NO.	DESCRIPTION	DATE	BY
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NO.			

Designed By: **HUIT-ZOJARS**
 HUIT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

Designed For: **CITY OF RIO RANCHO**

DEMOLITION PLAN
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

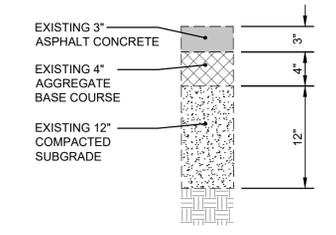
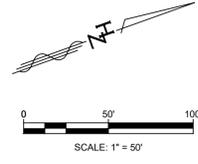
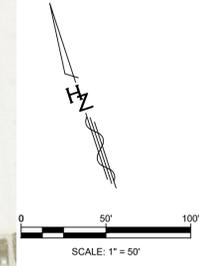


PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 2-3



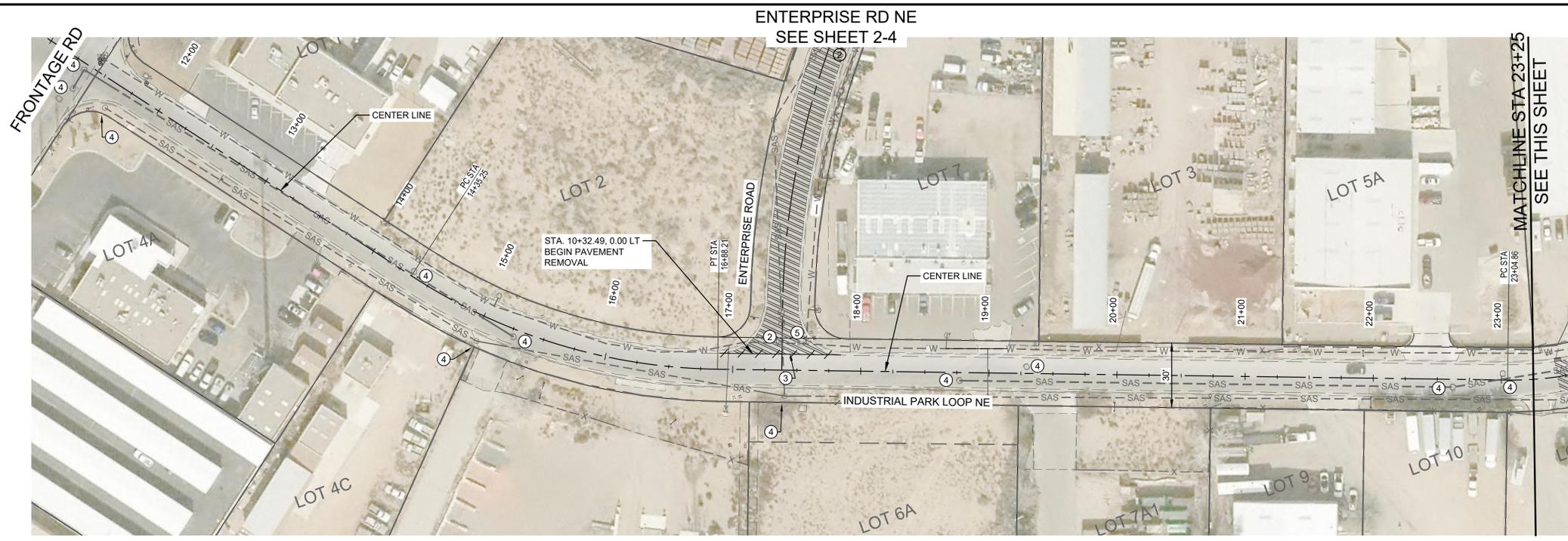
- DEMOLITION NOTES**
- REMOVE EXISTING PAVEMENT AND BASE COURSE FULL DEPTH APPROXIMATELY 7 INCHES. MILLINGS SHALL BE 1.5" OR SMALLER.
 - REMOVE EXISTING ASPHALT.
 - NEAT CUT EXISTING ASPHALT.
 - PROTECT EXISTING MANHOLE IN PLACE.
 - PROTECT EXISTING WATER VALVE IN PLACE.
 - VALLEY GUTTER TO REMAIN. DO NOT DISTURB.
 - REMOVE SIDEWALK RAMP.

- LEGEND**
- EX. RIGHT-OF-WAY
 - ==== EX. CURB & GUTTER
 - //// EX. SURFACING REMOVAL
 - ⊕ EX. SIGN
 - ⊕ EX. SEWER MANHOLE

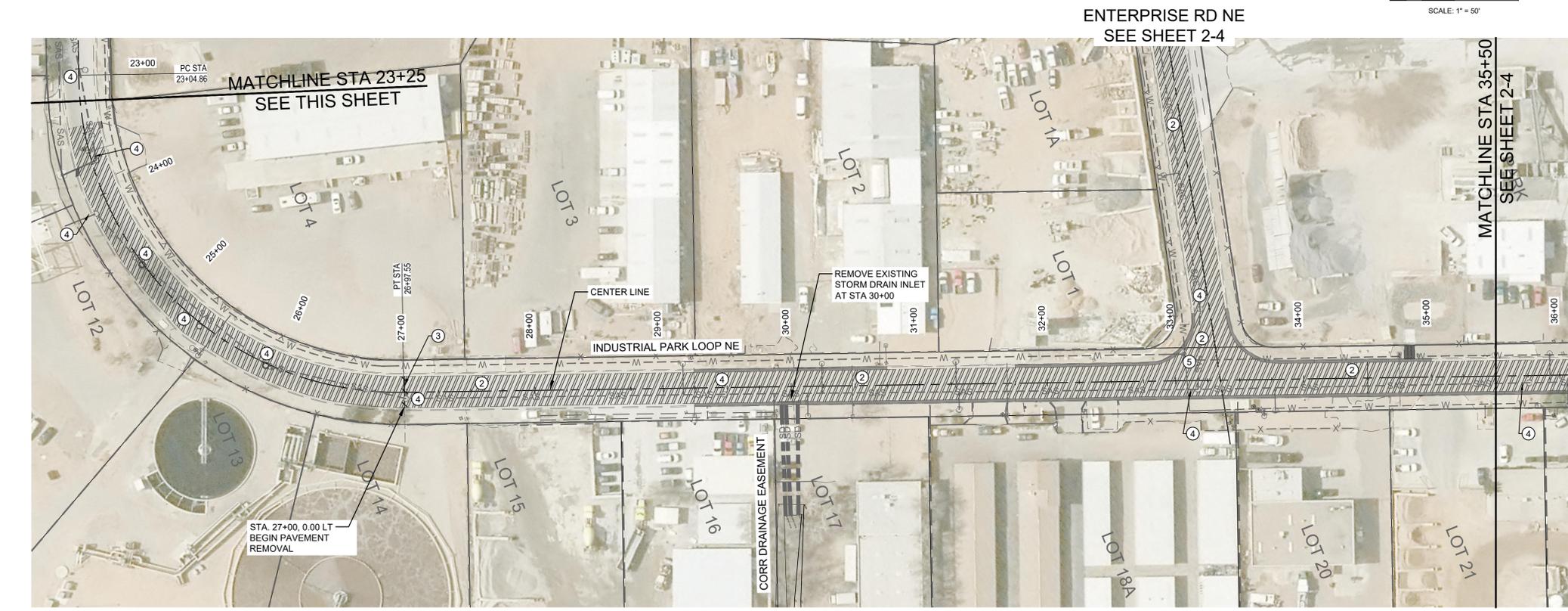


* REMOVAL OF SURFACING ITEMS INCLUDES 3" HMA THICKNESS, PAID AS S.Y. - IN. HAUL ASPHALT MILLINGS TO CITY PUBLIC WORKS DEPARTMENT STOCKPILE, LOCATED AT KIM ROAD AND IDALIA ROAD. 4" BASE COURSE AND 4" SUBGRADE MATERIAL TO BE STOCKPILED AT CONTRACTOR SELECTED LOCATION, AND TO BE UTILIZED FOR FILL MATERIAL FOR 8' x 4' CBC ALIGNMENT AS SHOWN ON SHEET 10-4.

EXISTING PAVEMENT REMOVAL SECTION
 SCALE: 1" = 10'



INDUSTRIAL PARK LOOP NE



INDUSTRIAL PARK LOOP NE

Printed: 2/23/2020 9:45:09 AM. By: Demeule, Robert
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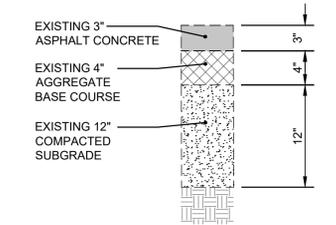
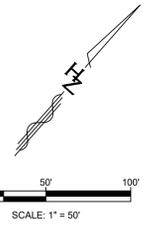


- DEMOLITION NOTES**
- ① REMOVE EXISTING PAVEMENT AND BASE COURSE FULL DEPTH APPROXIMATELY 7 INCHES. MILLINGS SHALL BE 1.5" OR SMALLER.
 - ② REMOVE EXISTING ASPHALT.
 - ③ NEAT CUT EXISTING ASPHALT.
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 - ⑤ PROTECT EXISTING WATER VALVE IN PLACE.
 - ⑥ VALLEY GUTTER TO REMAIN. DO NOT DISTURB.
 - ⑦ REMOVE SIDEWALK RAMP.

- LEGEND**
- EX. RIGHT-OF-WAY
 - EX. CURB & GUTTER
 - ▨ EX. SURFACING REMOVAL
 - ⊕ EX. SIGN
 - ⊙ EX. SEWER MANHOLE

NO.	DESCRIPTION	DATE	BY
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INDUSTRIAL PARK LOOP NE



* REMOVAL OF SURFACING ITEMS INCLUDES 3" HMA PAID AS S.Y. - IN. HAUL ASPHALT MILLINGS TO CITY PUBLIC WORKS DEPARTMENT STOCKPILE, LOCATED AT KIM ROAD AND IDALIA ROAD. 4" BASE COURSE AND 4" SUBGRADE MATERIAL TO BE STOCKPILED AT CONTRACTOR SELECTED LOCATION, AND TO BE UTILIZED FOR FILL MATERIAL FOR 8' x 4' CBC ALIGNMENT AS SHOWN ON SHEET 10-4.

EXISTING PAVEMENT REMOVAL SECTION
SCALE: 1" = 10'

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Designed For: **CITY OF RIO RANCHO**

DEMOLITION PLAN
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

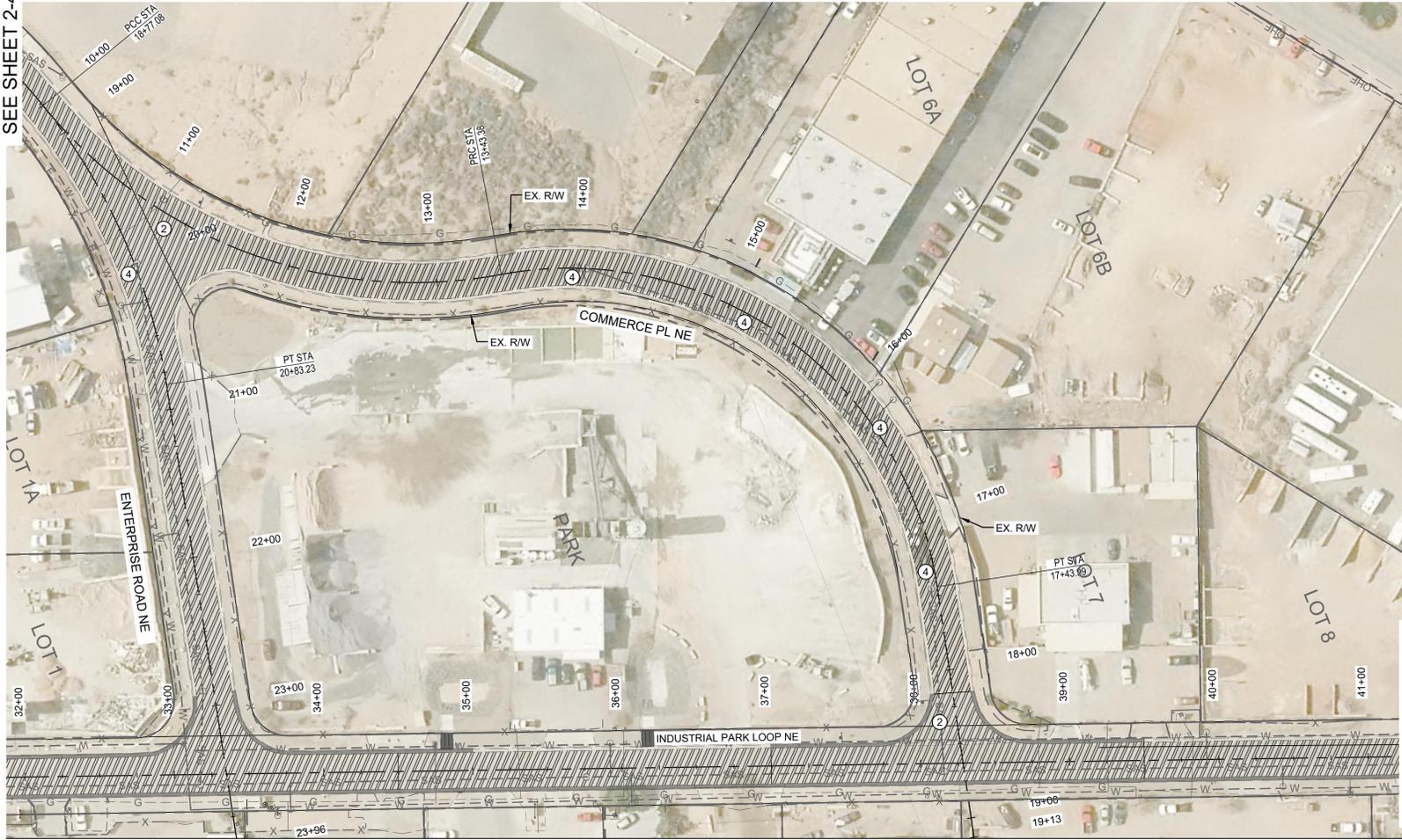


PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 2-4

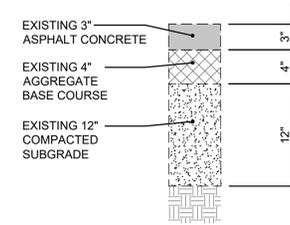
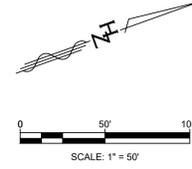


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Last Saved: 2/23/2020 9:41:21 AM, rdemelle

ENTERPRISE RD NE
SEE SHEET 2-4



COMMERCE PLACE NE



* REMOVAL OF SURFACING ITEMS INCLUDES 3" HMA PAID AS 5.7' - IN. HAUL ASPHALT MILLINGS TO CITY PUBLIC WORKS DEPARTMENT STOCKPILE, LOCATED AT KIM ROAD AND IDALIA ROAD. 4" BASE COURSE AND 4" SUBGRADE MATERIAL TO BE STOCKPILED AT CONTRACTOR SELECTED LOCATION, AND TO BE UTILIZED FOR FILL MATERIAL FOR 8' x 4' CBC ALIGNMENT AS SHOWN ON SHEET 10-4.

EXISTING PAVEMENT REMOVAL SECTION

SCALE: 1"= 10'

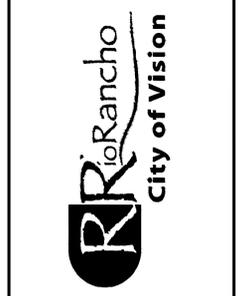


DEMOLITION NOTES

- 1 REMOVE EXISTING PAVEMENT AND BASE COURSE FULL DEPTH APPROXIMATELY 7 INCHES. MILLINGS SHALL BE 1.5" OR SMALLER.
- 2 REMOVE EXISTING ASPHALT.
- 3 NEAT CUT EXISTING ASPHALT.
- 4 PROTECT EXISTING MANHOLE IN PLACE.
- 5 PROTECT EXISTING WATER VALVE IN PLACE.
- 6 VALLEY GUTTER TO REMAIN. DO NOT DISTURB.
- 7 REMOVE SIDEWALK RAMP.

LEGEND

- EX. RIGHT-OF-WAY
- ===== EX. CURB & GUTTER
- ||||| EX. SURFACING REMOVAL
- ▲ EX. SIGN
- EX. SEWER MANHOLE



NO.	DESCRIPTION	DATE	BY
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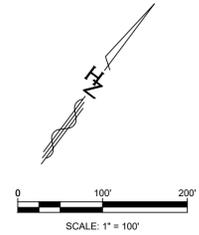
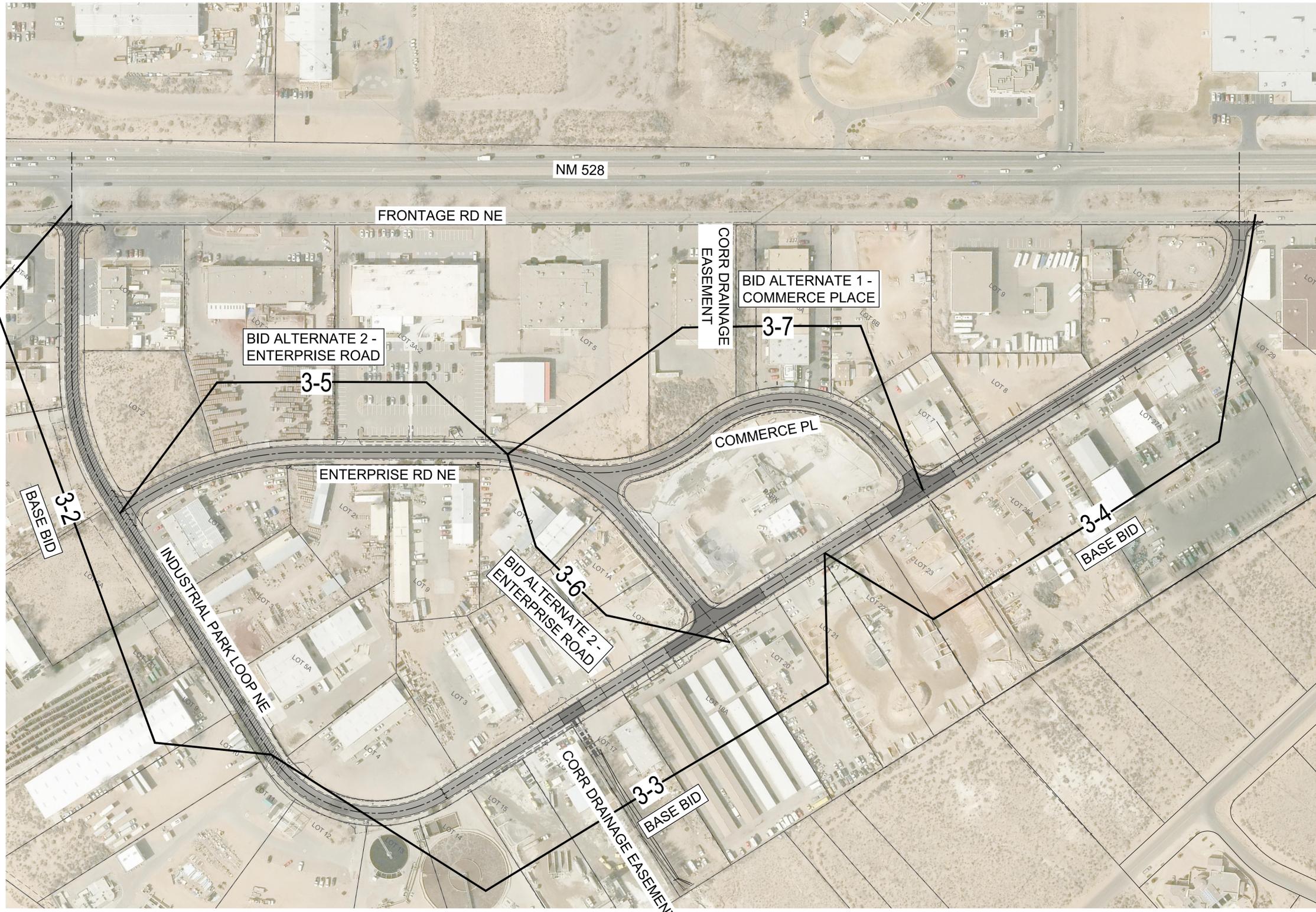
Designed For: **CITY OF RIO RANCHO**

DEMOLITION PLAN
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 2-5





LEGEND

- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- MASTER SEAL
- FULL RECONSTRUCTION
- EX. SIGN
- EX. SEWER MANHOLE
- REMOVE/ REPLACE CURB & GUTTER
- SAWCUT EX. PAVEMENT

NO.	DESCRIPTION	DATE	BY
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Designed By: **HUITT-ZOJARS**
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Designed For: **CITY OF RIO RANCHO**

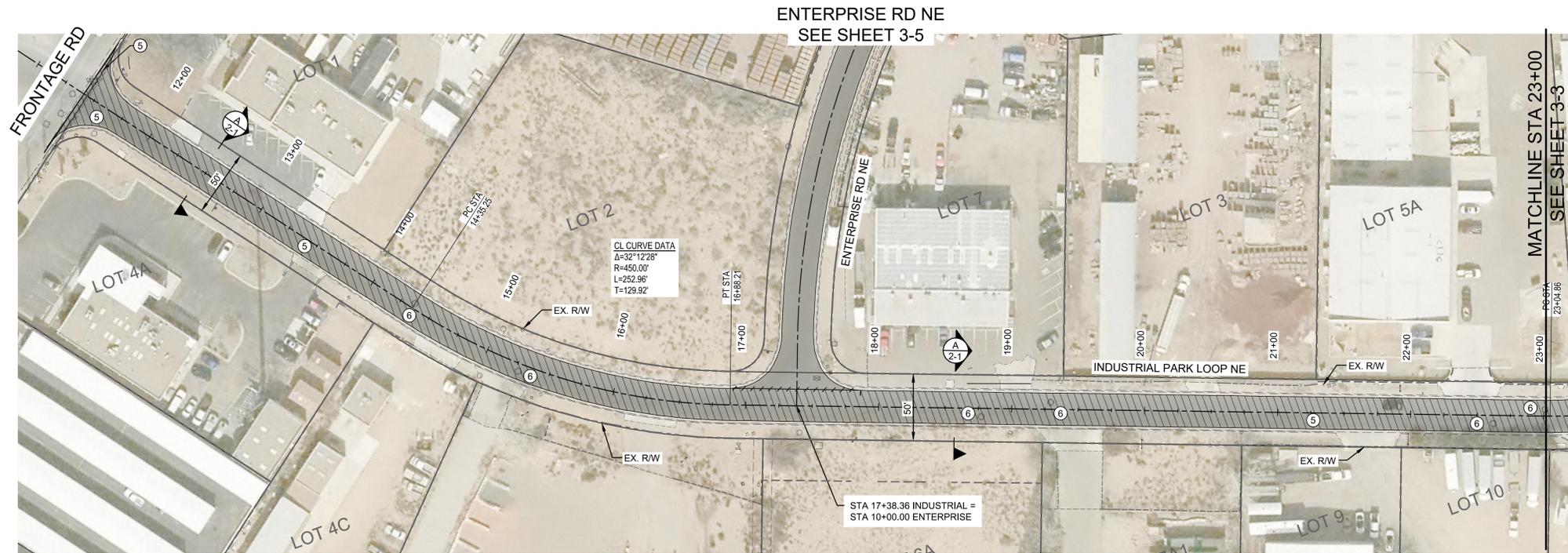
COMPOSITE ROAD PLAN
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: VKL
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 3-1

Plotted: 2/22/2020 10:52:28 AM By: Demelle, Robert
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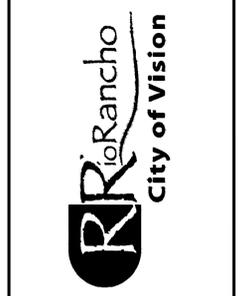
INDUSTRIAL PARK LOOP NE

PAVING CONSTRUCTION NOTES

- ① CONSTRUCT PAVEMENT SECTION - ARTERIAL STREET PER DETAIL A, SHEET 3-8.
- ② REMOVE AND REPLACE DAMAGED CURB & GUTTER FROM NEAREST JOINT TO NEAREST JOINT
- ③ CONSTRUCT CROWN PAVEMENT SECTION PER TYPICAL SECTION B, SHEET 2-1.
- ④ CONSTRUCT SUPER-ELEVATED CROWN PAVEMENT SECTION, PER TYPICAL SECTION C, SHEET 2-1.
- ⑤ TREAT PAVEMENT SECTION WITH MASTER SEAL.
- ⑥ CONTRACTOR SHALL ADJUST MANHOLE TO SURFACE COARSE OF PAVEMENT. CIRCULAR CONCRETE COLLARS SHALL BE CONSTRUCTED TO SURFACE ELEVATION.
- ⑦ WATER VALVES SHALL BE ADJUSTED TO SURFACE COURSE OF PAVEMENT.
- ⑧ CONSTRUCT CROWN TRANSITION.
- ⑨ REMOVE AND REPLACE CURB & GUTTER.
- ⑩ REMOVE AND REPLACE CURB & GUTTER TO END OF RETURN.

LEGEND

- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- MASTER SEAL
- FULL RECONSTRUCTION
- EX. SIGN
- EX. SEWER MANHOLE
- REMOVE/ REPLACE CURB & GUTTER
- SAWCUT EX. PAVEMENT



NO.	DESCRIPTION (OR CHANGE NOTICES)	DATE	BY
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Designed By:
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 333 Rio Rancho Drive NE, Suite 101
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Designed For:
CITY OF RIO RANCHO

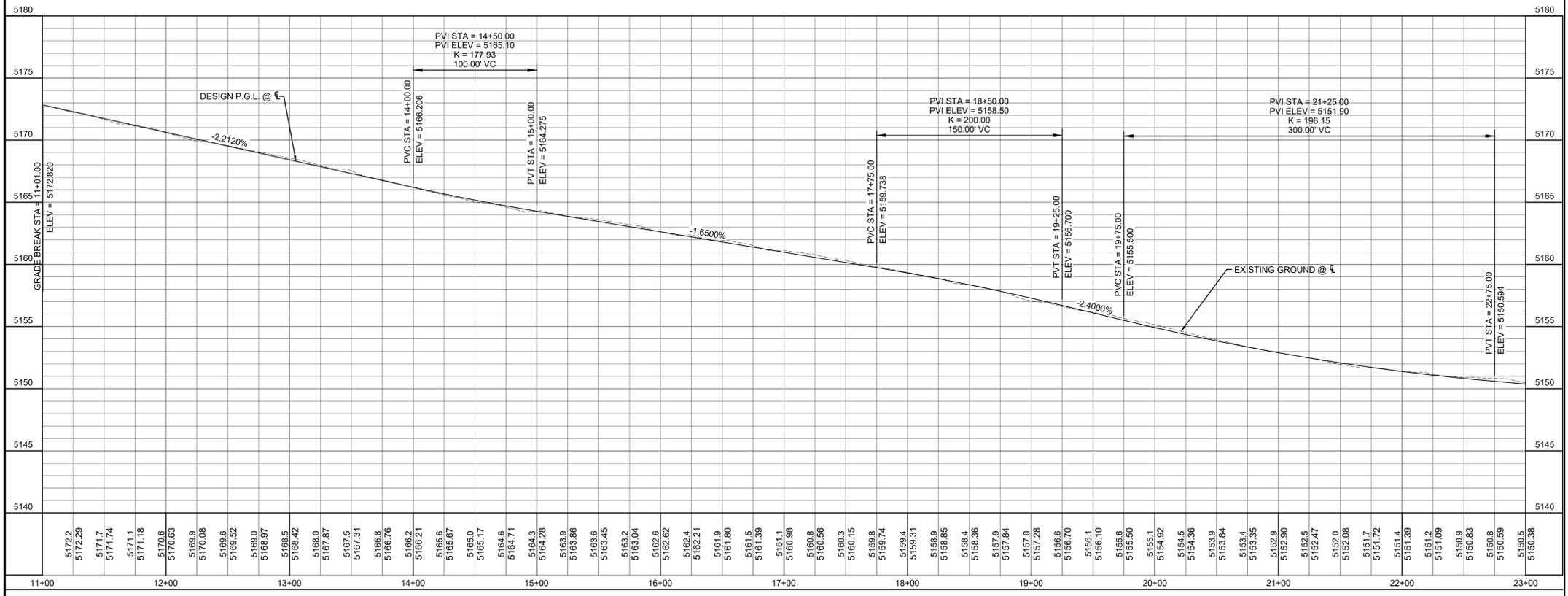
INDUSTRIAL LOOP RD PLAN & PROFILE
PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

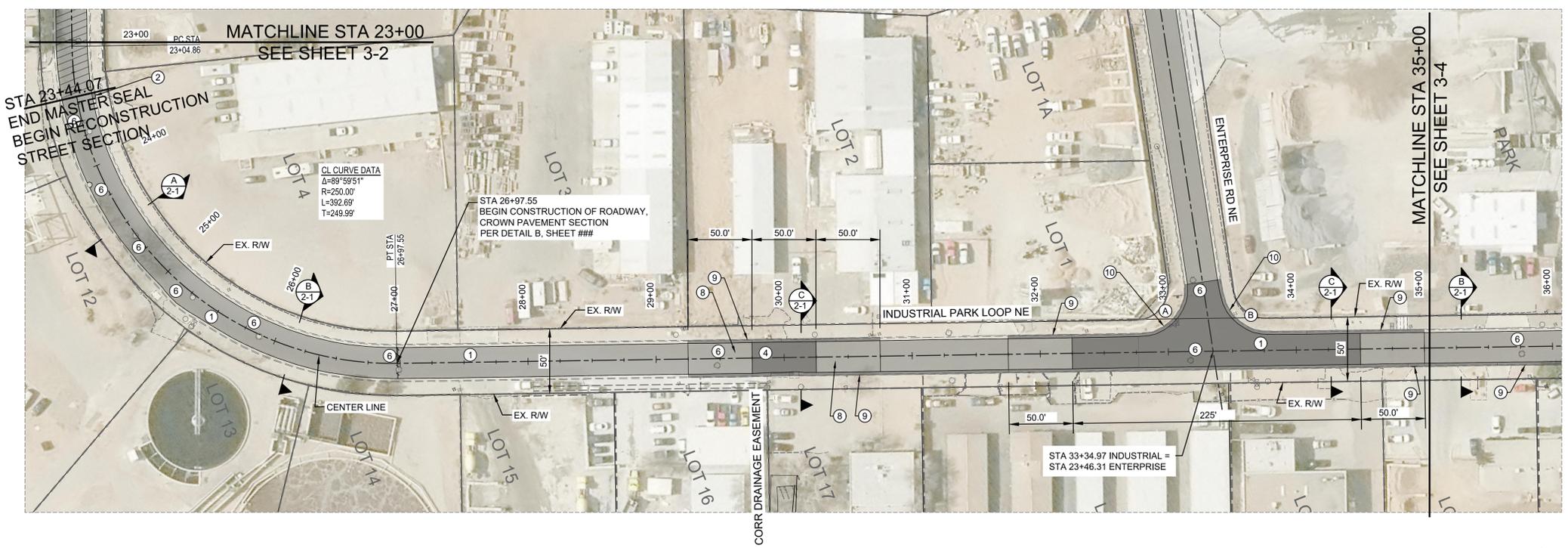


PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: VKL
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -
 SHEET: **3-2**

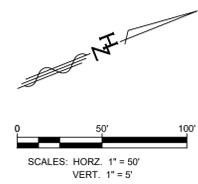


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INDUSTRIAL PARK LOOP NE



PAVING CONSTRUCTION NOTES

- ① CONSTRUCT PAVEMENT SECTION - ARTERIAL STREET PER DETAIL A, SHEET 3-8.
- ② REMOVE AND REPLACE DAMAGED CURB & GUTTER FROM NEAREST JOINT TO NEAREST JOINT
- ③ CONSTRUCT CROWN PAVEMENT SECTION PER TYPICAL SECTION B, SHEET 2-1.
- ④ CONSTRUCT SUPER-ELEVATED CROWN PAVEMENT SECTION, PER TYPICAL SECTION C, SHEET 2-1.
- ⑤ TREAT PAVEMENT SECTION WITH MASTER SEAL.
- ⑥ CONTRACTOR SHALL ADJUST MANHOLE TO SURFACE COARSE OF PAVEMENT. CIRCULAR CONCRETE COLLARS SHALL BE CONSTRUCTED TO SURFACE ELEVATION.
- ⑦ WATER VALVES SHALL BE ADJUSTED TO SURFACE COURSE OF PAVEMENT.
- ⑧ CONSTRUCT CROWN TRANSITION.
- ⑨ REMOVE AND REPLACE CURB & GUTTER.
- ⑩ REMOVE AND REPLACE CURB & GUTTER TO END OF RETURN.

LEGEND

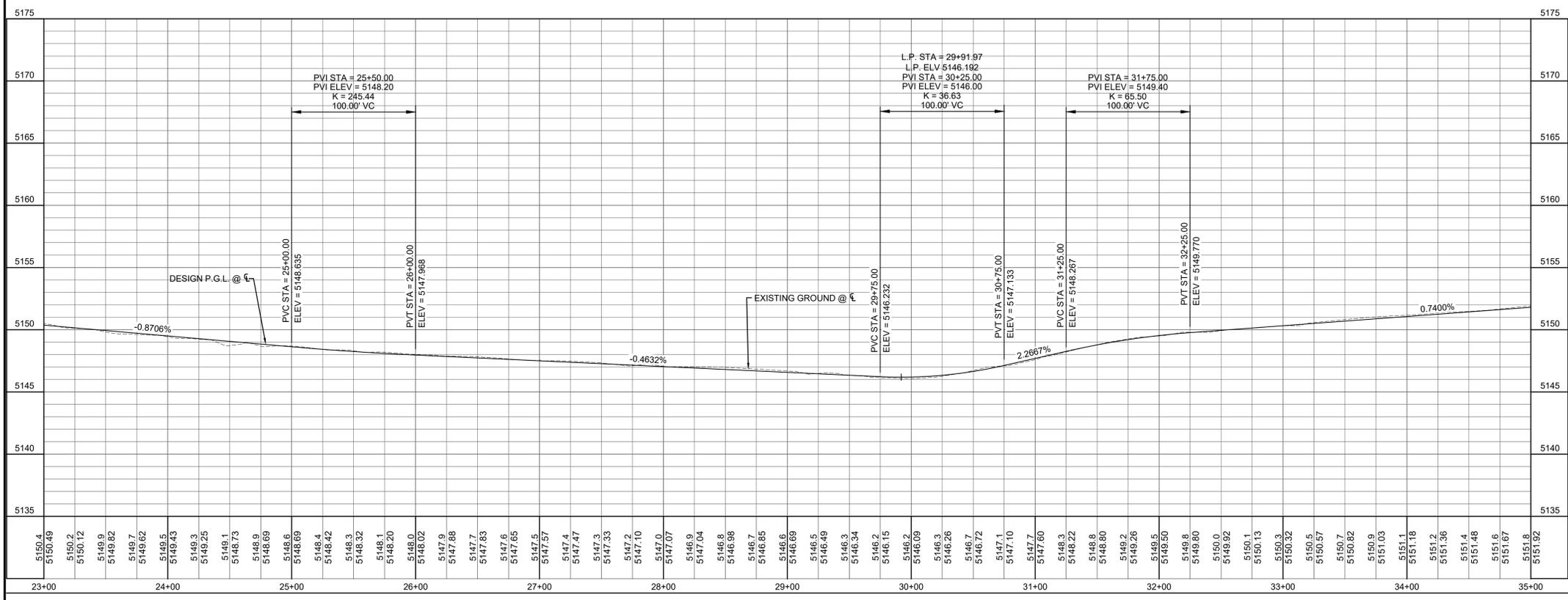
- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- MASTER SEAL
- FULL RECONSTRUCTION
- EX. SIGN
- EX. SEWER MANHOLE
- REMOVE/ REPLACE CURB & GUTTER
- SAWCUT EX. PAVEMENT

(A) BEGIN CURB RETURN
 STA. = 33+12.58, 54.48' LT.
 END CURB RETURN
 STA. = 32+77.92, 14.63' LT.

PT.	FL. ELEV.	RETURN TBC
1	51.41	CURVE DATA
2	51.18	Δ = 97°58'03"
3	50.94	R = 35.00'
RET.	50.69	T = 40.24'
	50.44	L = 59.84'

(B) BEGIN CURB RETURN
 STA. = 33+78.14, 14.63' LT.
 END CURB RETURN
 STA. = 33+43.48, 44.77' LT.

PT.	FL. ELEV.	RETURN TBC
1	51.10	CURVE DATA
2	51.08	Δ = 82°01'57"
3	51.10	R = 35.00'
RET.	51.19	T = 30.44'
	51.33	L = 50.11'



Designed By:
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 HUITT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
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Designed For:
CITY OF RIO RANCHO

INDUSTRIAL PARK LOOP PLAN & PROFILE
PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: VKL
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -

SHEET: **3-3**



Plotted: 2/22/2020 10:53:02 AM. By: Demuele, Robert
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 Last Saved: 2/22/2020 11:15:30 AM. cmrhansen



NO.	DESCRIPTION	DATE	BY
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Designed By:
HUITT-ZOJARS
 HUITT-ZOJARS, INC.
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 Rio Rancho, New Mexico 87124
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Designed For:
CITY OF RIO RANCHO

INDUSTRIAL PARK LOOP PLAN & PROFILE
PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: VKL
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -
 SHEET: **3-4**



PAVING CONSTRUCTION NOTES

- CONSTRUCT PAVEMENT SECTION - ARTERIAL STREET PER DETAIL A, SHEET 3-8.
- REMOVE AND REPLACE DAMAGED CURB & GUTTER FROM NEAREST JOINT TO NEAREST JOINT
- CONSTRUCT CROWN PAVEMENT SECTION PER TYPICAL SECTION B, SHEET 2-1.
- CONSTRUCT SUPER-ELEVATED CROWN PAVEMENT SECTION, PER TYPICAL SECTION C, SHEET 2-1.
- TREAT PAVEMENT SECTION WITH MASTER SEAL.
- CONTRACTOR SHALL ADJUST MANHOLE TO SURFACE COARSE OF PAVEMENT. CIRCULAR CONCRETE COLLARS SHALL BE CONSTRUCTED TO SURFACE ELEVATION.
- WATER VALVES SHALL BE ADJUSTED TO SURFACE COURSE OF PAVEMENT.
- CONSTRUCT CROWN TRANSITION.
- REMOVE AND REPLACE CURB & GUTTER.
- REMOVE AND REPLACE CURB & GUTTER TO END OF RETURN.

LEGEND

- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- MASTER SEAL
- FULL RECONSTRUCTION
- EX. SIGN
- EX. SEWER MANHOLE
- REMOVE/ REPLACE CURB & GUTTER
- SAWCUT EX. PAVEMENT

Ⓒ BEGIN CURB RETURN
 STA. = 38+06.58, 54.23' LT.
 PT. ELEV. RETURN TBC

RET.	ELEV.	CURVE DATA
1	54.41	Δ = 97°33'15"
2	54.25	R = 35.00'
3	54.09	T = 39.95'
RET.	53.93	L = 59.59'

 END CURB RETURN
 STA. = 37+71.88, 14.63' LT.

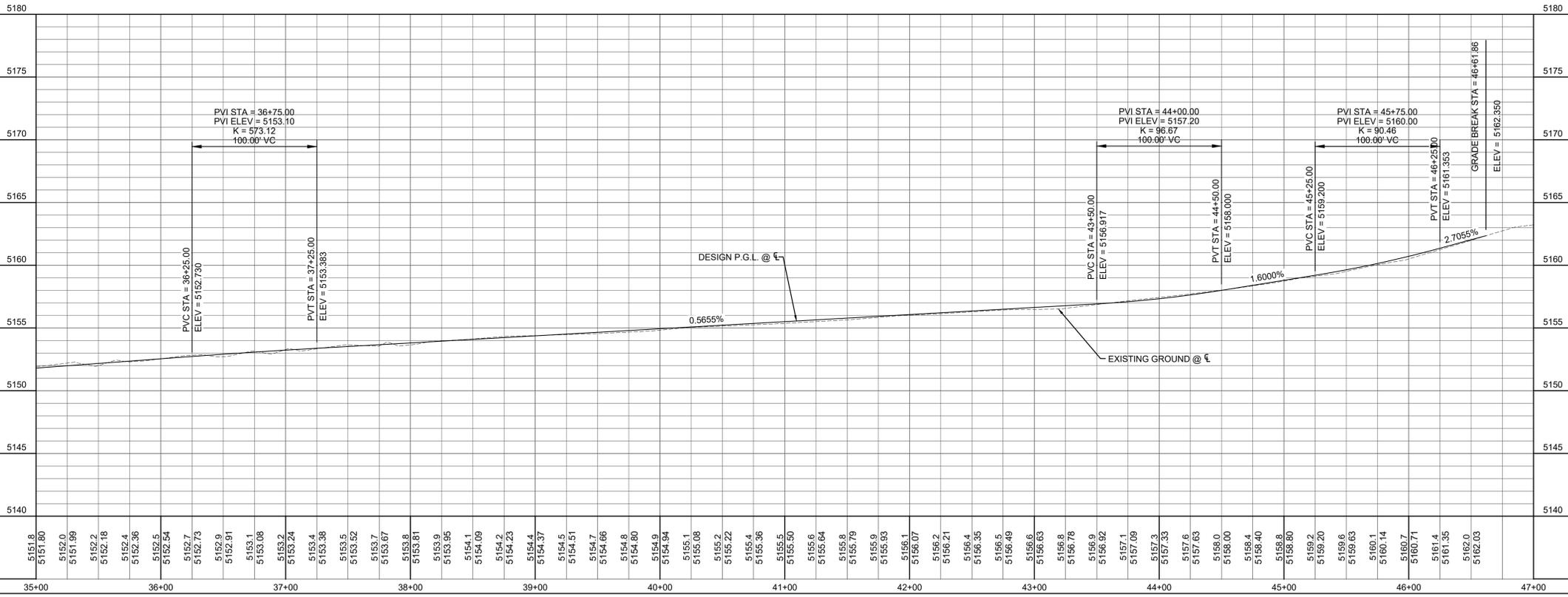
Ⓓ BEGIN CURB RETURN
 STA. = 38+72.00, 14.63' LT.
 PT. ELEV. RETURN TBC

RET.	ELEV.	CURVE DATA
1	54.49	Δ = 82°28'45"
2	54.37	R = 35.00'
3	54.38	T = 30.67'
RET.	54.45	L = 50.36'

 END CURB RETURN
 STA. = 38+37.31, 45.02' LT.



INDUSTRIAL PARK LOOP NE



Plotted: 2/22/2020 10:53:22 AM. By: Demelle, Robert
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 Last Saved: 2/22/2020 11:18:30 AM. cmrhansen



PAVING CONSTRUCTION NOTES

- ① CONSTRUCT PAVEMENT SECTION - ARTERIAL STREET PER DETAIL A, SHEET 3-8.
- ② REMOVE AND REPLACE DAMAGED CURB & GUTTER FROM NEAREST JOINT TO NEAREST JOINT
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- ⑧ CONSTRUCT CROWN TRANSITION.

LEGEND

- EX. RIGHT-OF-WAY
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- EX. SEWER MANHOLE
- REMOVE/ REPLACE CURB & GUTTER
- SAWCUT EX. PAVEMENT

NO.	DESCRIPTION	DATE	BY
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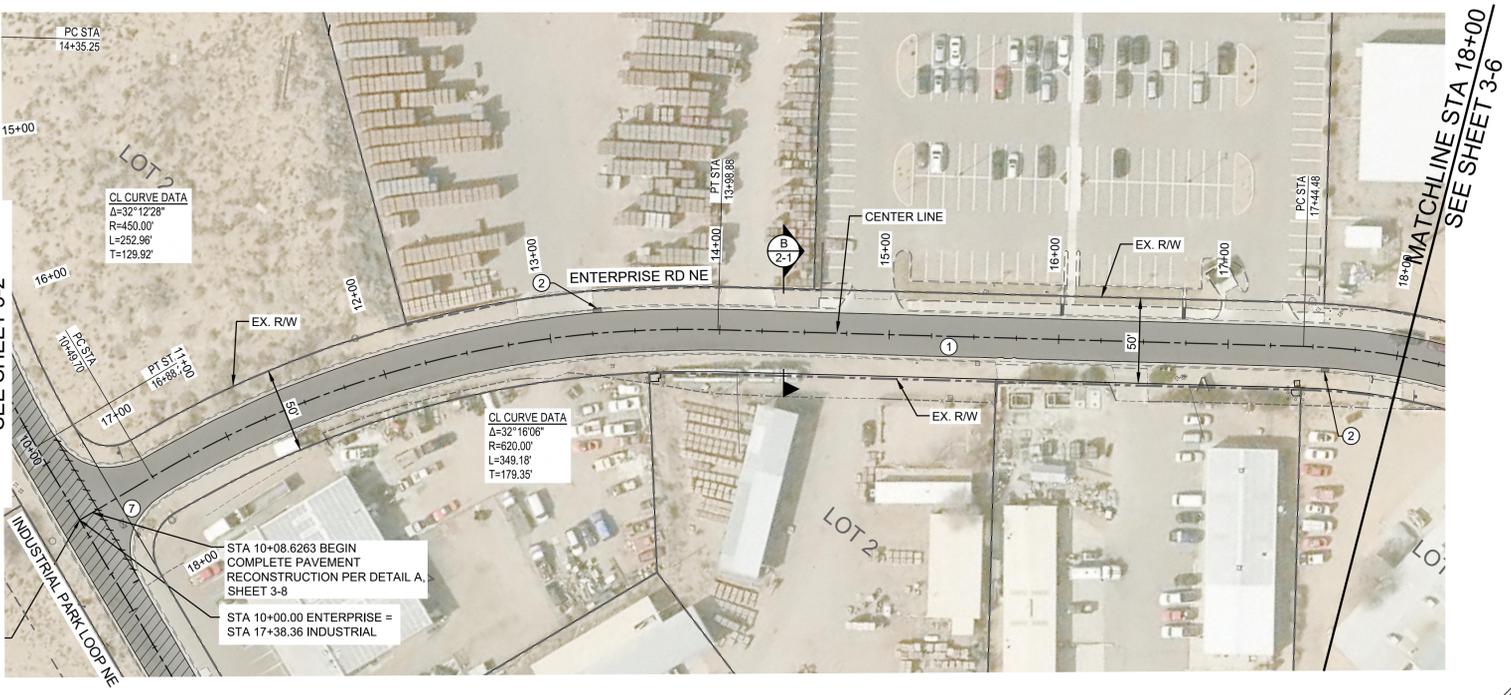
Designed By:
HUIT-ZOJARS
 HUIT-ZOJARS, INC.
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 Phone (505) 892-5141 Fax (505) 892-3259

Designed For:
CITY OF RIO RANCHO

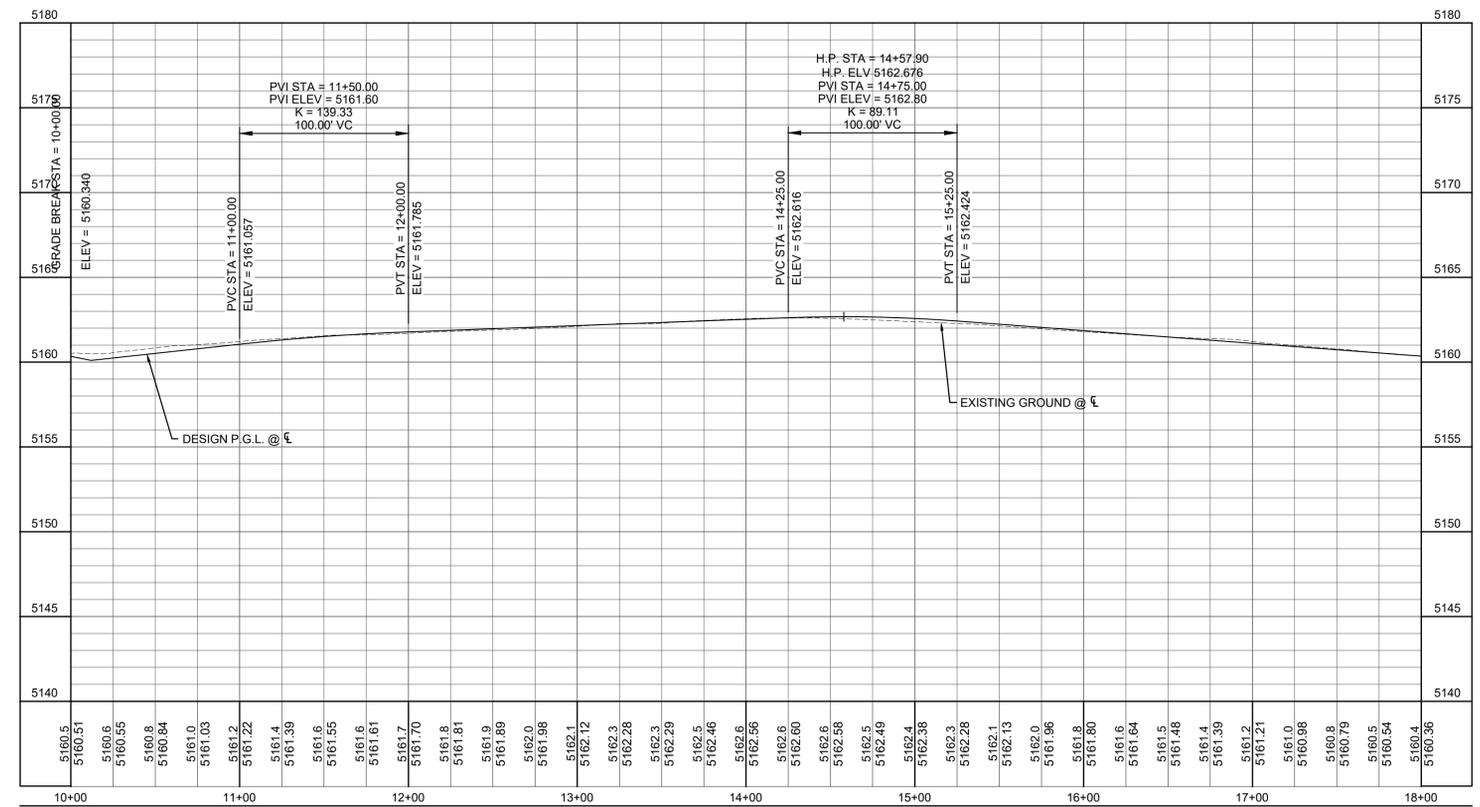
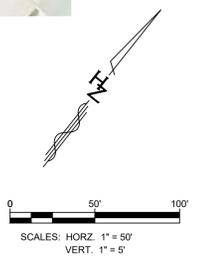
ENTERPRISE ROAD PLAN & PROFILE
PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
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 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -
SHEET: 3-5



ENTERPRISE ROAD NE



Plotted: 2/22/2020 10:53:36 AM. By: Demelle, Robert
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PAVING CONSTRUCTION NOTES

- ① CONSTRUCT PAVEMENT SECTION - ARTERIAL STREET PER DETAIL A, SHEET 3-8.
- ② REMOVE AND REPLACE DAMAGED CURB & GUTTER FROM NEAREST JOINT TO NEAREST JOINT
- ③ CONSTRUCT CROWN PAVEMENT SECTION PER TYPICAL SECTION B, SHEET 2-1.
- ④ CONSTRUCT SUPER-ELEVATED CROWN PAVEMENT SECTION, PER TYPICAL SECTION C, SHEET 2-1.
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- ⑦ WATER VALVES SHALL BE ADJUSTED TO SURFACE COURSE OF PAVEMENT.
- ⑧ CONSTRUCT CROWN TRANSITION.

LEGEND

- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- MASTER SEAL
- FULL RECONSTRUCTION
- EX. SIGN
- EX. SEWER MANHOLE
- REMOVE/ REPLACE CURB & GUTTER
- SAWCUT EX. PAVEMENT

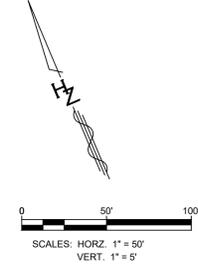
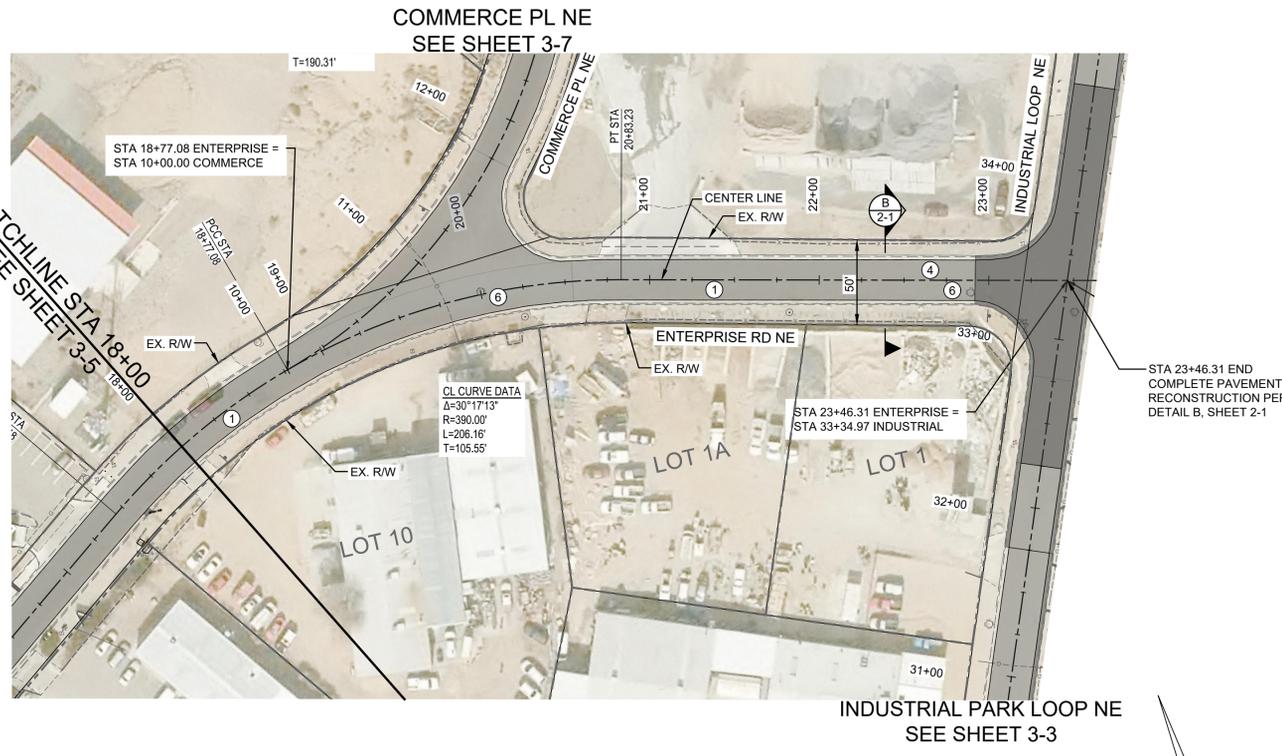
Designed By:
HUITT-ZOJARS
 HUITT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

Designed For:
CITY OF RIO RANCHO

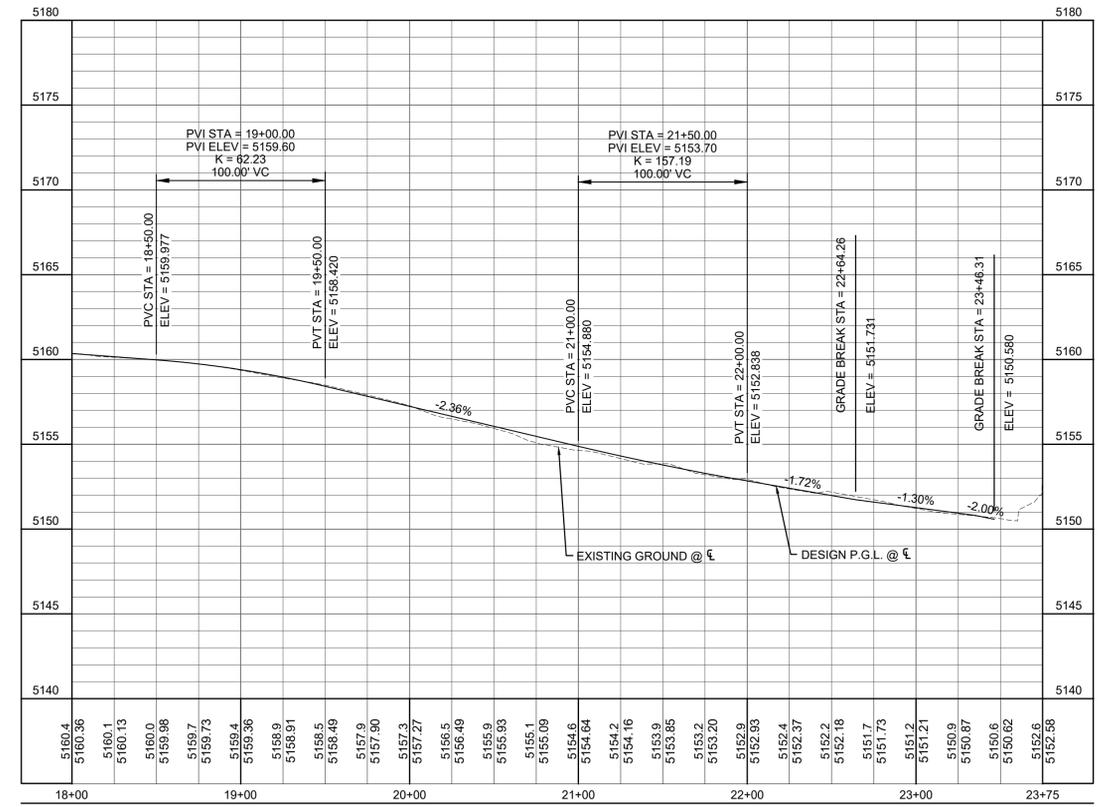
ENTERPRISE ROAD PLAN & PROFILE
PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: VKL
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -
 SHEET:
3-6

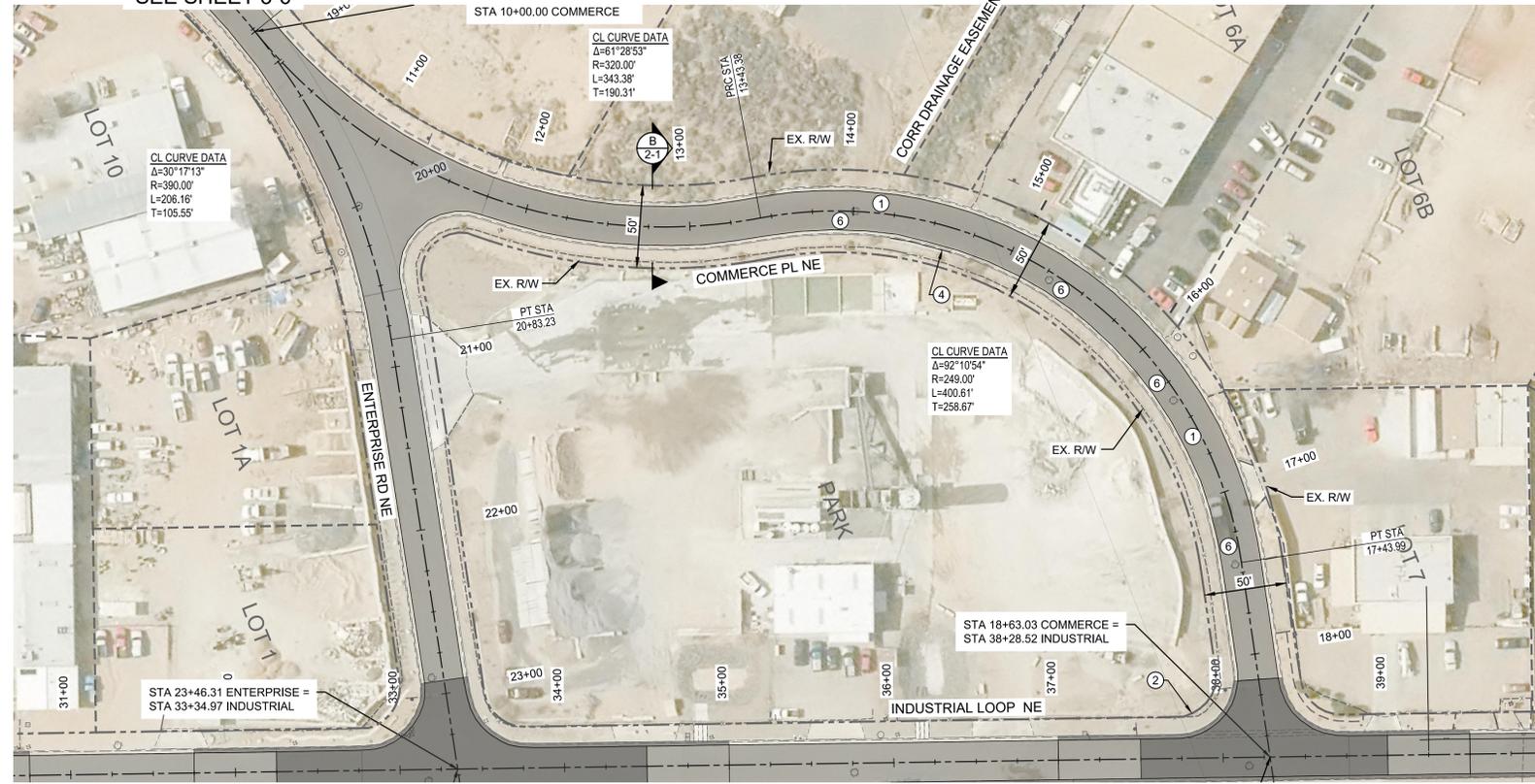


ENTERPRISE ROAD NE



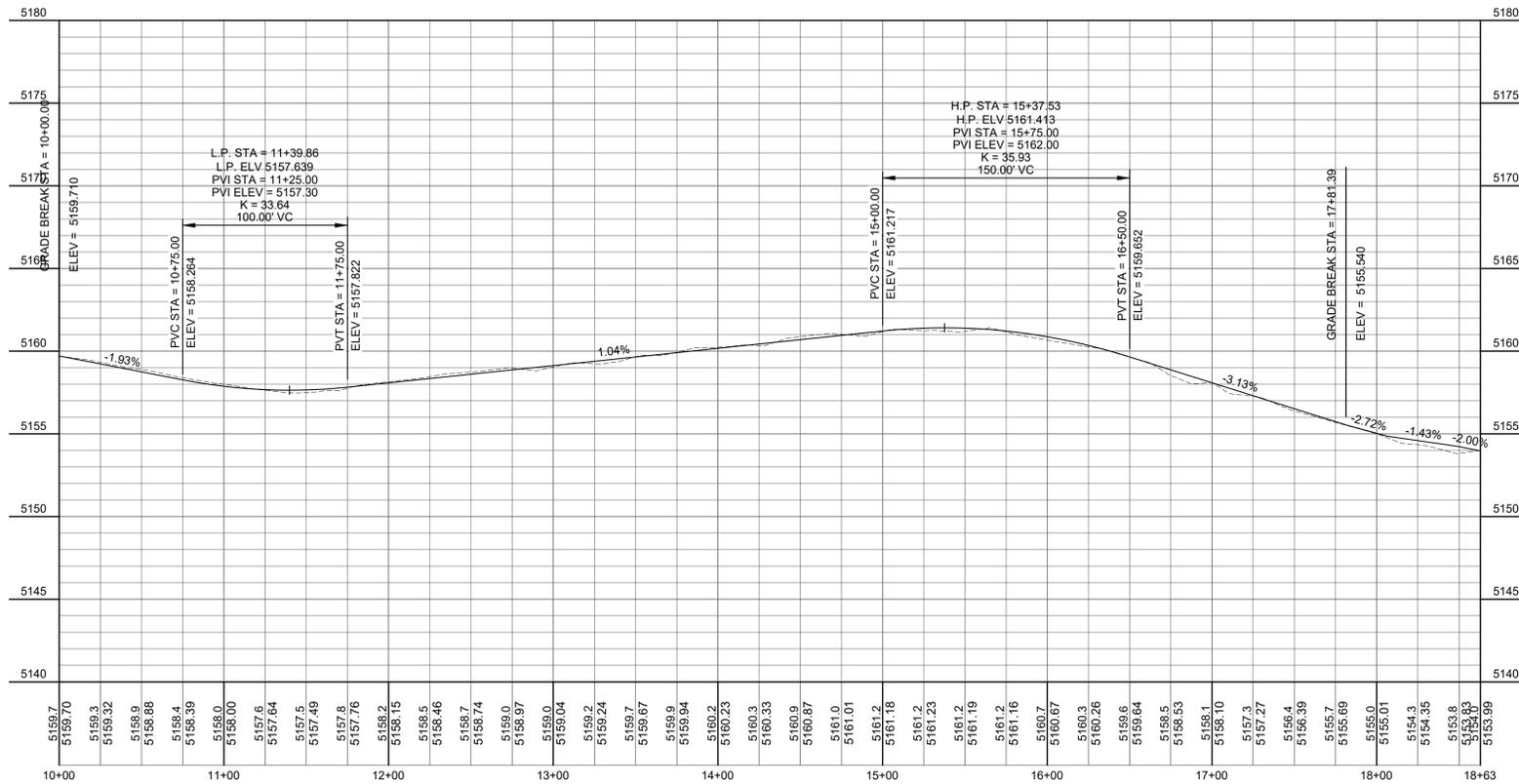
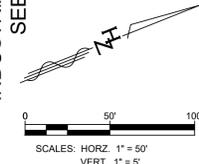
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ENTERPRISE RD NE
SEE SHEET 3-6



COMMERCE PLACE NE

INDUSTRIAL PARK LOOP NE
SEE SHEET 3-4

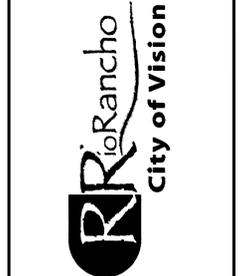


PAVING CONSTRUCTION NOTES

- ① CONSTRUCT PAVEMENT SECTION - ARTERIAL STREET PER DETAIL A, SHEET 3-8.
- ② REMOVE AND REPLACE DAMAGED CURB & GUTTER FROM NEAREST JOINT TO NEAREST JOINT
- ③ CONSTRUCT CROWN PAVEMENT SECTION PER TYPICAL SECTION B, SHEET 2-1.
- ④ CONSTRUCT SUPER-ELEVATED CROWN PAVEMENT SECTION, PER TYPICAL SECTION C, SHEET 2-1.
- ⑤ TREAT PAVEMENT SECTION WITH MASTER SEAL.
- ⑥ CONTRACTOR SHALL ADJUST MANHOLE TO SURFACE COARSE OF PAVEMENT. CIRCULAR CONCRETE COLLARS SHALL BE CONSTRUCTED TO SURFACE ELEVATION.
- ⑦ WATER VALVES SHALL BE ADJUSTED TO SURFACE COURSE OF PAVEMENT.
- ⑧ CONSTRUCT CROWN TRANSITION.

LEGEND

- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- MASTER SEAL
- FULL RECONSTRUCTION
- EX. SIGN
- EX. SEWER MANHOLE
- REMOVE/ REPLACE CURB & GUTTER
- SAWCUT EX. PAVEMENT

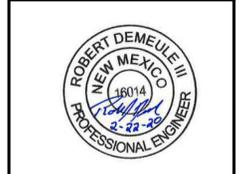


NO.	DESCRIPTION	DATE	BY
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Designed By: **HUIT-ZOJARS**
 HUIT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

City of Rio Rancho logo and 'CITY OF RIO RANCHO' text.

COMMERCE PLACE PLAN & PROFILE
 INDUSTRIAL PARK
 ROAD & UTILITY IMPROVEMENTS
 RIO RANCHO, NEW MEXICO

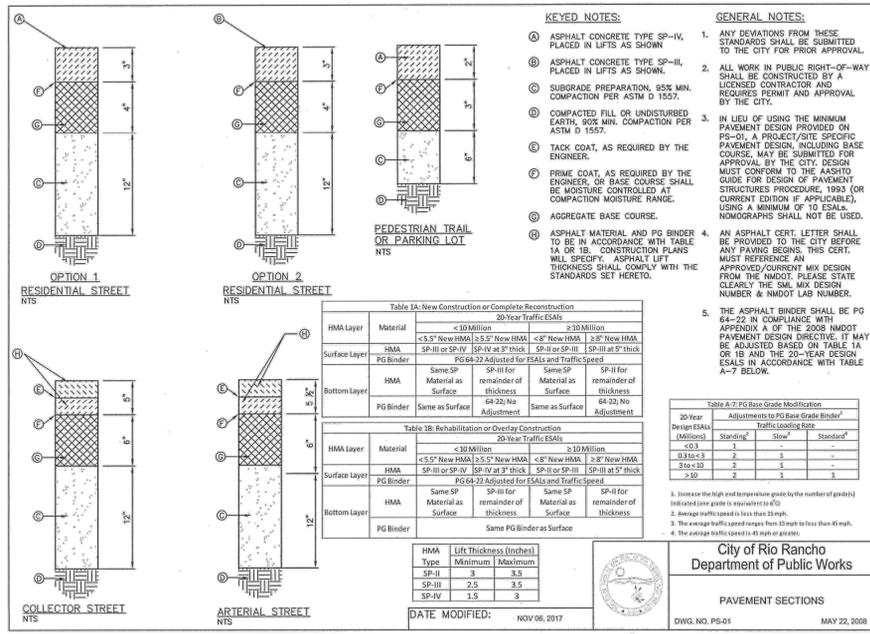


PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: VKL
 CHECKED BY: RJD
 DATE: FEB 2020
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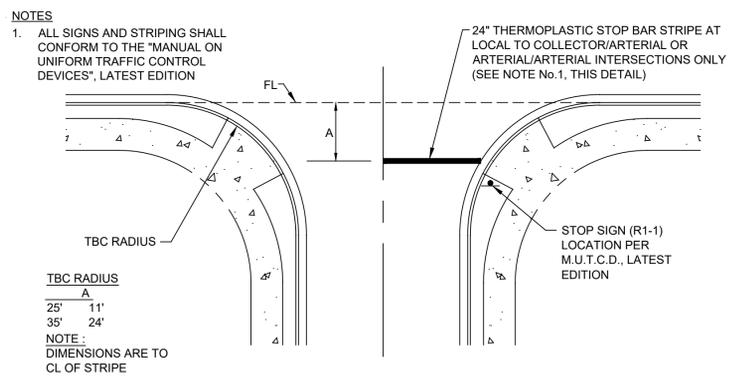
SHEET: **3-7**



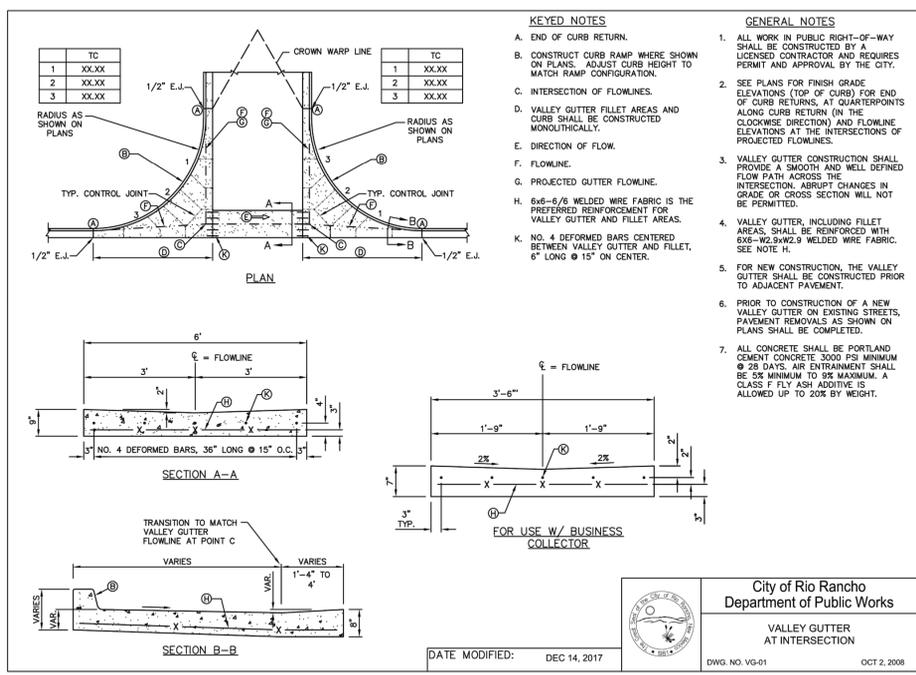
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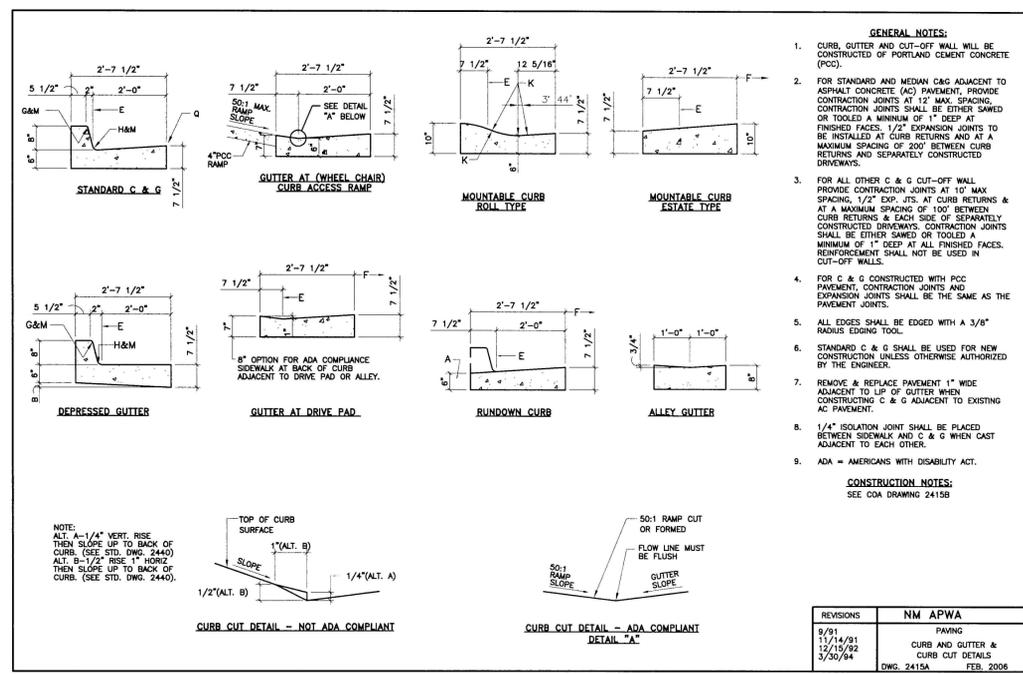
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N.T.S.



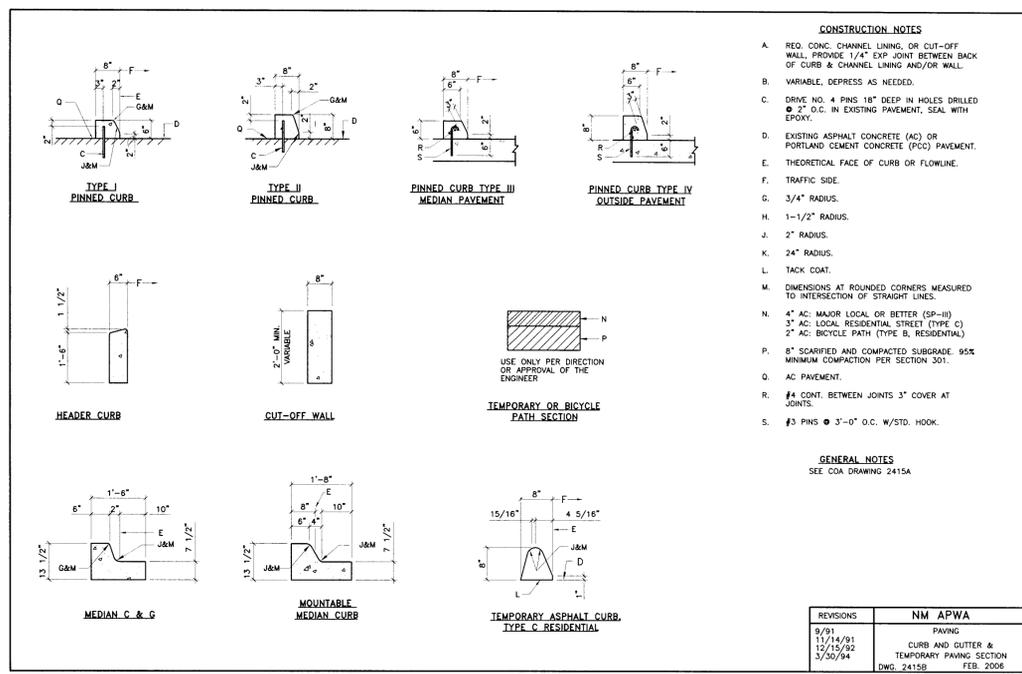
STOP BAR AND STOP SIGN LOCATON DETAIL
N.T.S.



CONCRETE VALEY GUTTER AT INTERSECTION
N.T.S.



CURB AND GUTTER DETAIL
N.T.S.



CURB AND GUTTER DETAIL
N.T.S.



HUIT-ZOIJARS
Professional Engineer
333 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

CITY OF RIO RANCHO

ROAD DETAILS

INDUSTRIAL PARK

ROAD & UTILITY IMPROVEMENTS

RIO RANCHO, NEW MEXICO

ROBERT DEMELLE III
Professional Engineer
16014
12/14/91

PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: VKL
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 3-8



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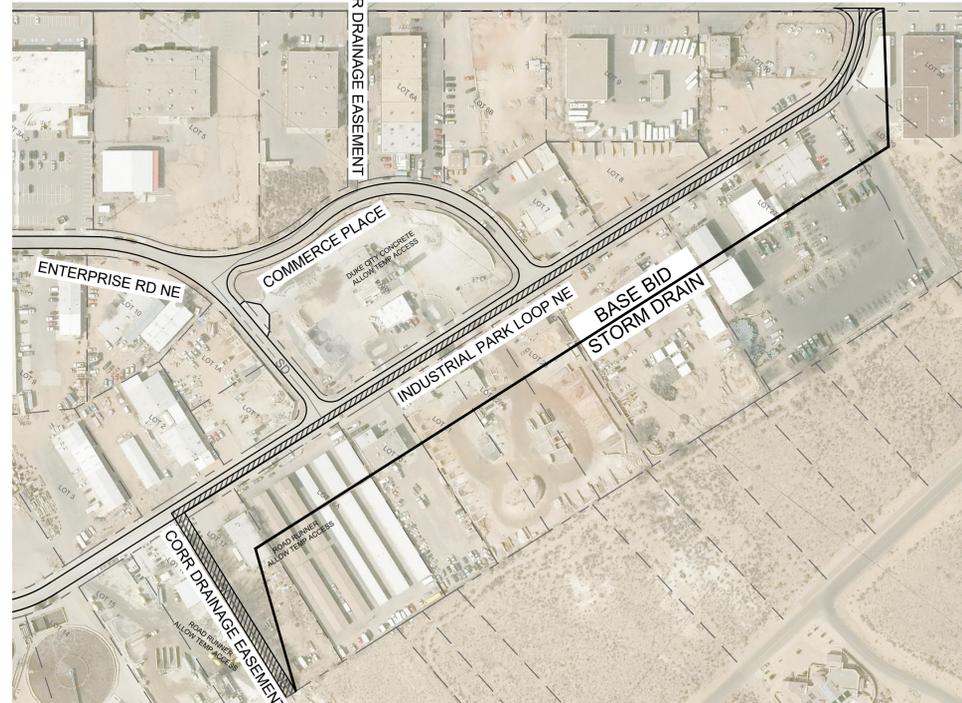


PHASE I



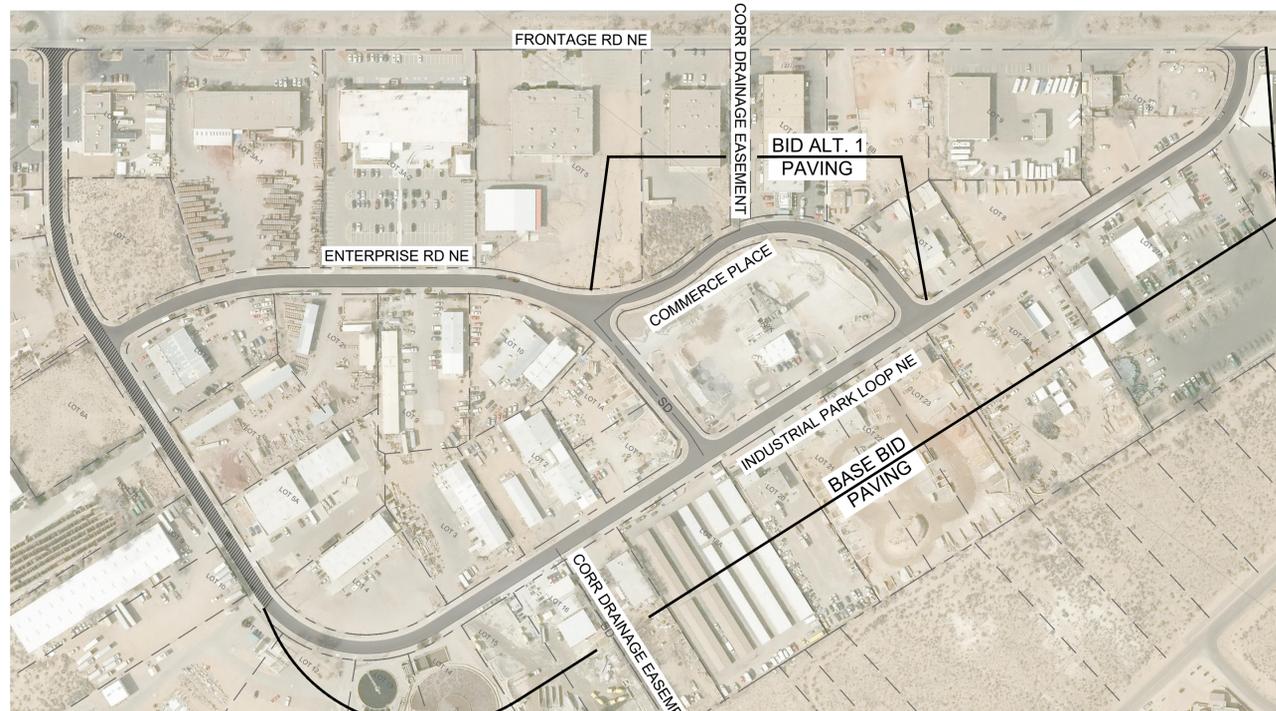
WATER LINE INSTALLATION

PHASE II



STORM DRAIN INSTALLATION

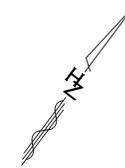
PHASE III



PAVING

LEGEND

- PHASE I- WATER LINE
- PHASE II- STORM DRAIN
- PHASE III- PAVING AND MASTER SEAL



NOT TO SCALE

NO.	DESCRIPTION	DATE	BY
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 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

Designed For:
CITY OF RIO RANCHO

COMPOSITE TRAFFIC CONTROL PLAN
 TCP OVERALL PHASING PLAN

INDUSTRIAL PARK
 ROAD & UTILITY IMPROVEMENTS
 RIO RANCHO, NEW MEXICO

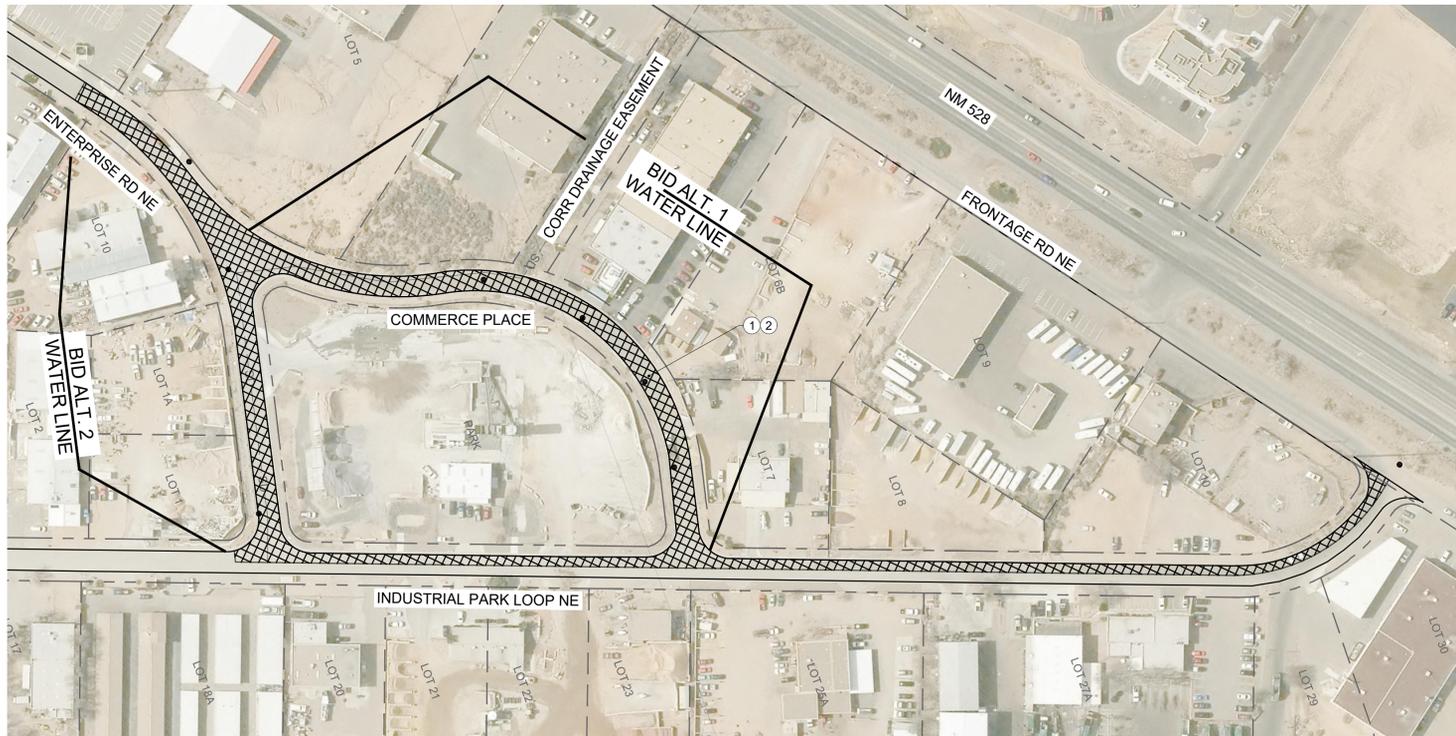


PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: STAFF
 CHECKED BY: RJD
 DATE: FEB 2020
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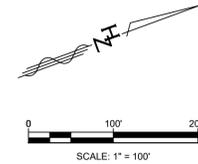
SHEET:
6-1



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PHASE I



SUGGESTED PHASING NOTES

- ① CONTRACTOR MAY ELECT TO REMOVE ALL SURFACING WITH PHASE 1 WORK. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PERMANENT BUSINESS ACCESS THROUGHOUT CONSTRUCTION.
- ② INSTALL NEW 8" WATER LINE WITH TEMPORARY CONCRETE WALL BARRIER (MAY BE WATER-FILLED TCWB VARIATION).
- ③ CLOSE TRENCH DAILY (NIGHTLY).

LEGEND

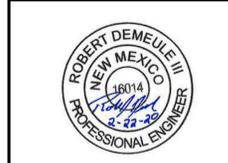
- PHASE I- WATER LINE
- PHASE II- STORM DRAIN

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Designed By:
HUIT-ZOLIARS
 HUIT-ZOLIARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 862-3259

Designed For:
CITY OF RIO RANCHO

TRAFFIC CONTROL PLAN PHASE I
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

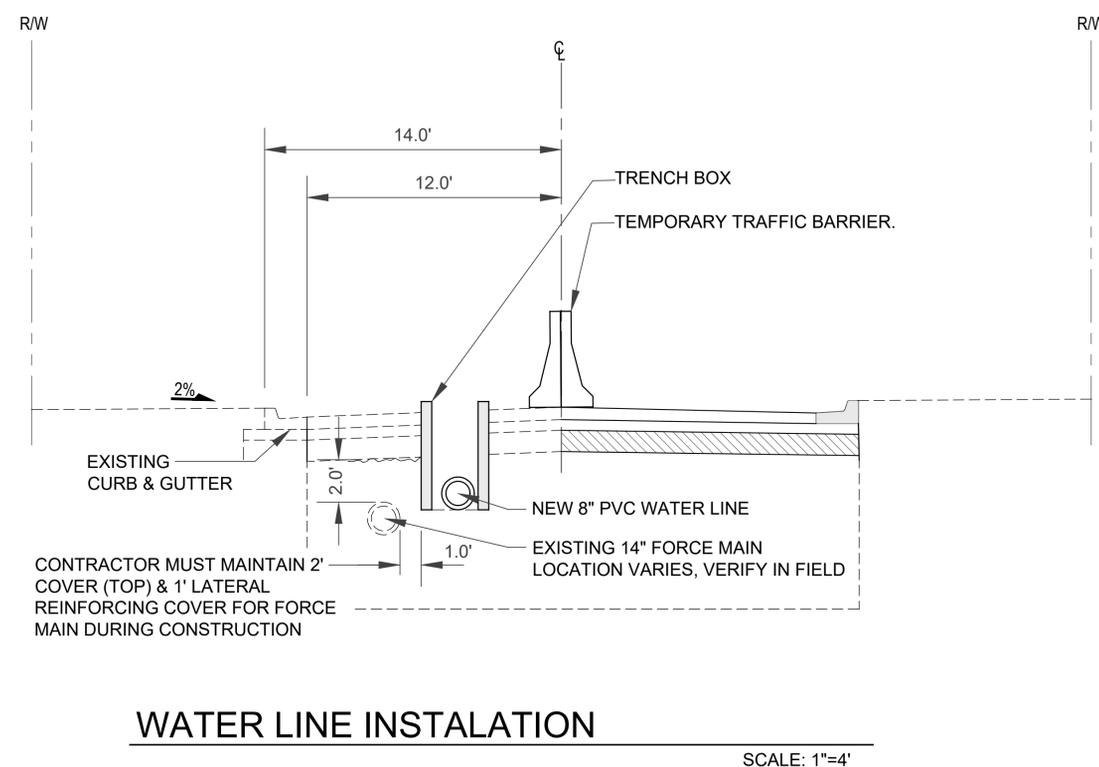


PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: VKL
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -

SHEET:
6-2

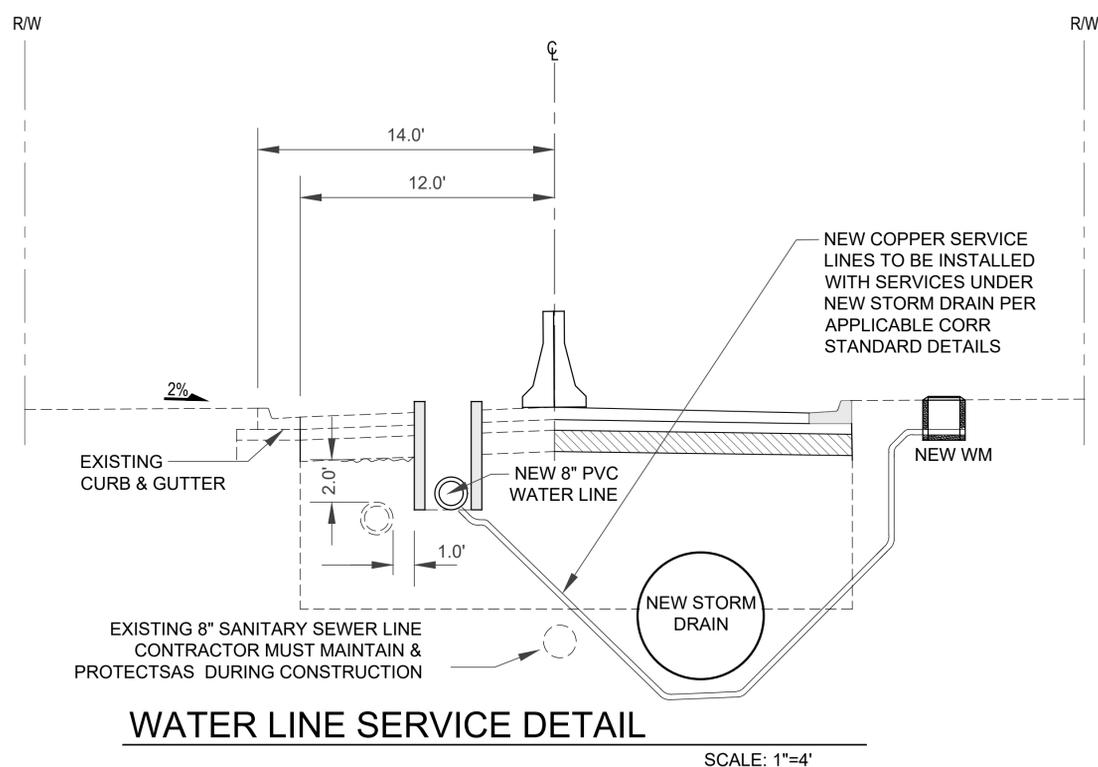


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WATER LINE INSTALLATION

SCALE: 1"=4'

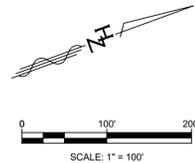


WATER LINE SERVICE DETAIL

SCALE: 1"=4'



PHASE II

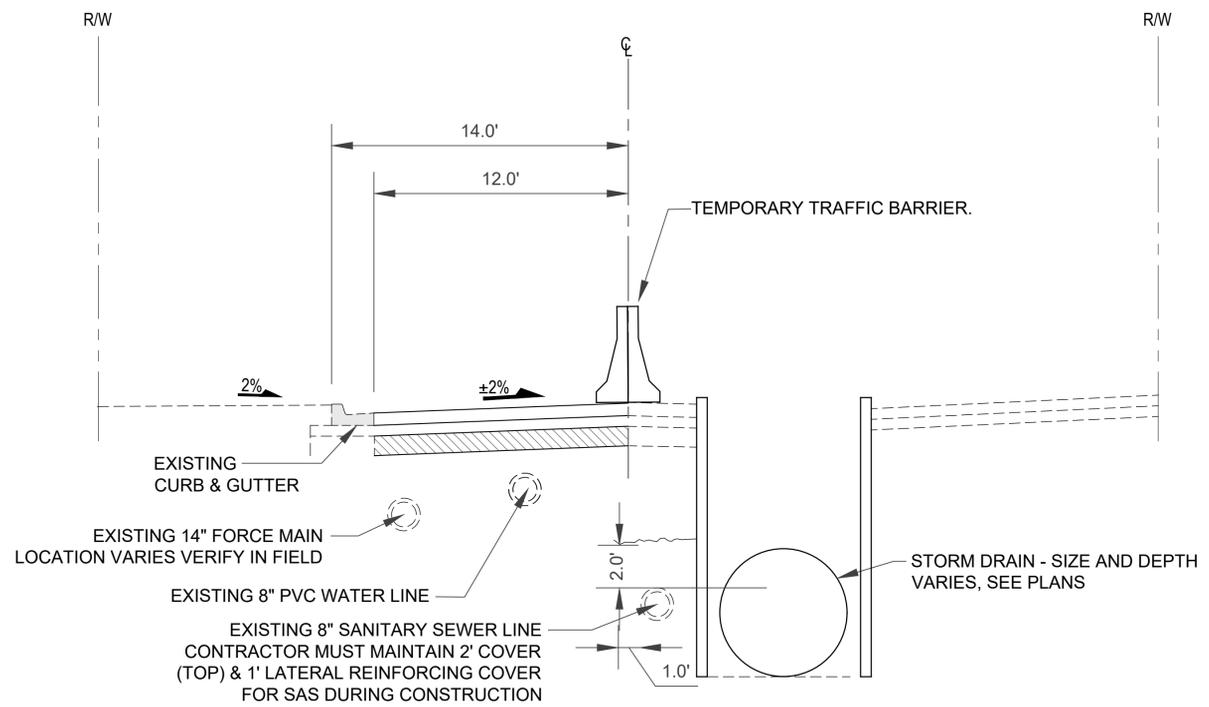


SUGGESTED PHASING NOTES

- ① CONTRACTOR MAY ELECT TO REMOVE ALL SURFACING WITH PHASE 1 WORK. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PERMANENT BUSINESS ACCESS THROUGHOUT CONSTRUCTION.
- ② INSTALL NEW STORM DRAIN.
- ③ CLOSE TRENCH DAILY (NIGHTLY).

LEGEND

- PHASE I- WATER LINE
- PHASE II- STORM DRAIN



STORM SEWER LINE INSTALLATION

SCALE: 1"=4'

NO.	DESCRIPTION	DATE	BY
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 Rio Rancho, New Mexico 87124
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Designed For: **CITY OF RIO RANCHO**

TRAFFIC CONTROL PLAN PHASE II
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

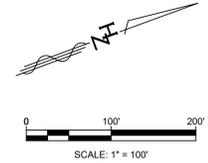


PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -

SHEET: **6-3**



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SUGGESTED PHASING NOTES

- ① CONTRACTOR MAY ELECT TO REMOVE ALL SURFACING WITH PHASE 1 WORK. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PERMANENT BUSINESS ACCESS THROUGHOUT CONSTRUCTION.
- ② INSTALL NEW 8" WATER LINE WITH TEMPORARY CONCRETE WALL BARRIER (MAY BE WATER-FILLED TCWB VARIATION).
- ③ CLOSE TRENCH DAILY (NIGHTLY).
- ④ INSTALL NEW PAVING AND MASTER SEAL.

LEGEND

- PHASE I- WATER LINE
- PHASE II- STORM DRAIN
- PHASE III- PAVING AND MASTER SEAL

NO.	DESCRIPTION	DATE	BY
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Designed By: **HUITT-ZOJARS**
 HUITT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

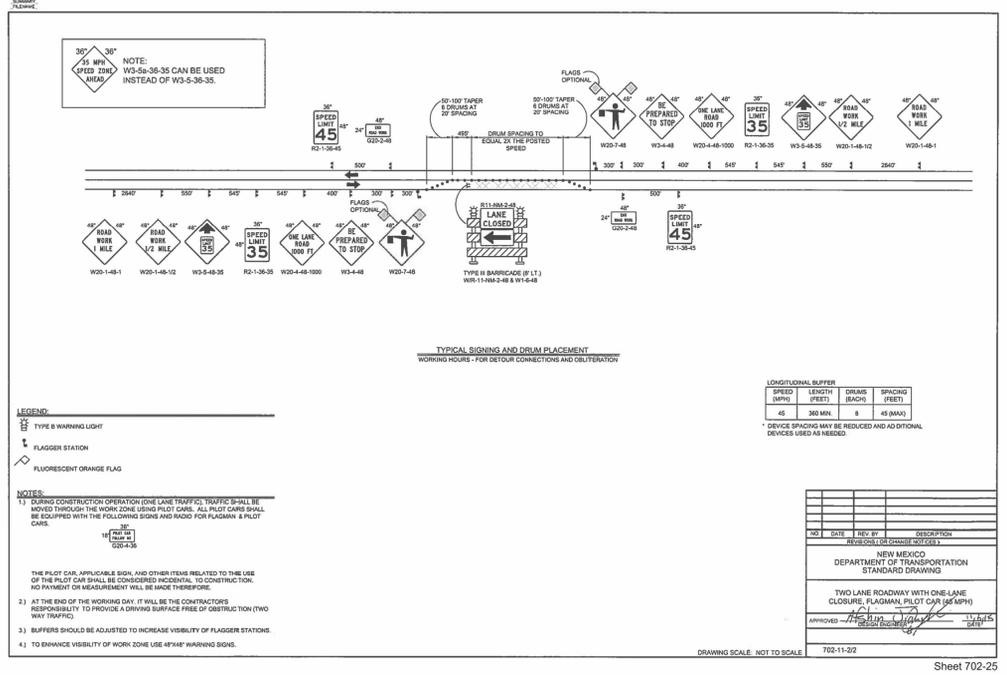
Designed For: **CITY OF RIO RANCHO**

TRAFFIC CONTROL PLAN PHASE III
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 6-4

PHASE III



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TRAFFIC CONTROL GENERAL NOTES:

- 1. TRAFFIC CONTROL: All Temporary Traffic Control (TTC) devices shall be placed in accordance with the NMDOT Standard Specifications for Highway and Bridge Construction (latest edition) and the Manual on Uniform Traffic Control Devices (latest edition) and current revisions with the following constraints:
a. No substitutions will be allowed for channelization devices type drum unless otherwise noted in the plans.
b. Temporary portable sign stands are an unnecessary hazard when not in use. Unused temporary sign stands shall be removed from the roadway.
c. Use of Type I or II barricades on roadways with speed limit greater than 40 mph is strictly prohibited.
d. The work zone shall comply with, but not limited to, NCHRP 476 Guidelines for Design and Operation of Nighttime Traffic Control.

- 11. CONSTRUCTION SIGNING: All construction signing shall meet retroreflectivity requirements listed in section 702.2.1 "Construction Signing" of the NMDOT Standard Specifications.
a. All construction signing on the interstate and on high speed (greater or equal to 45 MPH) multilane divided facilities shall be double indicated (left and right shoulders).
b. All signs that are part of work zone that are in place for more than 3 days shall be placed on breakaway posts. If there are physical restrictions at the site that prohibit the sign from being placed on posts, the Contractor shall notify the District Traffic Engineer and obtain a waiver.

Table with 5 columns: SIGN, SIGN CODE, COLOR, LETTER SHEETING, BACKGROUND SHEETING. Rows include APPROACH SIGNS, CHEVRONS, CURVES, REVERSE CURVE, MERGE, NO PASSING ZONE, FLAGGER PADGLE, ALL DRUMS, and All Other Construction Signs.

- 12. REMOVAL OF TEMPORARY STRIPING: All relevant temporary striping shall be removed upon completion of each phase of construction. The only approved method of stripe removal is water blasting.
13. SATISFACTORY WORKING CONDITION: All traffic control devices used on this project shall be in satisfactory working condition and shall function equivalently to new equipment in accordance with the MUTCD (latest edition).
14. TRAFFIC CONTROL FIELD ADJUSTMENTS: Location of device spacing shall be field verified to account for existing roadway features which may obstruct placement and/or view of devices.

Revision table with columns: NO, DATE, REV BY, DESCRIPTION. Includes title block for NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING, TEMPORARY TRAFFIC CONTROL GENERAL NOTES, and approval signatures.

Sheet 702-01

TRAFFIC CONTROL GENERAL NOTES (CONTINUED):

- 17. TEMPORARY CONCRETE WALL BARRIER (CWB): When facing the leading end of a Temporary Wall Barrier (CWB) within a construction work zone, the flare rate shall be done in accordance with the rates shown in the table below:
Table with 3 columns: Roadway Speed Limit, Minimum Taper/Flare Rate, Desirable Taper/Flare Rate.
a. When temporary wall barrier is placed in a construction work zone, a 5' clear area is required between the CWB and the work zone to accommodate barrier deflection.
b. Temporary CWB shall be provided with reflective barrier delineators as indicated in NMDOT standard drawing 606-21-1/1.



- 25. INCIDENT MANAGEMENT: Contractor is required to comply with requirements of FHWA CFR 630 Subpart J for Work Zone Safety and Mobility which shall include an Incident Management Plan to be utilized for the entire duration of the project.
a. Contacts for the contractor, local enforcement, safety agencies, municipal agencies, public information officer and NMDOT.
b. Steps to be followed during incidents.
c. Method of recording and reporting incidents.

Table with 2 columns: A, LIST OF INCIDENTALS for Temporary Traffic Control. Row 1: MAINTENANCE OF TEMPORARY PAVEMENT MARKINGS FOR PROJECT DURATION.

- 20. Lane Closures: The Contractor/TCP firm shall not place a lane closure taper along a horizontal curve. The taper shall be placed in advance of the horizontal curve so that it is visible to all oncoming traffic.
21. Sequential Arrow Display: Placement of the sequential arrow shall be at or near the beginning of the lane closure taper.
22. ADDITIONAL SIGNS: "BUMP", "LOOSE GRAVEL", "LANE DROP-OFF SIGN" sign placement.
23. CLEAR ZONE: All stationary objects within clear zone shall be properly shielded and outlined with drums mounted with Type "X" warning lights.

Revision table with columns: NO, DATE, REV BY, DESCRIPTION. Includes title block for NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING, TEMPORARY TRAFFIC CONTROL GENERAL NOTES, and approval signatures.

Sheet 702-02

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Designed By: HUITT-ZOJARS, Inc. 333 Rio Rancho Drive NE, Suite 101, Rio Rancho, New Mexico 87124. Phone (505) 892-5141 Fax (505) 892-3289

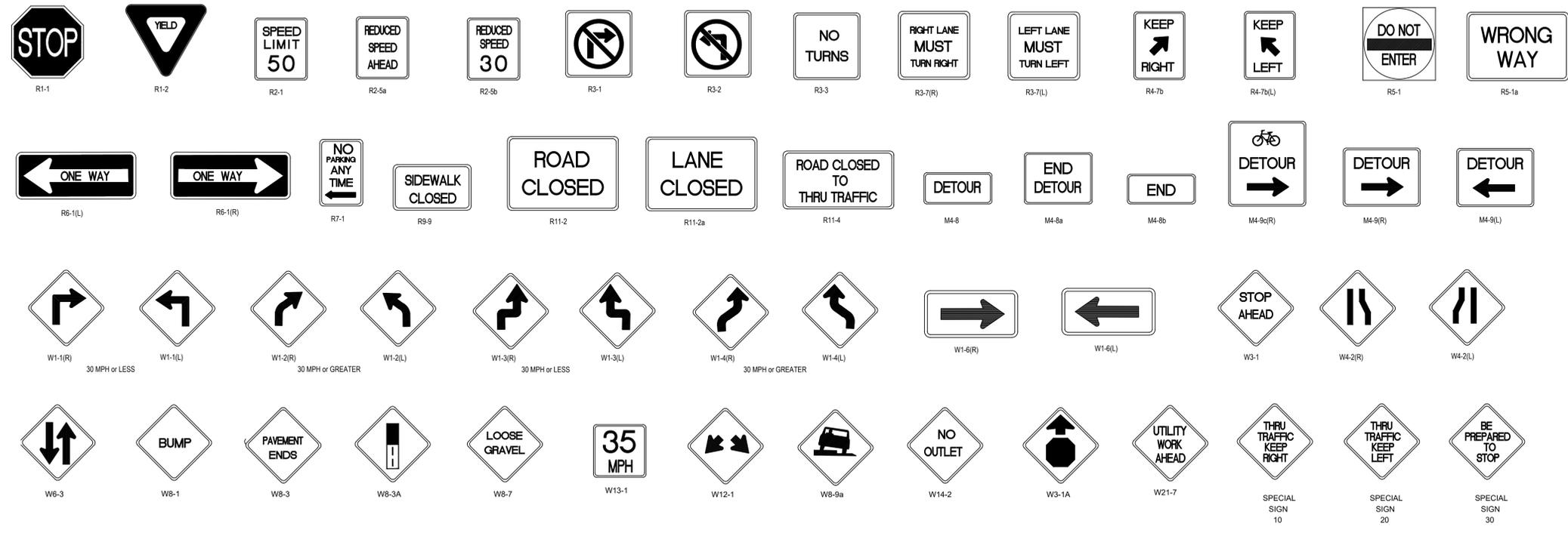
Designed For: CITY OF RIO RANCHO

TRAFFIC CONTROL DETAILS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

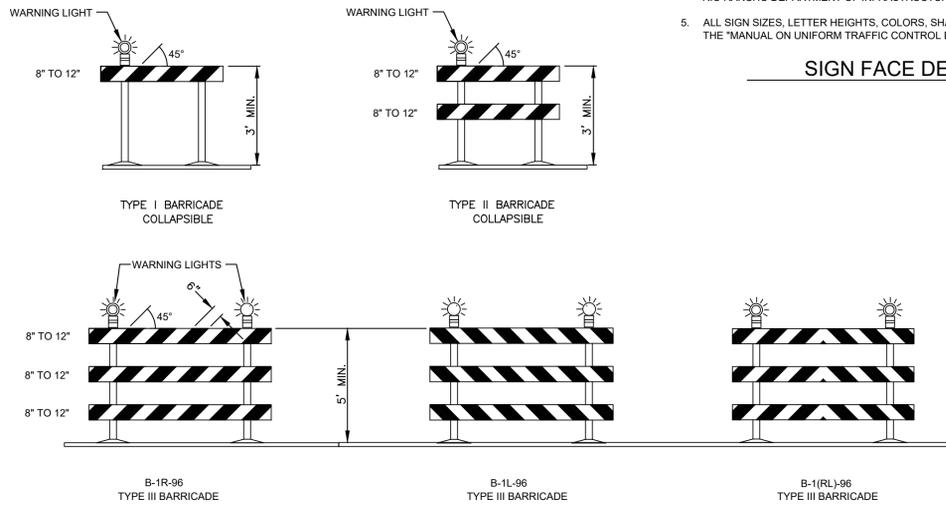


PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 6-5

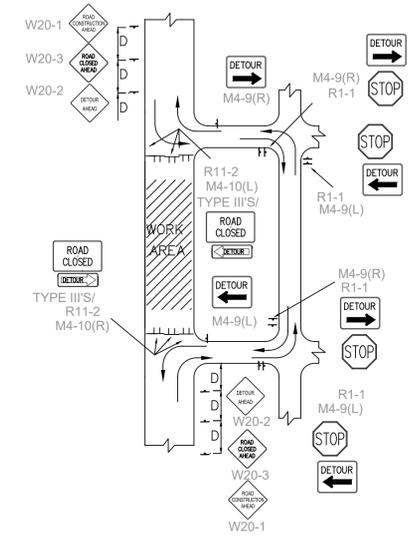
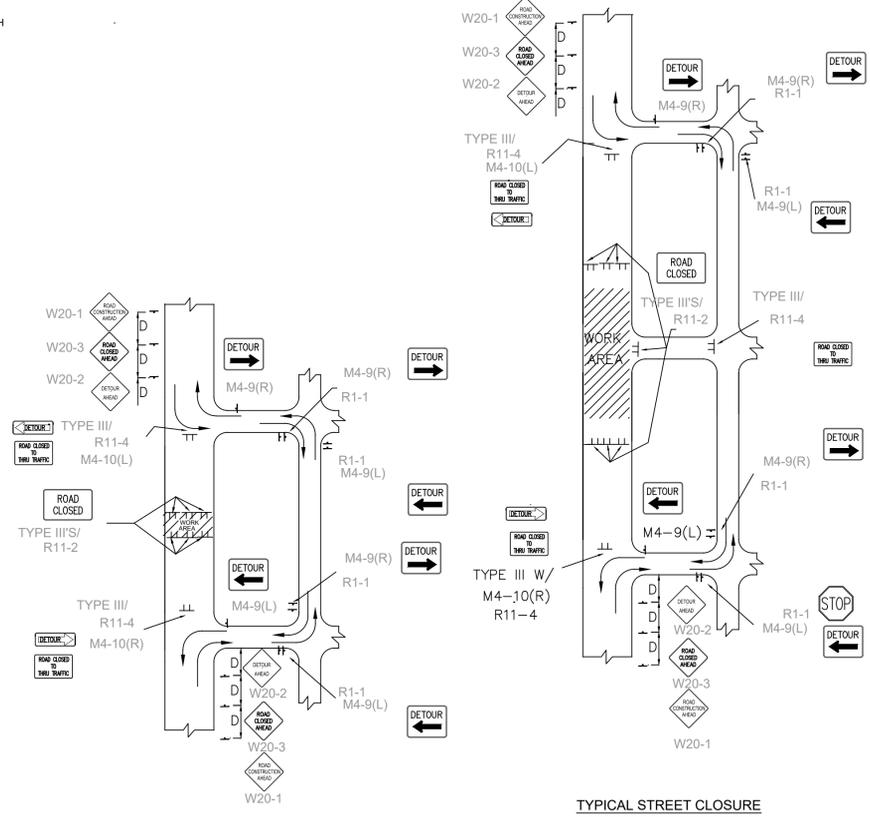




- GENERAL NOTES:**
- FOR ROADS CLASSIFIED AS COLLECTOR OR LOCAL, USE 38-70 HIGH INTENSITY 3M REFLECTIVE MATERIAL OR APPROVED EQUAL.
 - FOR ROADS CLASSIFIED AS ARTERIAL, USE 39-30 HIGH INTENSITY PRIZMATIC REFLECTIVE MATERIAL OR APPROVED EQUAL.
 - ALL STREET SIGNS THAT LEAD TO CUL-DE-SACS MUST INCLUDE THE WORDS "DEAD END" IN BLACK LETTERS OVER YELLOW BACKGROUND ALONG SIDE THE STREET NAME.
 - ALTERNATIVE MATERIALS TO THOSE SPECIFIED ABOVE MUST BE SUBMITTED TO THE CITY OF RIO RANCHO DEPARTMENT OF INFRASTRUCTURE AND APPROVED PRIOR TO INSTALLATION.
 - ALL SIGN SIZES, LETTER HEIGHTS, COLORS, SHAPES, AND BORDERS ARE TO CONFORM WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.



SIGN FACE DETAILS



TYPICAL STREET CLOSURE
NOTE: (R1-1) BASED ON FIELD CONDITIONS.

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Designed By: **HUIT-ZOJARS**
 HUIT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

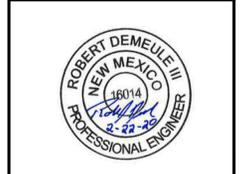
City of Rio Rancho

TRAFFIC CONTROL DETAILS

INDUSTRIAL PARK

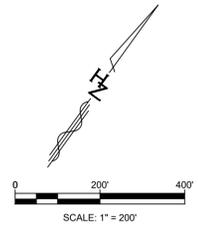
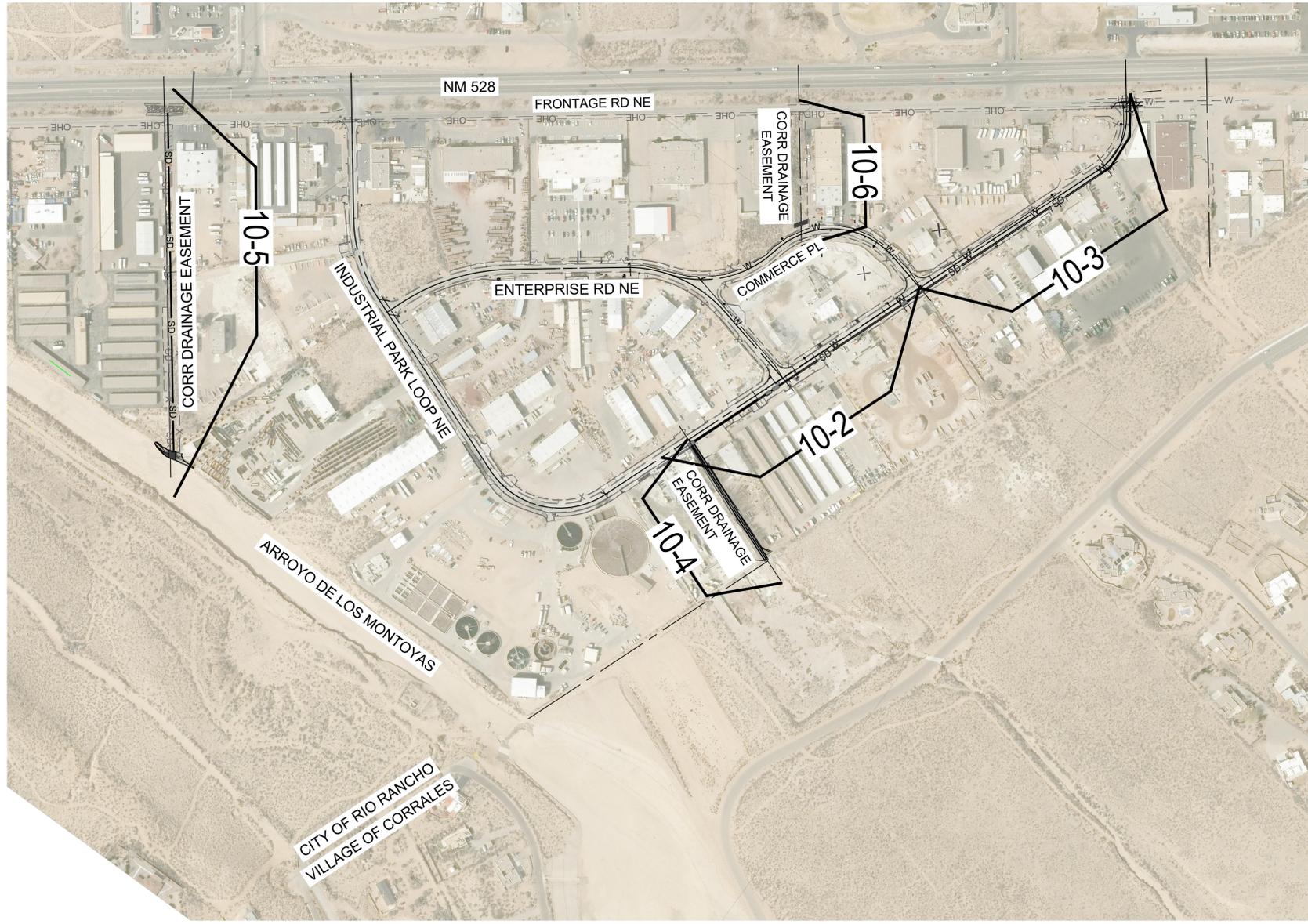
ROAD & UTILITY IMPROVEMENTS

RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
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 HUIT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259
 Designed For: **CITY OF RIO RANCHO**

COMPOSITE DRAINAGE PLAN
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: VKL
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -

SHEET:
10-1





NO.	DESCRIPTION	DATE	BY
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Designed By:
HUIT-ZOJARS
 HUIT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

Designed For:
CITY OF RIO RANCHO

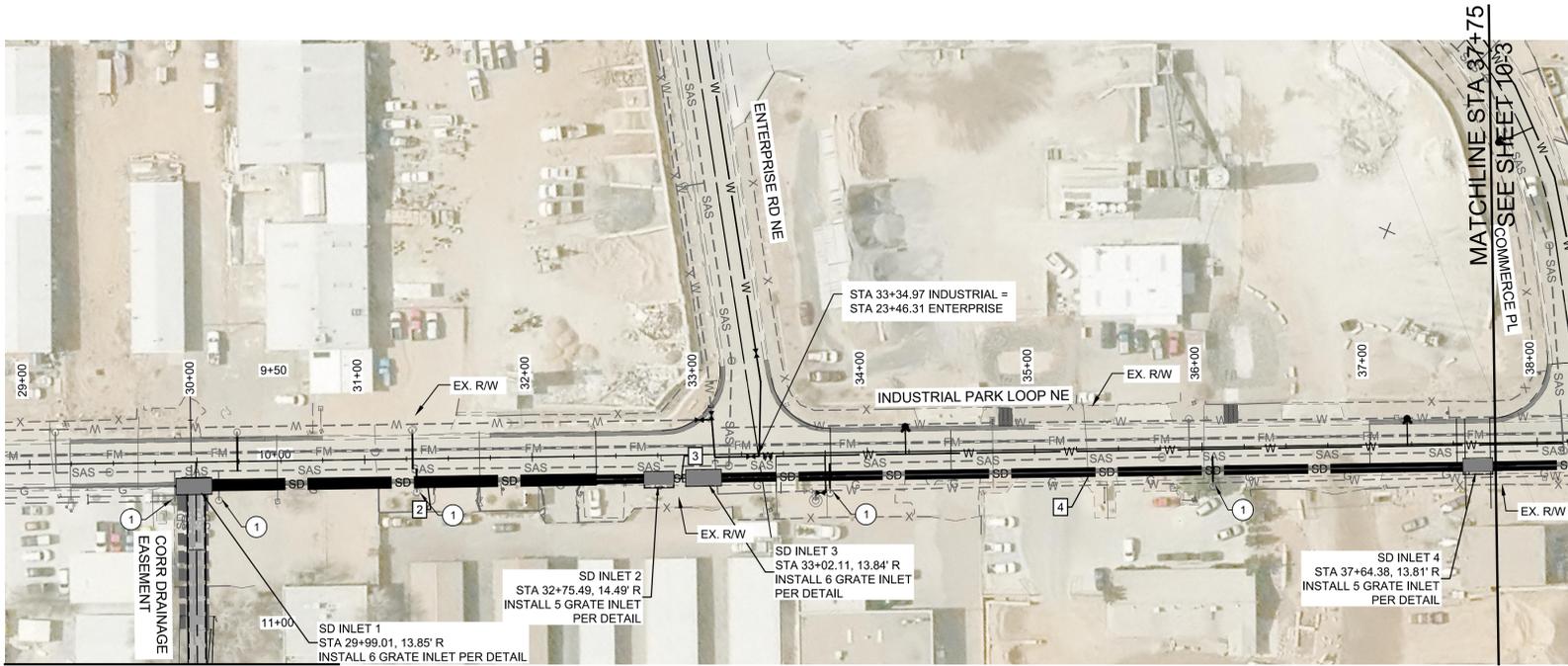
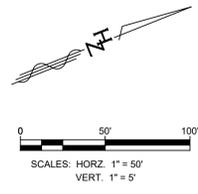
DRAINAGE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
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 DATE: FEB 2020
 DPW CHK: -
 SHEET:
10-2

KEYED NOTES

① AT ALL EXISTING SANITARY SEWER SERVICES (SAMPLING PORT MANHOLES), RECONNECT SERVICES USING DETAIL D, SHEET 10-10. CORR STANDARD DETAILS A,B & C, SHEET 10-10 MAY BE UTILIZED TO MAKE APPROPRIATE CONNECTION.



MATCHLINE
SEE SHEET 10-4

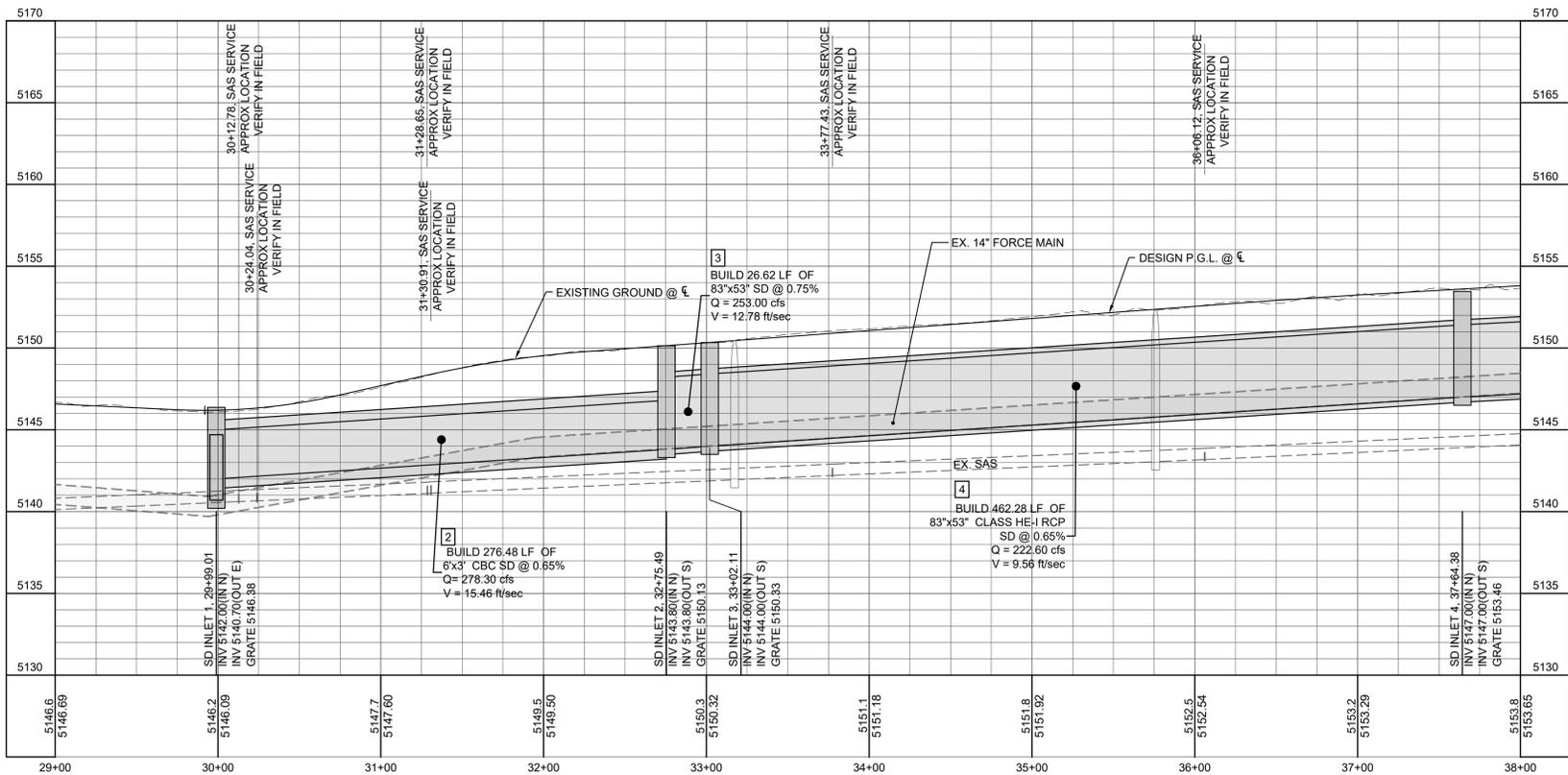
INDUSTRIAL PARK LOOP NE SD

☐ STORM DRAIN DATA

PIPE	PIPE SIZE	BEARING	LENGTH	SLOPE
2	6"W x 3'H	S20° 55' 01"W	276.48'	0.65%

☐ STORM DRAIN DATA

PIPE	PIPE SIZE	BEARING	LENGTH	SLOPE
3	83"W x 53"H	S19° 22' 54"W	26.62'	0.75%
4	83"W x 53"H	S20° 46' 57"W	462.28'	0.65%



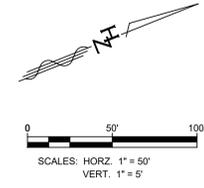
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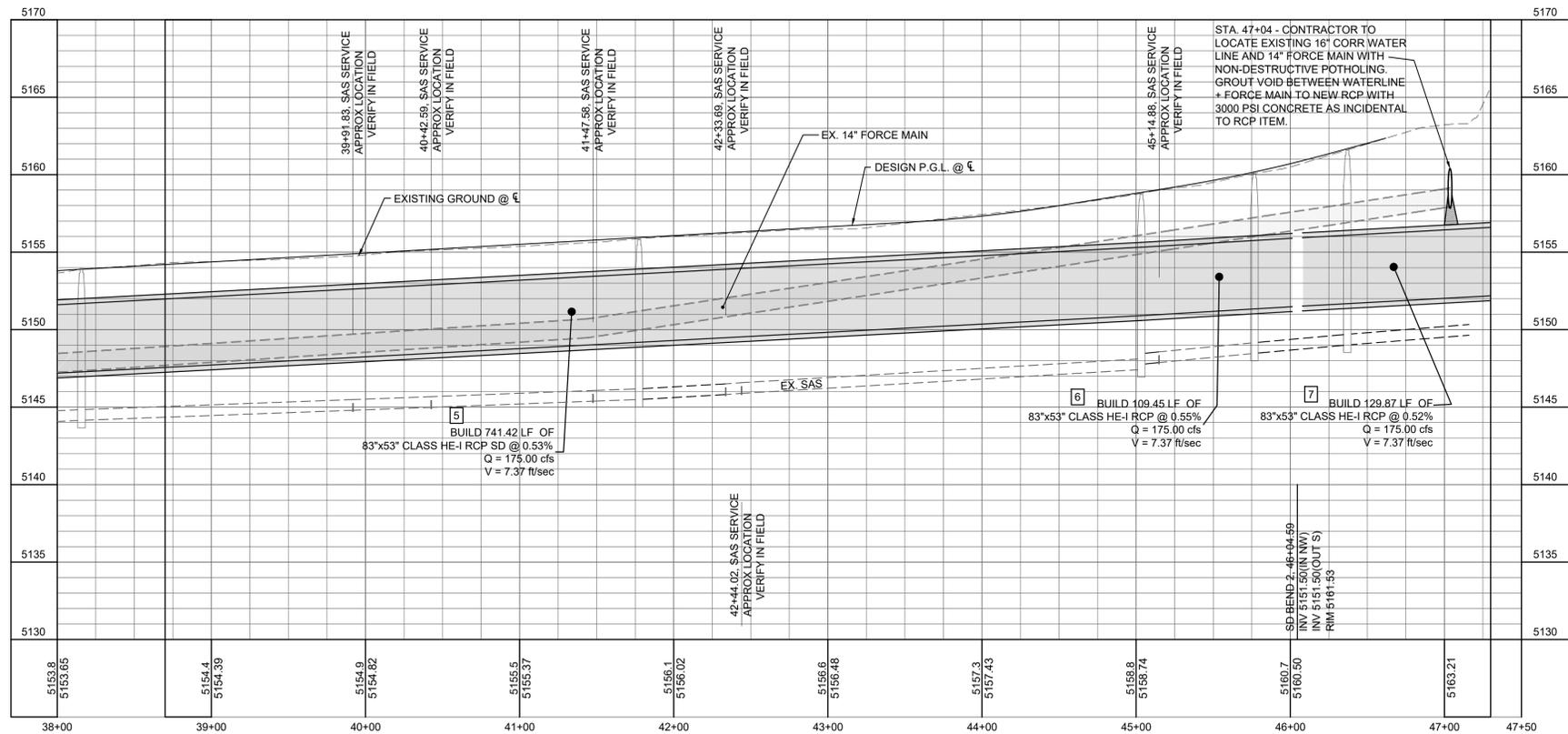
KEYED NOTES

- ① AT ALL EXISTING SANITARY SEWER SERVICES (SAMPLING PORT MANHOLES), RECONNECT SERVICES USING DETAIL D, SHEET 10-10. CORR STANDARD DETAILS A,B & C, SHEET 10-10 MAY BE UTILIZED TO MAKE APPROPRIATE CONNECTION.



PIPE	PIPE SIZE	BEARING	LENGTH	SLOPE
5	83"W x 53"H	S20° 42' 52"W	741.42'	0.53%
6	83"W x 53"H	S02° 53' 44"E	109.45'	0.55%
7	83"W x 53"H	S35° 44' 40"E	129.87'	0.52%

INDUSTRIAL PARK LOOP NE SD



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CITY OF RIO RANCHO

DRAINAGE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
 DESIGNED BY: GM
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 DATE: FEB 2020
 DPW CHK: -

SHEET:
10-3

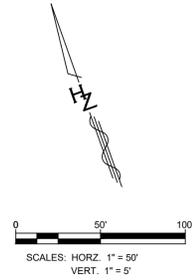
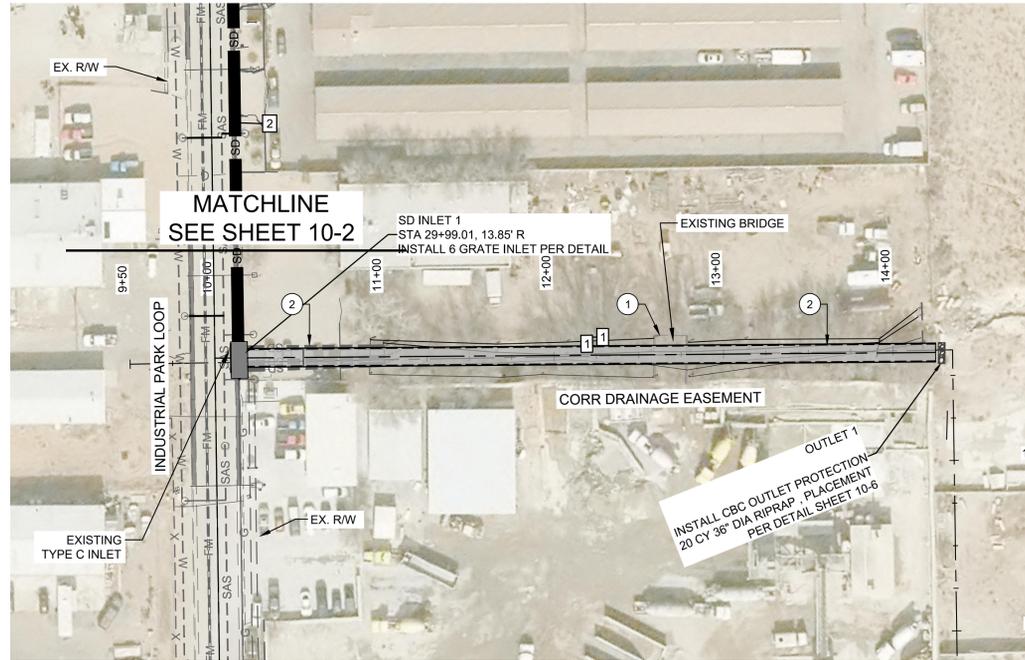


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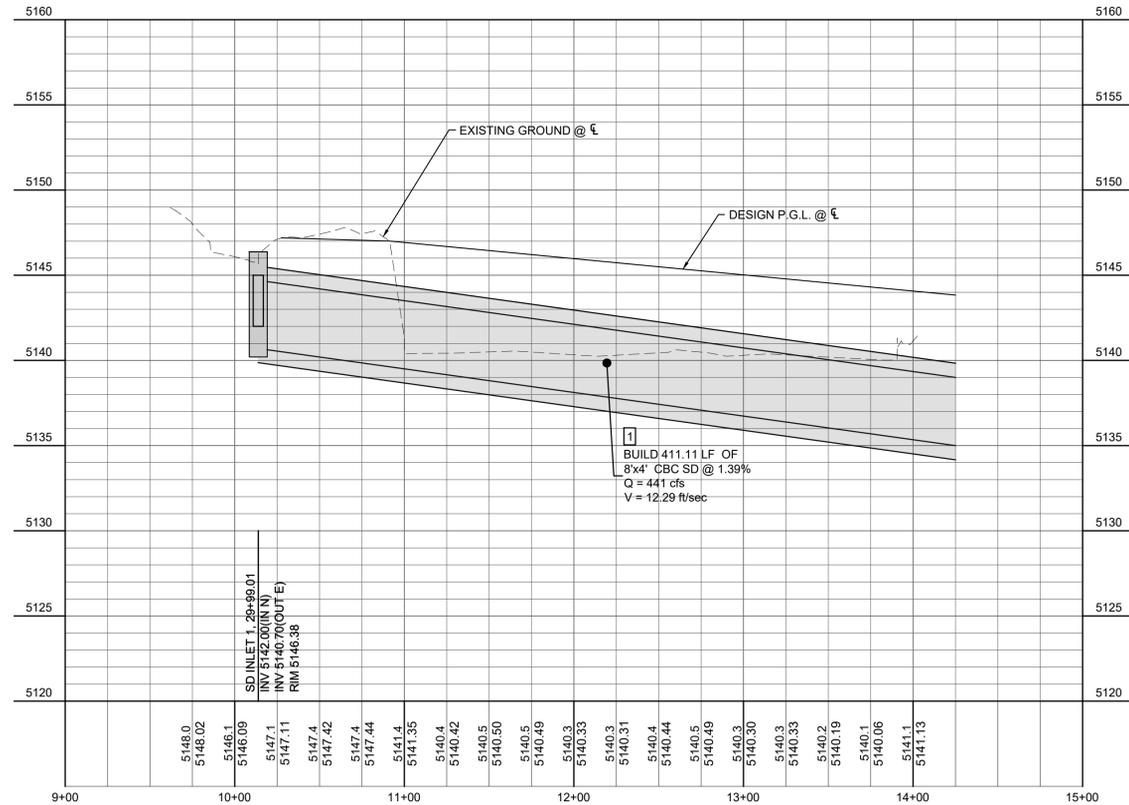
CONSTRUCTION NOTES

- ① DEMO AND REMOVE EXISTING BRIDGE.
- ② CONSTRUCT NEW 4'x8' CBC, 0° SKEW PER NMDOT DETAILS, SHEET 10-11. OVEREXCAVATE AND REPLACE WITH A-1-A MATERIAL, 6' DEPTH CBC SUBGRADE. (DESIGN FILL A, BURY 0'-10')



DRAINAGE EASEMENT SD AND CHANNEL

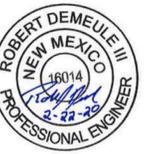
STORM DRAIN DATA				
PIPE	PIPE SIZE	BEARING	LENGTH	SLOPE
1	8'W x 4'H	S69° 22' 13"E	411.11'	1.39%



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DRAINAGE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



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 DATE: FEB 2020
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SHEET:
10-4





NO.	DESCRIPTION	DATE	BY
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DRAINAGE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



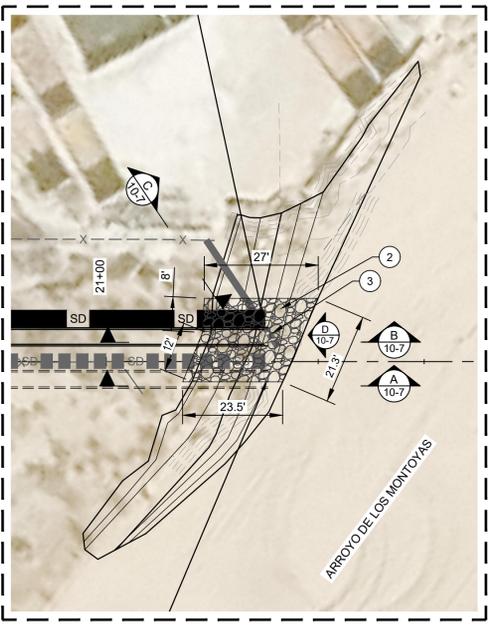
PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: STAFF
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -
 SHEET: **10-5**

CONSTRUCTION NOTES

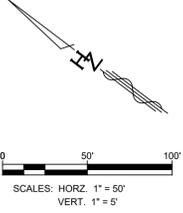
- CONTRACTOR TO EXPOSE EXISTING 42" CMP DURING TRENCHING OPERATION OF NEW 42" CMP. CORR INSPECTOR TO BE NOTIFIED FOR INSPECTION OF EXPOSED PIPE. DAMAGED PIPE TO BE REPAIRED AT THE BID PRICE PER LF OF 42" STORM DRAIN, INCLUDES BANDS, DEMO, NEW PIPE.
- 1" THICK CLASS A RIP-RAP.
- CUT, MITRE AND REMOVE 11 LF, 18" CMP PIPE TO RIP RAP SLOPE BLANKET.
- CONTRACTOR TO COORDINATE WITH OWNER, GAS COMPANY, AND UTILITIES AS NECESSARY TO RELOCATE GAS METER, WALLS, AND OWNER PROPERTY AS NEEDED TO CONSTRUCT PIPE IN EASEMENT.
- REPLACE TO PRE-EXISTING CONDITIONS AND REPAVE & RESTRIPE PARKING LOT, PAID BY ITEMS.

STORM DRAIN DATA

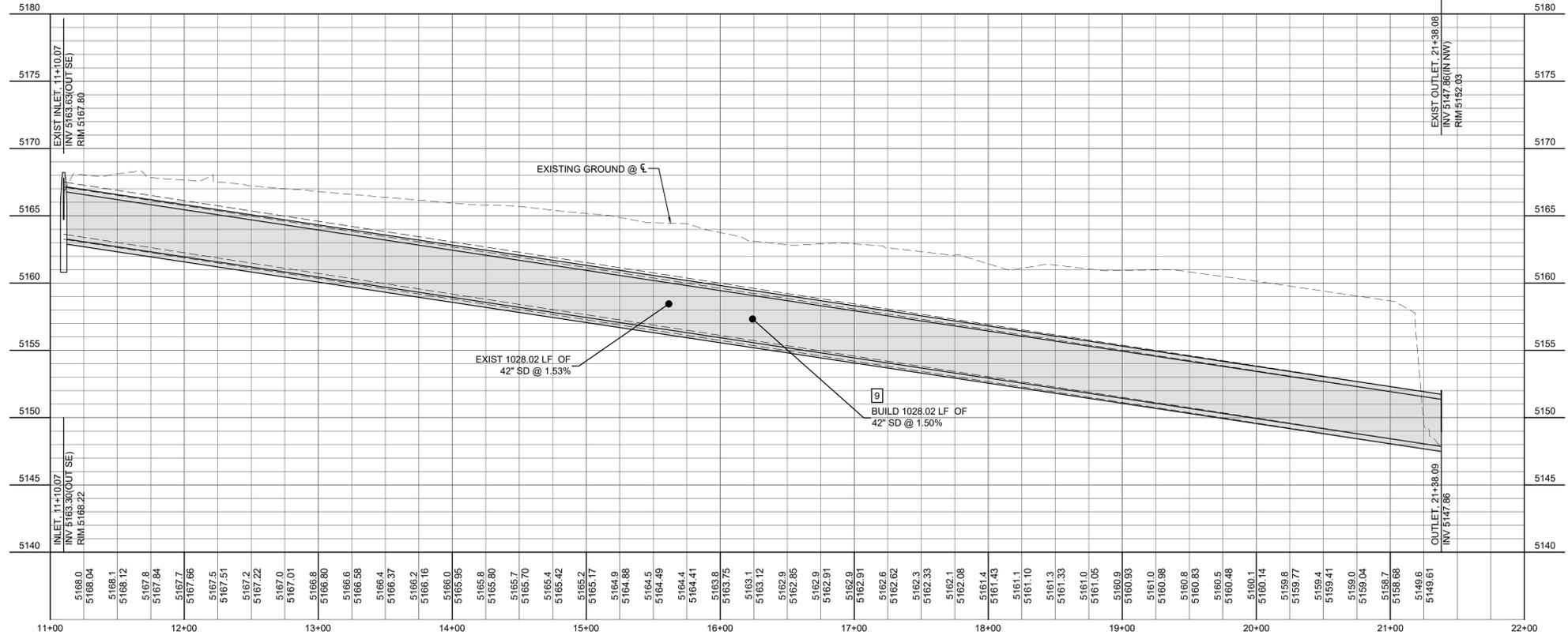
PIPE	PIPE SIZE	BEARING	LENGTH	SLOPE
1	8"W x 4'H	S69° 22' 13"E	411.11'	1.39%



ENLARGED PLAN
SCALE: 1" = 20'



SOUTH DRAINAGE EASEMENT SD

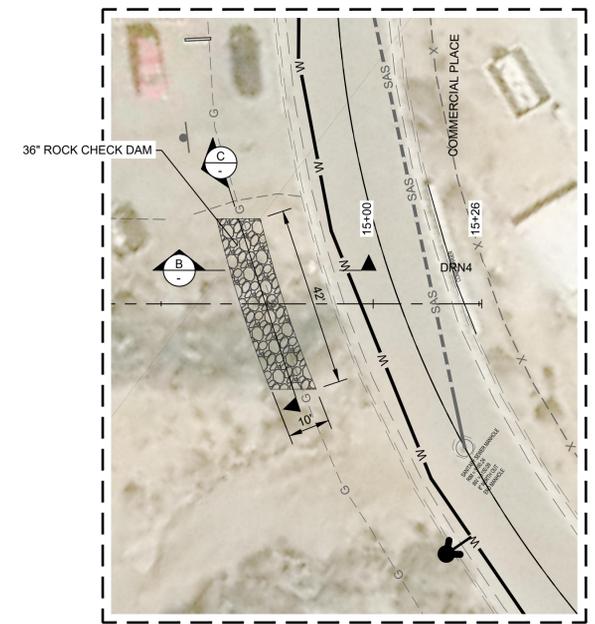
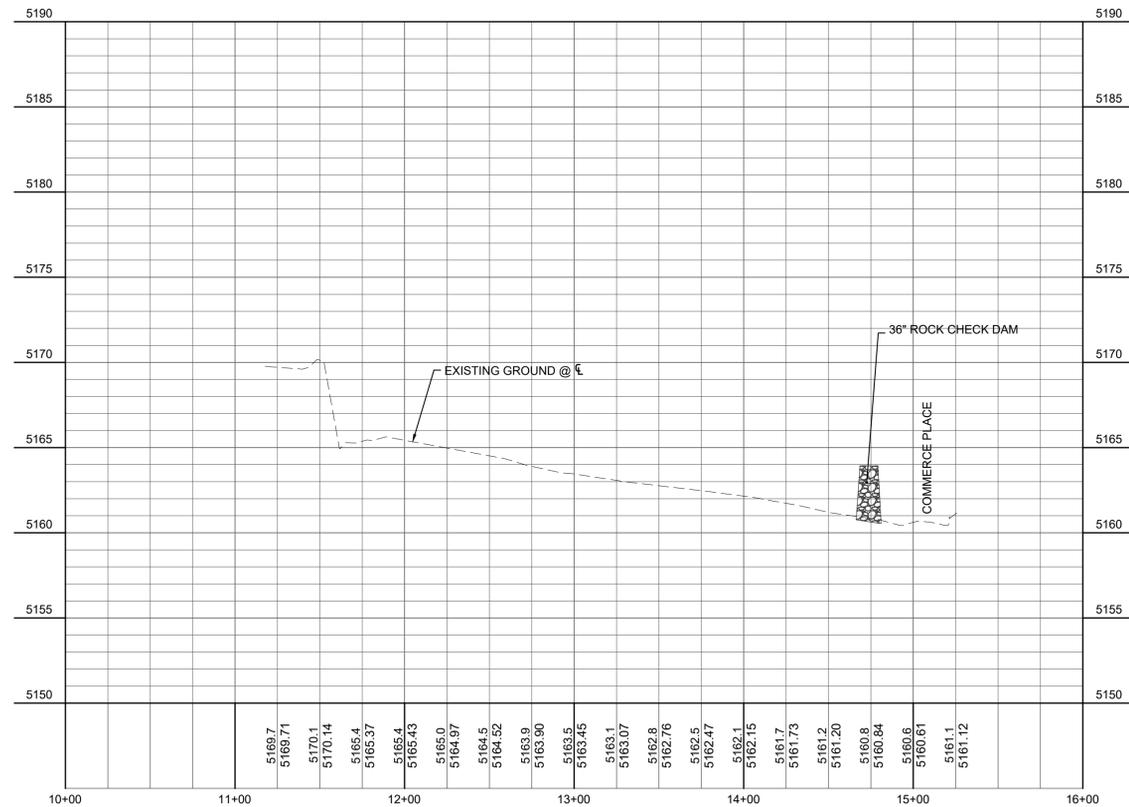
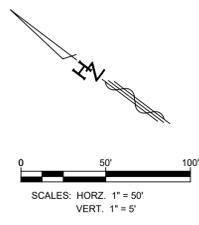


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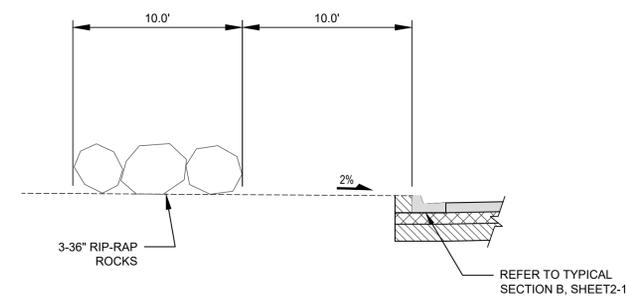




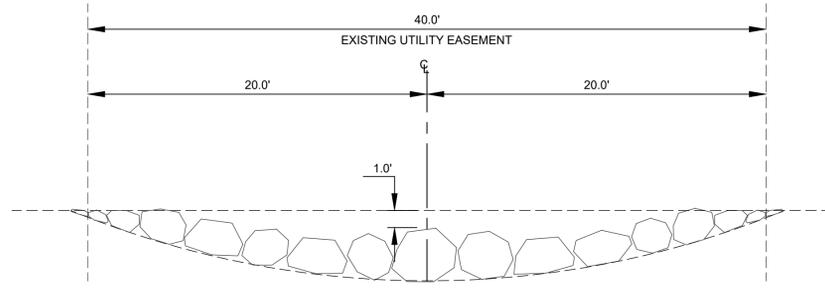
DRAINAGE EASEMENT CHANNEL



ENLARGED PLAN
SCALE: 1" = 20'



SECTION B
SCALE: 1" = 20'



SECTION C
SCALE: 1" = 20'

NO.	DESCRIPTION	DATE	BY
7			
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NO.			

Designed By: **HUIT-ZOJARS**
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Designed For: **CITY OF RIO RANCHO**

DRAINAGE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

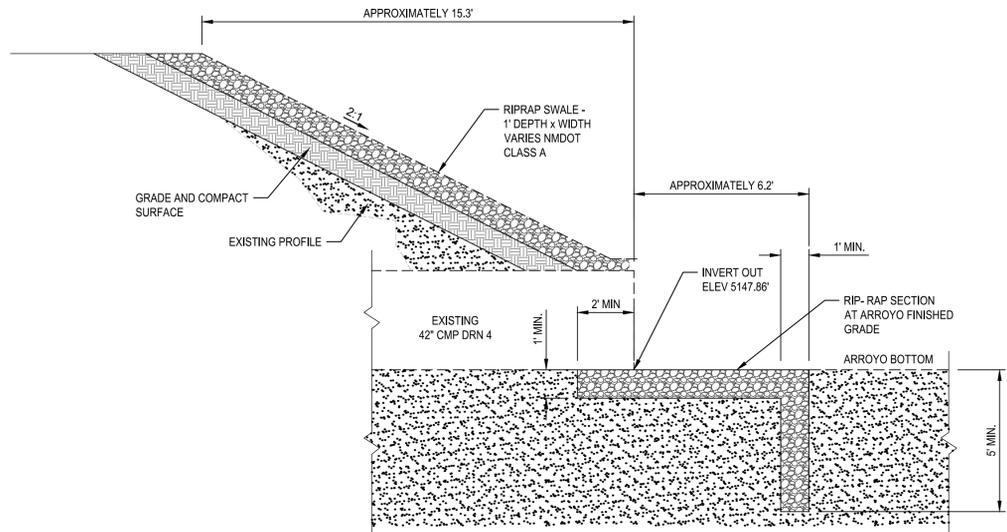


PROJECT NO. R309554.01
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 DATE: FEB 2020
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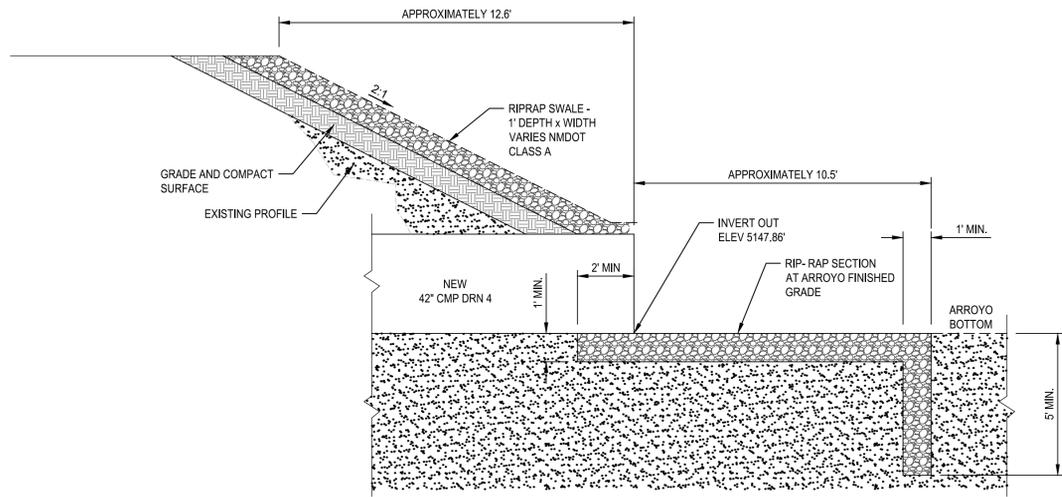
SHEET: **10-6**

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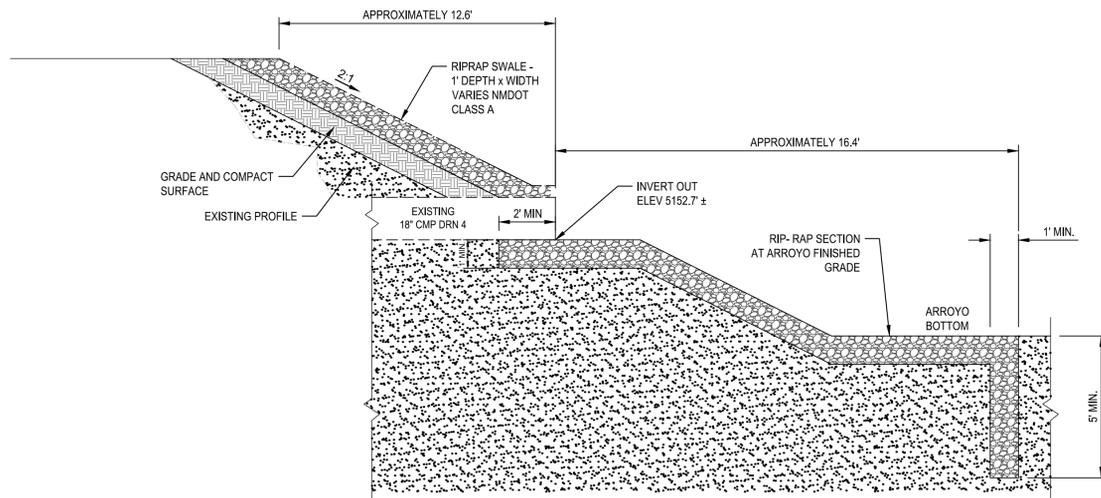




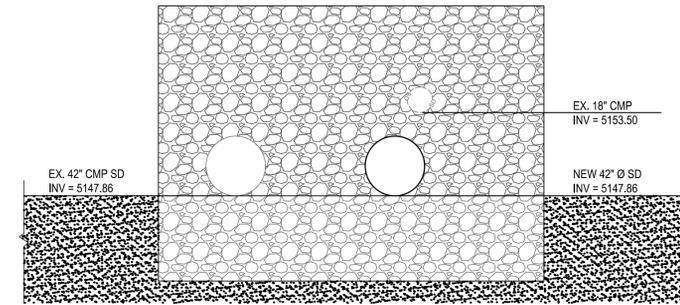
EXISTING 42" CMP CONSTRUCTION END TREATMENT SECTION
N.T.S. A



NEW 42" CMP CONSTRUCTION END TREATMENT SECTION
N.T.S. B



EXISTING 18" CMP CONSTRUCTION END TREATMENT SECTION
N.T.S. C



CMP SLOPE BLANKET ELEVATION
SCALE: 1" = 5' D

NO.	DESCRIPTION	DATE	BY
7			
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Designed For: **CITY OF RIO RANCHO**

OUTFALL DETAIL
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

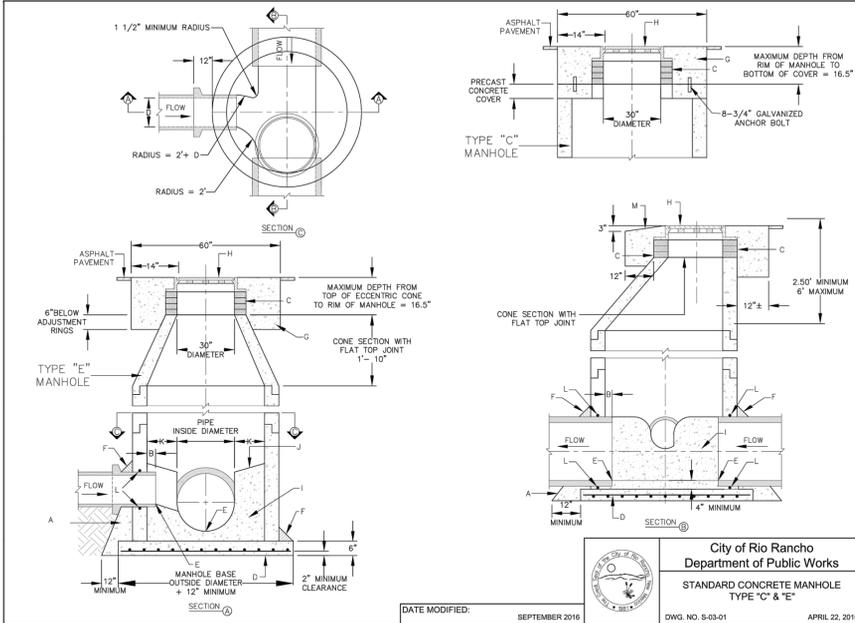


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 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -

SHEET: **10-7**

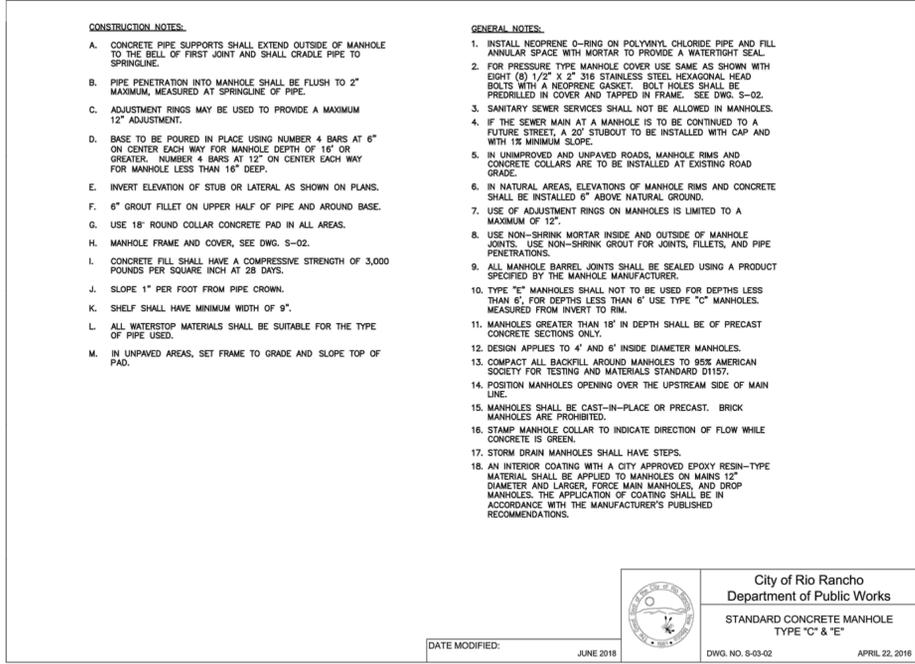


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City of Rio Rancho
Department of Public Works
STANDARD CONCRETE MANHOLE
TYPE "C" & "E"

DATE MODIFIED: SEPTEMBER 2016 DWG. NO. S-03-01 APRIL 22, 2016



City of Rio Rancho
Department of Public Works
STANDARD CONCRETE MANHOLE
TYPE "C" & "E"

DATE MODIFIED: JUNE 2018 DWG. NO. S-03-02 APRIL 22, 2016

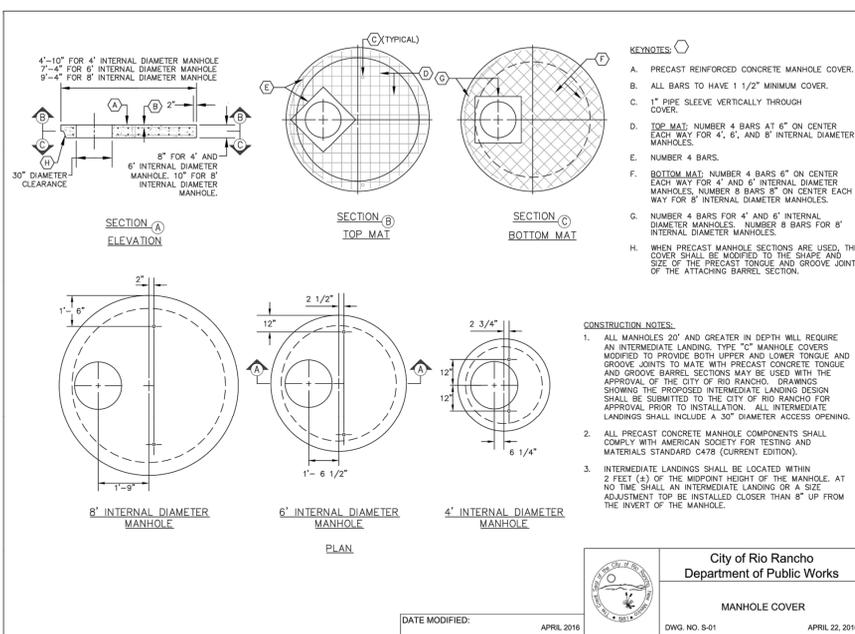
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STANDARD CONCRETE MANHOLE DETAIL - TYPE "C" & "E" A

N.T.S.

STANDARD CONCRETE MANHOLE DETAIL - TYPE "C" & "E" B

N.T.S.

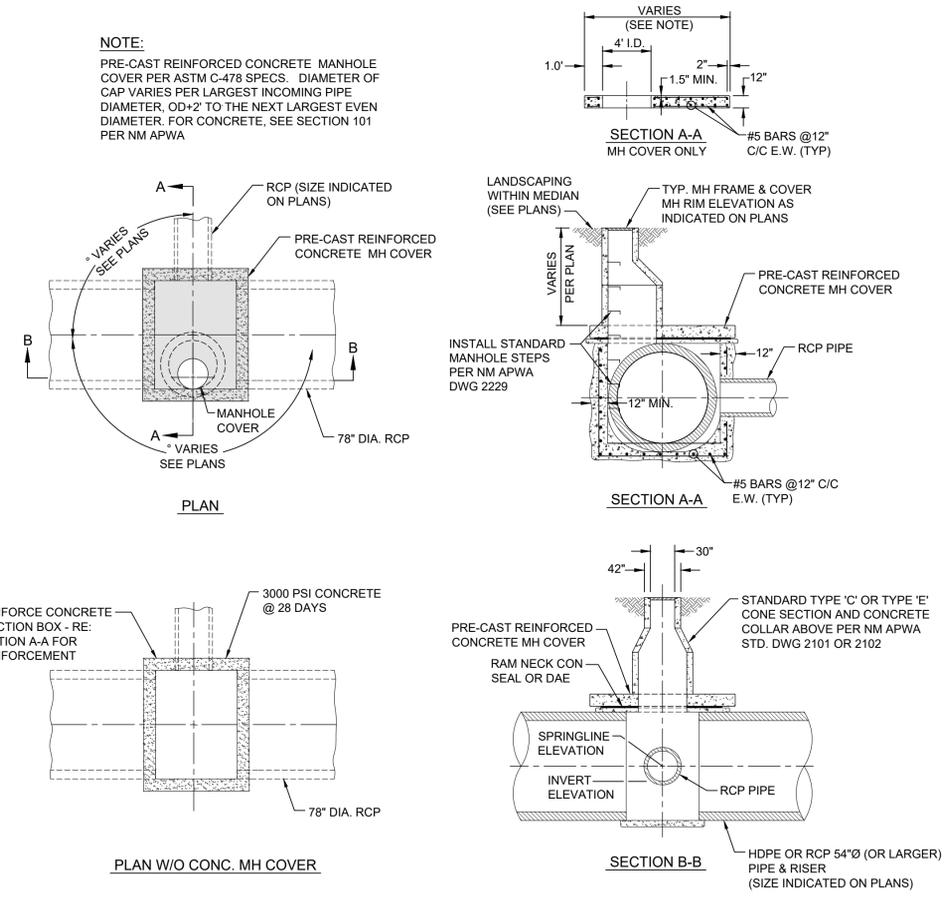


City of Rio Rancho
Department of Public Works
MANHOLE COVER

DATE MODIFIED: APRIL 2016 DWG. NO. S-01 APRIL 22, 2016

MANHOLE COVER DETAILS C

N.T.S.



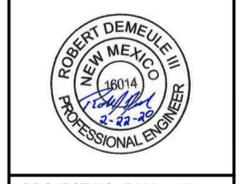
CAST-IN-PLACE JUNCTION BOX DETAILS D

N.T.S.

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Rio Rancho, New Mexico 87124
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City of Rio Rancho
Department of Public Works
STANDARD CONCRETE MANHOLE
TYPE "C" & "E"

INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
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SHEET: 10-8



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Last Saved: 2/22/2020 4:26:18 PM, rdemelle



NO.	DATE	DESCRIPTION	BY
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 Rio Rancho, New Mexico 87124
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DESIGNED FOR: **CITY OF RIO RANCHO**

DRAINAGE DETAILS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

ROBERT DEMEULEN III
 NEW MEXICO PROFESSIONAL ENGINEER
 38014
 4-28-20

PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: STAFF
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -
 SHEET: **10-9**



GENERAL NOTES:

- WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION CURRENT EDITION.
- SAFETY GRATES WILL NOT BE REQUIRED FOR OPENINGS EQUAL TO OR LESS THAN 30 INCHES IN THE DIRECTION OF TRAVEL FOR BLANKETS WITHOUT SAFETY GRATES. SEE STANDARD DRAWING 511-12A-1/2 THROUGH 511-12A-2/2.
- CONCRETE SHALL CONFORM TO SECTION 511 - CONCRETE STRUCTURES. CONCRETE SHALL BE CLASS A APPLY PENETRATING WATER REPELLENT PER SECTION 532.
- REINFORCING STEEL (REBAR) SHALL CONFORM TO SECTION 540 - STEEL REINFORCEMENT. REINFORCE CONCRETE BLANKETS WITH ONE (1) LAYER OF WELDED WIRE FABRIC. PLACE FABRIC IN THE CENTER OF THE CONCRETE BLANKET AND EXTEND INTO CUT-OFF WALL FULL DEPTH. FOR TYPICAL CONCRETE BLANKETS, REINFORCING BARS, WELDED WIRE MESH, AND ANCHORS SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.
- INSTALL SWELLABLE HYDROPHILIC WATERSTOP AT THE PIPE TO BLANKET INTERFACE IN ACCORDANCE WITH SECTION 511.
- PIPE SPACING FOR NEW NORMAL INSTALLATIONS, USE D + 3'-0". FOR EXTENSIONS OR MODIFICATIONS TO EXISTING CULVERT INSTALLATIONS MATCH EXISTING CULVERT PIPE SPACING.
- PIPE SPACING FOR NEW SKEWED CULVERT INSTALLATIONS USE (D + 3'-0")/COS θ. FOR EXTENSIONS OR MODIFICATIONS TO EXISTING CULVERT INSTALLATIONS, MATCH EXISTING CULVERT PIPE SPACING.
- NO JOINT SHALL BE ALLOWED IN THE BEVELED SECTION OF PIPE.
- FOR A, B, C, AND SL DIMENSIONS AND STEEL QUANTITY TABULATIONS SEE TABLES ON STANDARD DRAWINGS 511-16-1/1 THROUGH 511-19-1/1 - CONCRETE BLANKET SAFETY GRATE DETAILS.
- FOR D, ES, AND θ SEE ROADWAY DRAWINGS. WHEN EMBANKMENT SLOPE (ES) AT A STRUCTURE DIFFERS FROM THE ORDINARY ROADWAY EMBANKMENT SLOPE, THE CONTRACTOR WILL BE REQUIRED TO TRANSITION SLOPE AS SHOWN ON STANDARD DRAWING 511-14-4/4.
- FOR T, L, AND E DIMENSIONS SEE TABLES BELOW:

D (N.)	T	L					E											
		0'	5'	10'	15'	20'	25'	30'	35'	0'	5'	10'	15'	20'	25'	30'	35'	
30	B	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-9"	1'-11"	2'-2"	1'-6"	1'-8"	1'-10"	1'-12"	2'-4"	2'-6"	2'-8"	2'-10"	2'-12"
36	B	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-9"	1'-11"	2'-2"	1'-6"	1'-8"	1'-10"	1'-12"	2'-4"	2'-6"	2'-8"	2'-10"	2'-12"
42	B	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-9"	1'-11"	2'-2"	1'-6"	1'-8"	1'-10"	1'-12"	2'-4"	2'-6"	2'-8"	2'-10"	2'-12"
48	B	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-9"	1'-11"	2'-2"	1'-6"	1'-8"	1'-10"	1'-12"	2'-4"	2'-6"	2'-8"	2'-10"	2'-12"
54	B	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-9"	1'-11"	2'-2"	1'-6"	1'-8"	1'-10"	1'-12"	2'-4"	2'-6"	2'-8"	2'-10"	2'-12"
60	B	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-9"	1'-11"	2'-2"	1'-6"	1'-8"	1'-10"	1'-12"	2'-4"	2'-6"	2'-8"	2'-10"	2'-12"

12. FOR VOLUME OF CONCRETE FOR SINGLE PIPE CONCRETE BLANKETS WITH SAFETY GRATE, SEE TABLE BELOW:

D	CONCRETE QUANTITIES (CU.YDS.)															
	0'	5'	10'	15'	20'	25'	30'	35'	0'	5'	10'	15'	20'	25'	30'	35'
30	2.8	3.7	2.9	3.8	3.0	3.9	3.1	4.1	3.4	4.3	3.7	4.7	4.1	5.2	4.6	5.9
36	3.4	4.5	3.5	4.6	3.6	4.7	3.8	5.0	4.1	5.3	4.5	5.8	5.0	6.5	5.7	7.4
42	4.0	5.3	4.1	5.4	4.3	5.6	4.6	5.9	4.9	6.4	5.4	7.0	6.1	7.8	6.9	8.9
48	5.1	6.7	5.2	6.8	5.4	7.1	5.8	7.5	6.2	8.1	6.9	8.9	7.7	10.0	8.8	11.5
54	6.0	7.8	5.9	7.8	6.2	8.1	6.6	8.3	7.2	9.3	7.9	10.3	9.1	11.6	10.3	13.3
60	6.5	8.6	6.7	8.8	7.0	9.2	7.5	9.7	8.1	10.6	9.0	11.7	10.2	13.1	11.5	15.3

13. FOR VOLUME OF CONCRETE FOR DOUBLE PIPE CONCRETE BLANKETS WITH SAFETY GRATE, SEE TABLE BELOW:

D	CONCRETE QUANTITIES (CU.YDS.)															
	0'	5'	10'	15'	20'	25'	30'	35'	0'	5'	10'	15'	20'	25'	30'	35'
30	5.2	6.8	5.3	6.9	5.5	7.1	5.8	7.5	6.2	8.0	6.8	8.8	7.5	9.8	8.5	11.1
36	6.0	7.8	6.1	8.0	6.3	8.3	6.7	8.7	7.2	9.4	7.9	10.3	8.9	11.5	10.1	13.2
42	6.7	8.8	6.9	9.0	7.2	9.3	7.6	9.9	8.3	10.7	9.1	11.8	10.3	13.1	11.5	15.3
48	8.1	10.7	8.3	10.9	8.7	11.4	9.2	12.1	10.0	13.1	11.4	14.5	12.5	16.3	14.5	18.9
54	8.9	11.7	9.1	12.0	9.6	12.5	10.2	13.3	11.2	14.5	12.4	15.6	14.1	18.3	16.4	21.3
60	9.6	12.7	9.9	13.0	10.4	13.6	11.2	14.5	12.3	15.9	13.7	17.1	15.1	20.0	17.8	23.3

14. TO DETERMINE THE VOLUME OF CONCRETE (CU.YDS.) FOR INSTALLATION OF 3 OR MORE PIPES, USE THE FOLLOWING FORMULA:
 $V_{total} = V_1 + (V_2 - V_1) \times (N - 2)$
 WHERE:
 V_1 = VOL. CONCRETE SINGLE PIPE INSTALLATION (CU.YDS.)
 V_2 = VOL. CONCRETE DOUBLE PIPE INSTALLATION (CU.YDS.)
 (SEE STANDARD DRAWING 511-14-3/4 FOR DIMENSIONS)
 N = NUMBER OF PIPES WHICH MUST BE GREATER THAN 2

THIS STANDARD DRAWING IS FOR USE ON INDOT PROJECTS OTHER THAN INDOT STANDARD DRAWINGS. INDOT STANDARD DRAWINGS DO NOT APPLY TO THIS PROJECT. THE USER SHALL BE RESPONSIBLE FOR DETERMINING THE APPLICABILITY OF THIS STANDARD DRAWING TO THEIR PROJECT.

NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

MULTIPLE METAL PIPE CONCRETE BLANKET WITH SAFETY GRATE (NORMAL & 5' TO 35')

511-14-1/4 1 of 4



METAL PIPE CONCRETE BLANKET WITH SAFETY GRATE DETAIL

N.T.S.

A

METAL PIPE CONCRETE BLANKET WITH SAFETY GRATE DETAIL

N.T.S.

B

END OF CULVERT PIPE (TYP.)
 3" STD. WT. PIPE (SAFETY GRATE PIPE)
 SWELLABLE HYDROPHILIC WATERSTOP (TYP.)
 1" MIN.
 ES = EMBANKMENT SLOPE
 FORM EDGE OF OPENING
 TS 4x4x0.375" (CROSS MEMBER)
 1 LAYER 6x6-W2.9W2.9 WELDED WIRE FABRIC (CENTER IN 6" BLANKET)

FOR DETAILS SEE STANDARD 511-14-4/4

FOR DETAILS SEE STANDARD 511-14-4/4

SWELLABLE HYDROPHILIC WATERSTOP (TYP.)
 3" STD. WT. PIPE (SAFETY GRATE PIPE)
 1" MIN.
 ES = EMBANKMENT SLOPE
 TS 4x4x0.375" (CROSS MEMBER)

1 LAYER 6x6-W2.9W2.9 WELDED WIRE FABRIC (CENTER IN 6" BLANKET)

NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

MULTIPLE METAL PIPE CONCRETE BLANKET WITH SAFETY GRATE (NORMAL & 5' TO 35')

511-14-3/4 3 of 4

METAL PIPE CONCRETE BLANKET WITH SAFETY GRATE DETAIL

N.T.S.

C

ANCHOR NOTES:

- ALL RODS, NUTS, AND BOLTS SHALL BE ZINC COATED.
- THE CORRUGATED METAL PIPE (CMP) SHALL BE ANCHORED TO THE BLANKET WITH DOUBLE-THREADED ROD. FOR SPACING AND LOCATION OF THESE ANCHORS, SEE "ANCHOR LOCATION TABLE".
- ALL THREADED ROD ANCHORS AT THE SAFETY GRATE ELEMENTS SHALL BE PER SECTION 523 - CEMENTITIOUS-CROUDED DOWELS AND ANCHORS.
- THE STEEL ROD ANCHORS SHALL BE PER SECTION 541 - STEEL STRUCTURES AND SHALL BE EMBEDDED IN THE CONCRETE AT THE TIME OF PLACEMENT.
- AFTER INSTALLATION OF SAFETY GRATE THROUGH STEEL ANCHOR ROD LOOP, PLACE GROUT TO PROVIDE BEARING SURFACE FOR SAFETY GRATE. GROUT TO BE PER SECTION 521.
- TOP OF CONCRETE BLANKET AND TOP OF SAFETY GRATE MUST LIE IN THE SAME PLANE WITHIN 45".
- FURNISH AND INSTALL ALL ANCHORS SHALL BE INCIDENTAL TO THE CONCRETE PAY ITEM, NO ADDITIONAL PAYMENT WILL BE MADE.

ANCHOR BOLT DETAIL @ SAFETY GRATE PIPE PLAN
 ANCHOR BOLT DETAIL @ CROSS MEMBER PLAN

SECTION C-C (STEEL ROD ANCHOR DETAILS AT OUTLET)
 SECTION F-F
 SECTION G-G

SAFETY GRATE PIPE AND CROSS MEMBER CONNECTION
 CMP ANCHOR DETAIL

LOCATION OF ANCHORS NEAR END OF CULVERT PIPE

D (N.)	a (N.)	b (N.)
24	2	3
30-42	3	8
48-60	4	12

NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

TYPICAL CONCRETE BLANKET DETAILS

511-14-4/4 4 of 4

TYPICAL CONCRETE BLANKET DETAIL

N.T.S.

D

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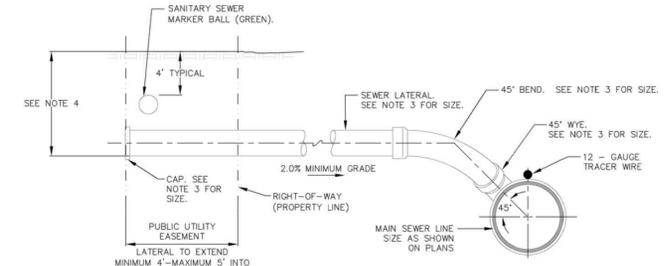
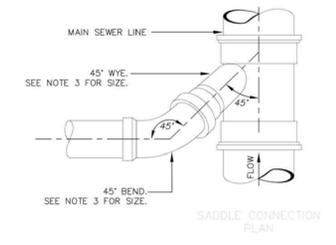
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 HUIT-ZOJARS, INC.
 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3259

City of Rio Rancho
 Department of Public Works
 TYPICAL NEW SEWER LATERAL CONNECTION

DRAINAGE DETAILS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

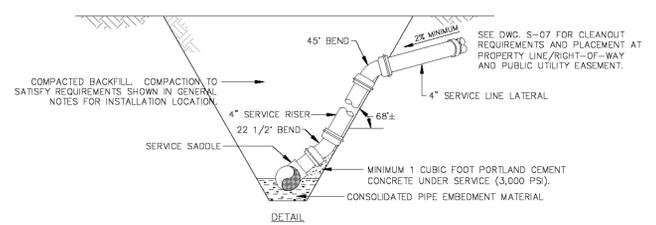


PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 10-10



- NOTES:**
- CONSTRUCT SEWER LATERAL AT THE STATION OR LOCATION BY DIMENSION AS SHOWN ON PLANS.
 - ALL SEWER LATERALS SHALL BE STAMPED WITH AN "S" IN THE GUTTER PAN AND TOP OF CURB DIRECTLY OVER THE LATERAL WHILE CONCRETE IS GREEN.
 - MULTI-FAMILY SERVICES:
 NUMBER OF UNITS PER SERVICE SERVICE SIZE
 1 TO 2 DWELLING UNITS 4" SERVICE LINE
 3 TO 4 DWELLING UNITS 6" SERVICE LINE
 OVER 4 DWELLING UNITS CONTACT CITY OF RIO RANCHO UTILITIES DEPARTMENT
 - SEWER LATERAL DEPTH AT THE PROPERTY LINE SHALL BE A MAXIMUM OF 7 FEET AND A MINIMUM OF 5 FEET UNLESS OTHERWISE SHOWN ON THE PLANS.
 - REFER TO SECTION 905 OF THE CITY OF RIO RANCHO STANDARD SPECIFICATIONS, AS AMENDED, FOR ADDITIONAL REQUIREMENTS FOR SERVICE SADDLE, SERVICE RISER, AND SERVICE LINE LATERAL MATERIAL REQUIREMENTS TO RIGHT-OF-WAY.

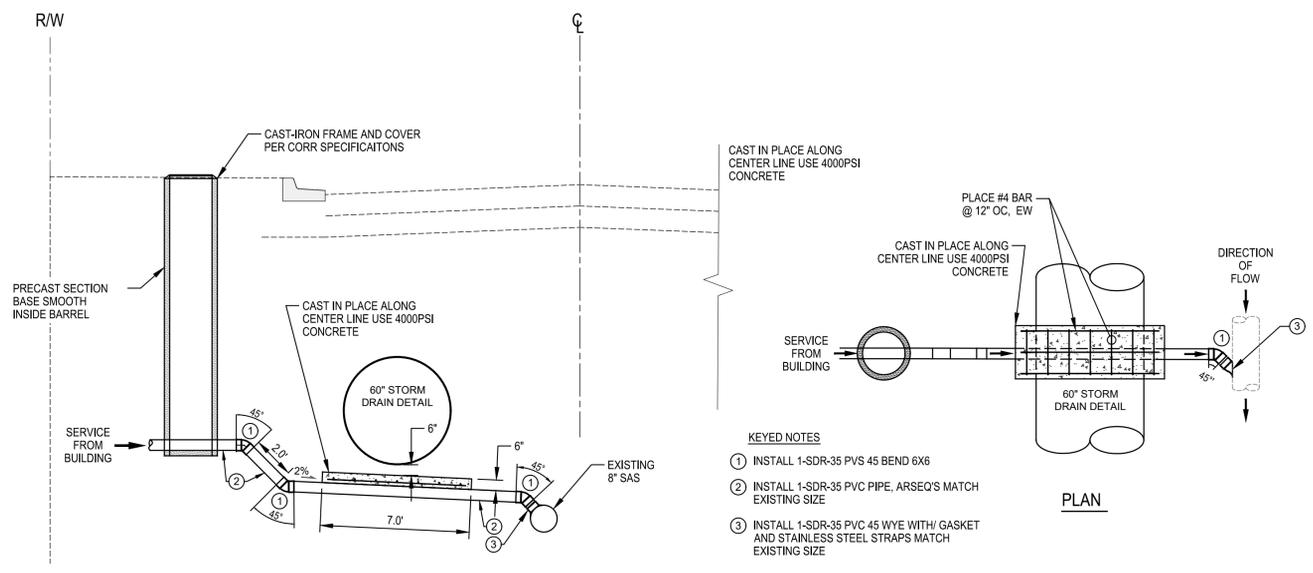
TYPICAL NEW SEWER LATERAL CONNECTION DETAIL
 N.T.S.



- GENERAL NOTES:**
- REFER TO SECTION 905 OF THE CITY OF RIO RANCHO STANDARD SPECIFICATIONS, AS AMENDED, FOR ADDITIONAL REQUIREMENTS FOR SERVICE SADDLE, SERVICE RISER, AND SERVICE LINE LATERAL MATERIAL REQUIREMENTS TO RIGHT-OF-WAY.
 - TRENCH EXCAVATIONS SHALL AT ALL TIMES CONFORM TO "STANDARDS - 29 CFR PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION".

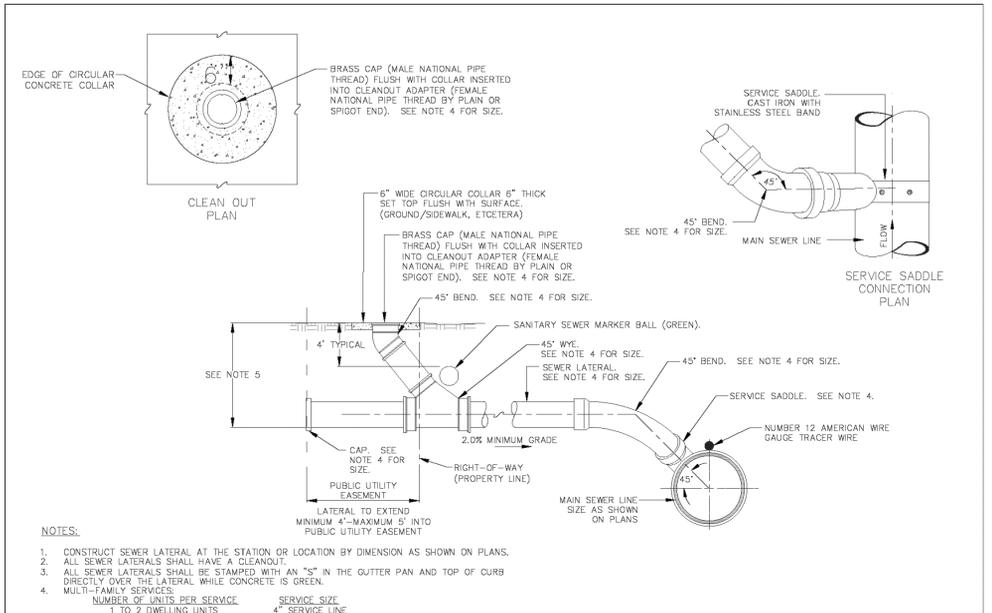
City of Rio Rancho
 Department of Public Works
 STANDARD SEWER SERVICE CONNECTION

STANDARD SEWER CONNECTION DETAIL
 N.T.S.



- KEYED NOTES**
- INSTALL 1-SDR-35 PVS 45 BEND 6X6
 - INSTALL 1-SDR-35 PVC PIPE, ARSEQ'S MATCH EXISTING SIZE
 - INSTALL 1-SDR-35 PVC 45 WYE WITH/ GASKET AND STAINLESS STEEL STRAPS MATCH EXISTING SIZE

SANITARY SEWER SAMPLING PORT DETAIL
 N.T.S.

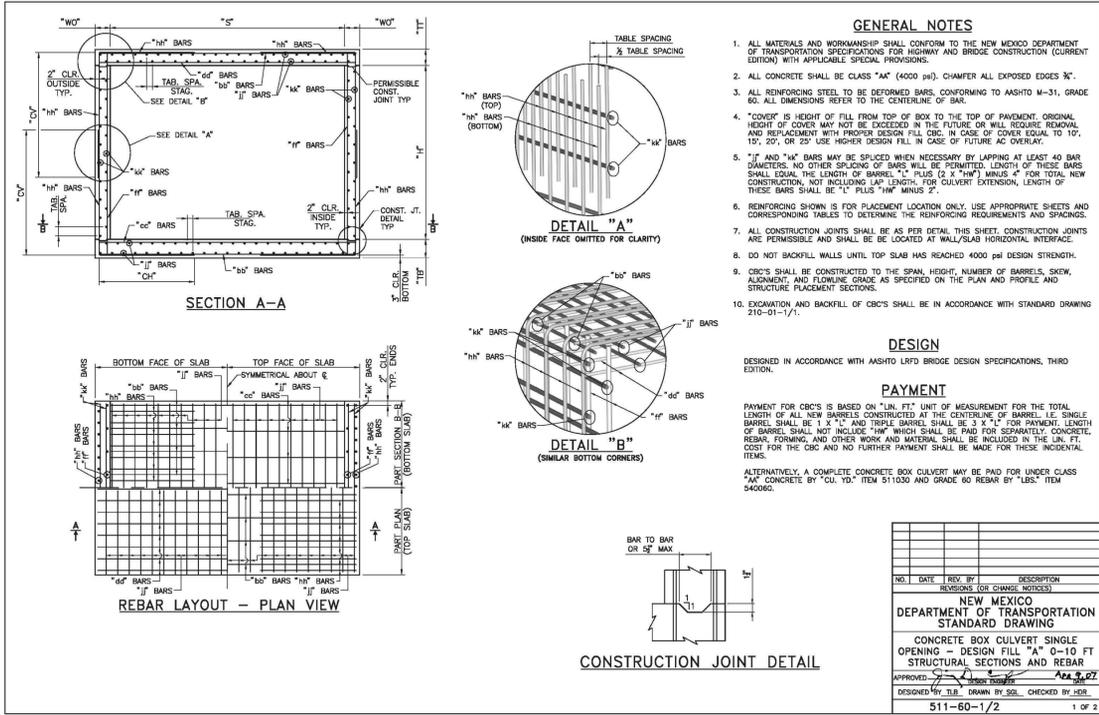


- NOTES:**
- CONSTRUCT SEWER LATERAL AT THE STATION OR LOCATION BY DIMENSION AS SHOWN ON PLANS.
 - ALL SEWER LATERALS SHALL HAVE A CLEANOUT.
 - ALL SEWER LATERALS SHALL BE STAMPED WITH AN "S" IN THE GUTTER PAN AND TOP OF CURB DIRECTLY OVER THE LATERAL WHILE CONCRETE IS GREEN.
 - MULTI-FAMILY SERVICES:
 NUMBER OF UNITS PER SERVICE SERVICE SIZE
 1 TO 2 DWELLING UNITS 4" SERVICE LINE
 3 TO 4 DWELLING UNITS 6" SERVICE LINE
 OVER 4 DWELLING UNITS CONTACT CITY OF RIO RANCHO UTILITIES DEPARTMENT
 - SEWER LATERAL DEPTH AT THE PROPERTY LINE SHALL BE A MAXIMUM OF 7 FEET AND A MINIMUM OF 5 FEET UNLESS OTHERWISE SHOWN ON THE PLANS.
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City of Rio Rancho
 Department of Public Works
 TYPICAL EXISTING SEWER LATERAL CONNECTION

TYPICAL EXISTING SEWER LATERAL CONNECTION DETAIL
 N.T.S.

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CONCRETE BOX CULVERT DETAIL



CONCRETE BOX CULVERT DETAIL



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City of Rio Rancho
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
 DESIGNED BY: GM
 DRAWN BY: STAFF
 CHECKED BY: RJD
 DATE: FEB 2020
 DPW CHK: -
 SHEET: **10-11**



NO.	DATE	REV. BY	DESCRIPTION
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REVISIONS (OR CHANGE NOTICES)



NO.	DESCRIPTION (OR CHANGE NOTICES)	DATE	BY
7			
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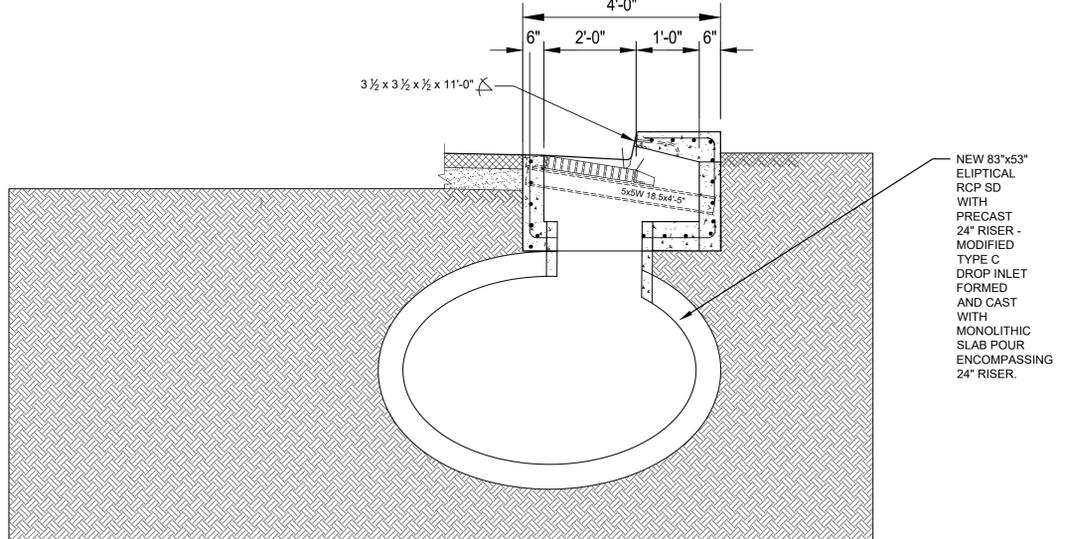
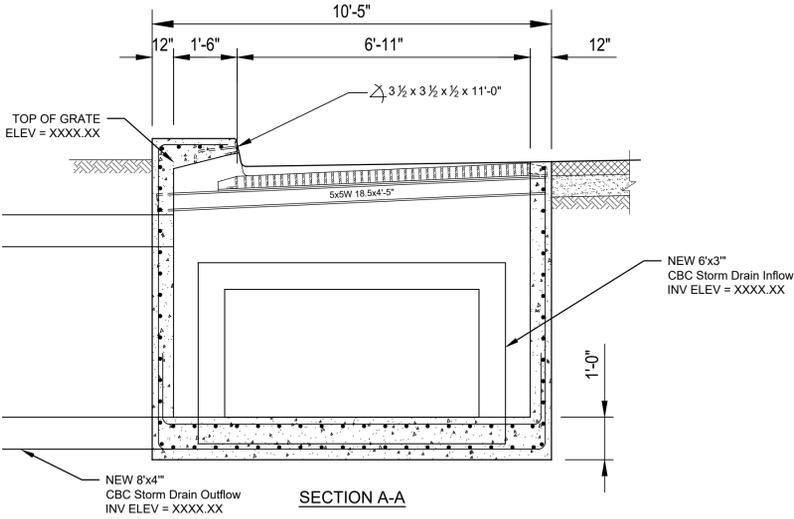
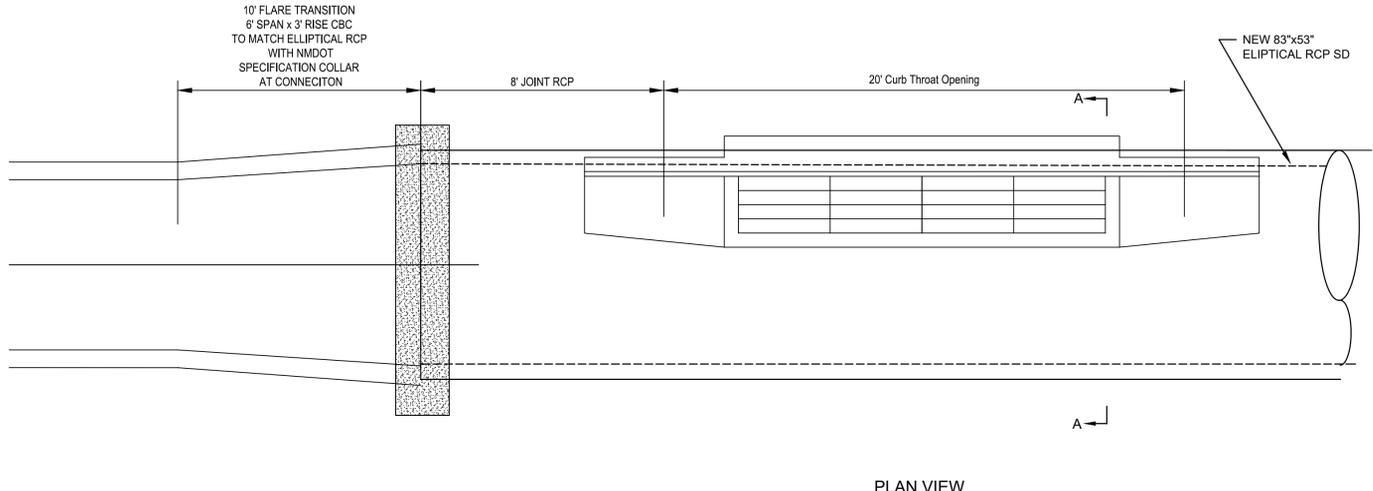
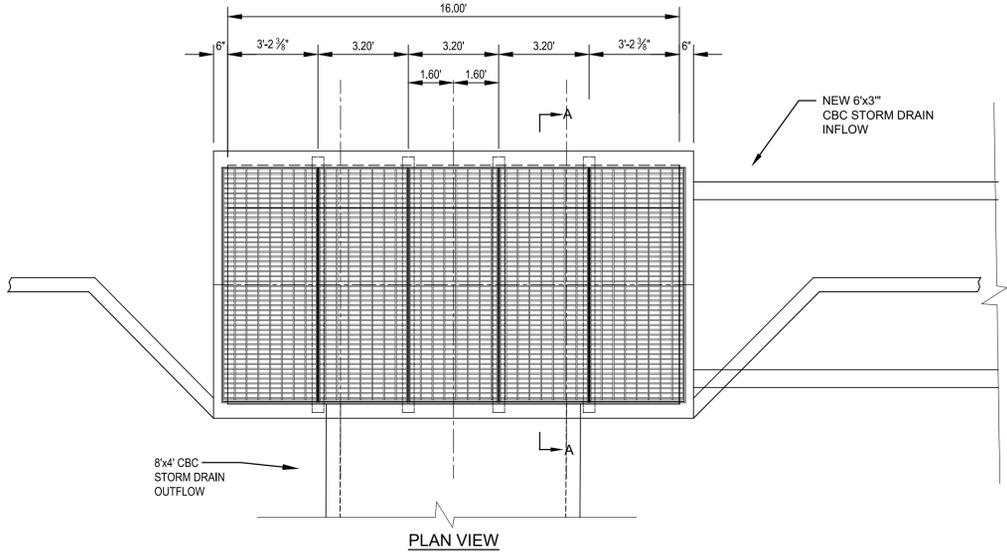
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CITY OF RIO RANCHO

DRAINAGE DETAILS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



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DESIGNED BY: GM
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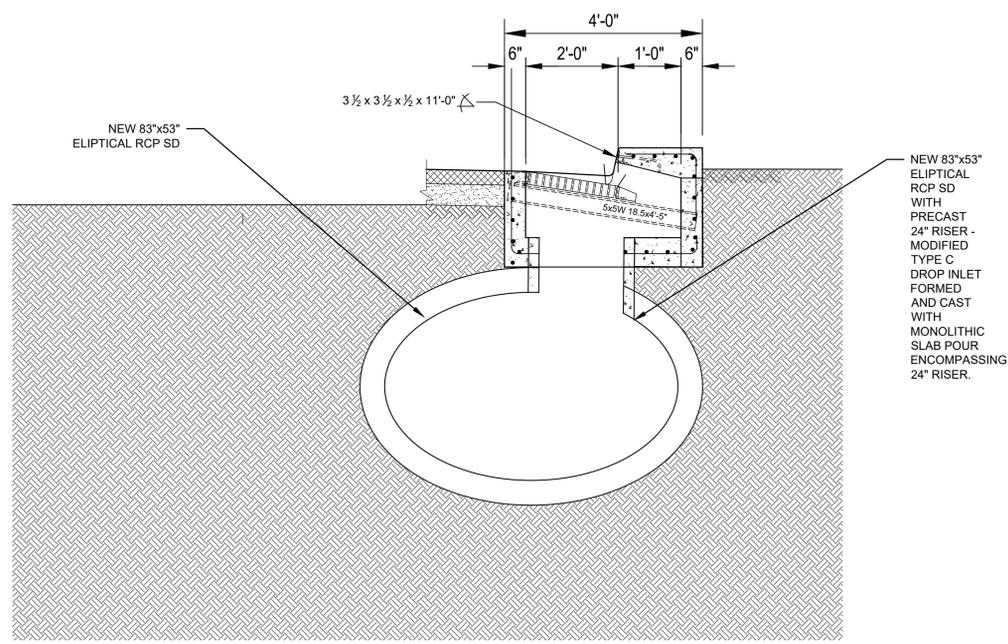
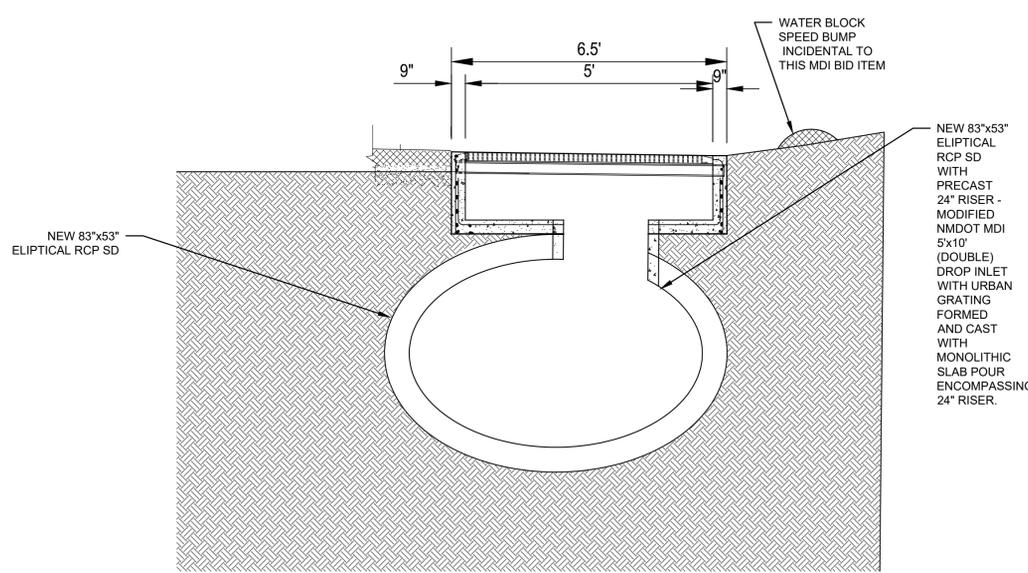
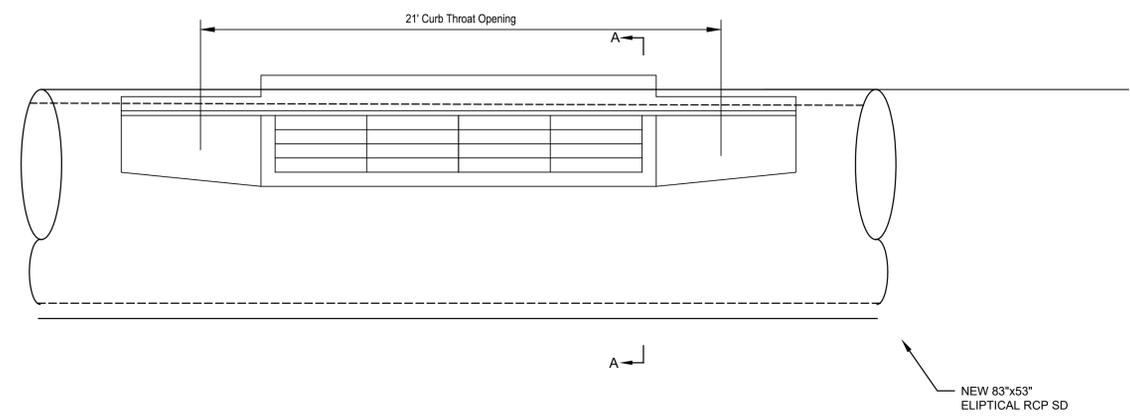
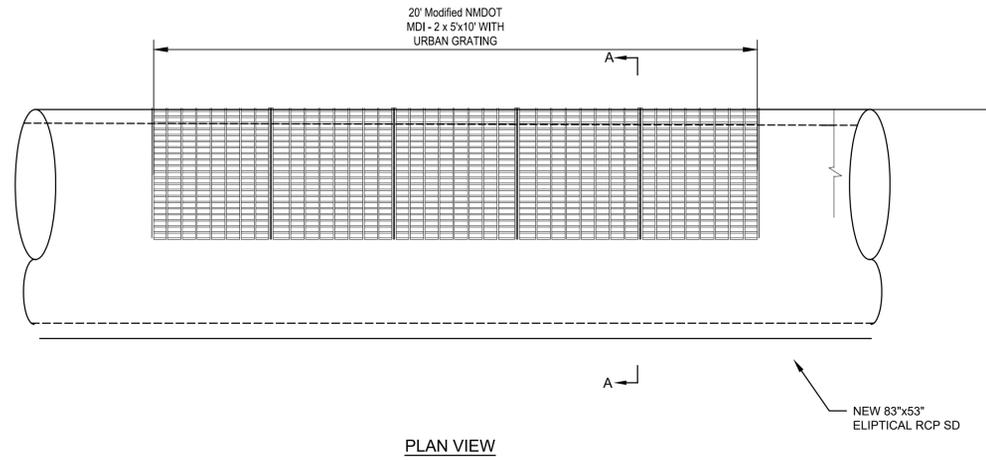
SHEET:
10-12



STORM DRAIN JUNCTION BOX DETAILS - STA. 29+99.01
 N.T.S. A

MODIFIED TYPE "C" INLET DETAILS @ ENTERPRISE RD
 Sta. 32+75.49 B
 N.T.S.

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MODIFIED MDI INLET DETAILS
@ ENTERPRISE RD AND @ COMMERCE PL

MODIFIED TYPE "C" INLET DETAILS
@ ENTERPRISE RD AND @ COMMERCE PL

STA. 33+02.11

STA. 37+64.38

N.T.S.

N.T.S.

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DRAINAGE DETAILS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

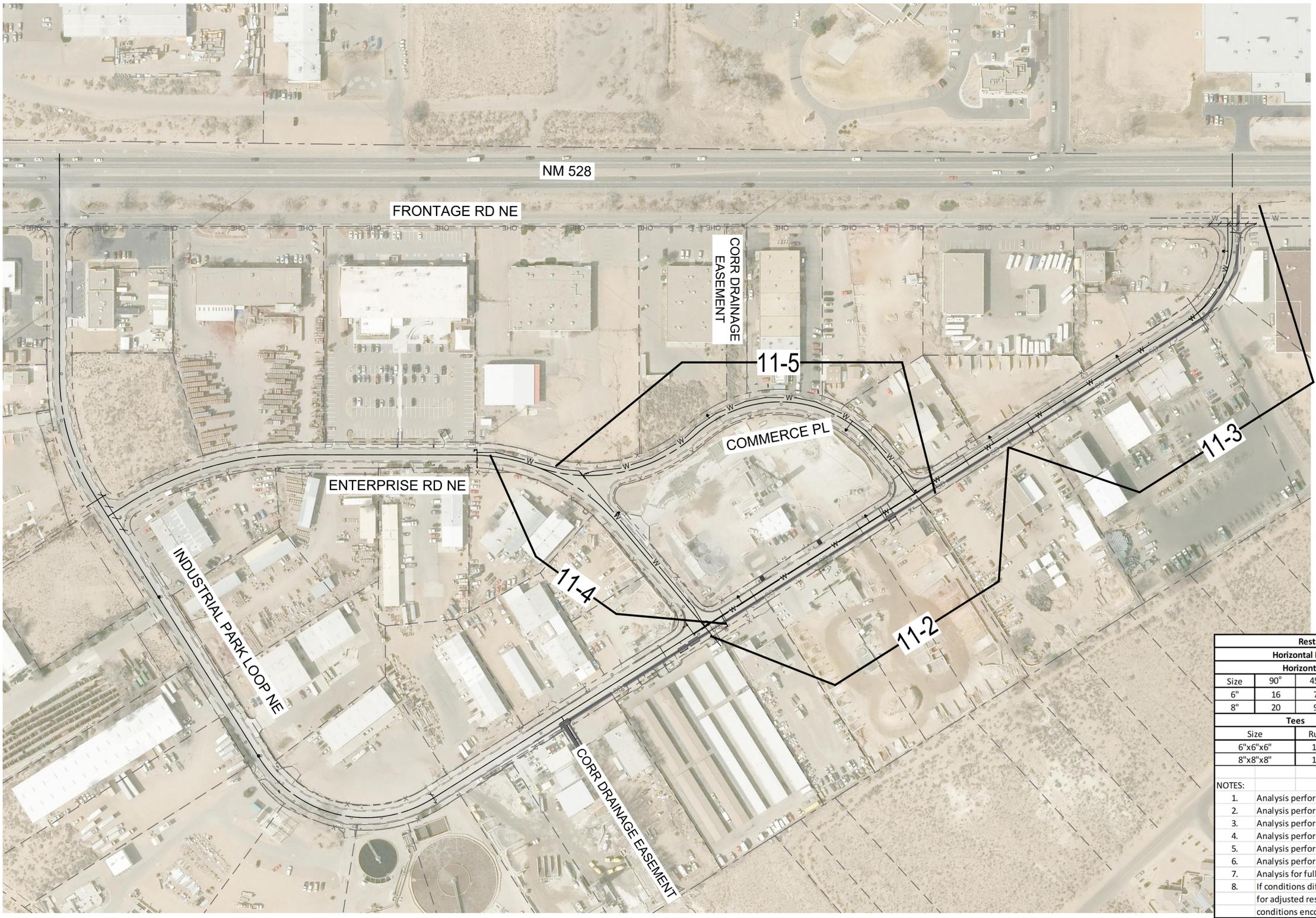
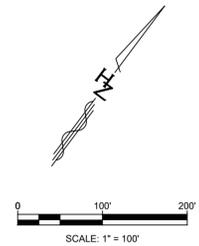


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Restrained Joint Lengths, ft						
Horizontal Bends, Valves, and Dead Ends						
Size	Horizontal Bends				Valves and Dead Ends	
	90°	45°	22-1/2°	11-1/4°		
6"	16	7	4	2	42	
8"	20	9	4	2	55	
Tees						
Size	Run	Branch				
6"x6"x6"	10	1				
8"x8"x8"	10	3				

NOTES:

1. Analysis performed for 4' bury to top of pipe.
2. Analysis performed for type SM soil.
3. Analysis performed using Type 4 trench.
4. Analysis performed using 1.5 safety factor.
5. Analysis performed using 150 psi test pressure.
6. Analysis performed for PVC pipe only.
7. Analysis for full 10' pipe length each side of tee on run.
8. If conditions differ, Contractor shall submit calculations for adjusted restrained length requirements based on conditions encountered.

JOINT RESTRAINT TABLE

WATER SYSTEM IMPROVEMENT DESCRIPTION

A NEW WATER MAIN IN INDUSTRIAL PARK LOOP, INSTALLED WITHIN THE STREET PAVEMENT AREA. THE EXISTING WATER MAIN WILL BE ABANDONED IN PLACE. NEW SERVICE LATERALS WILL BE CONNECTED TO THE NEW WATER MAIN AND ATTACHED TO THE EXISTING WATER METERS AT ALL BUSINESSES.

NO.	DESCRIPTION	DATE	BY
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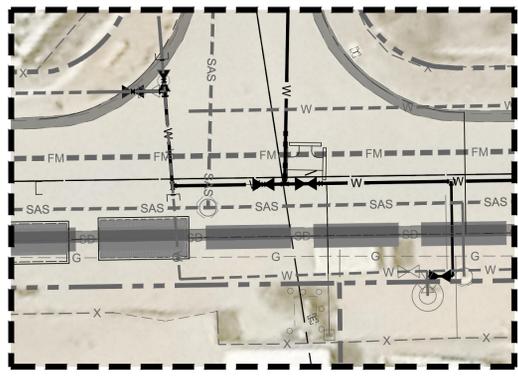
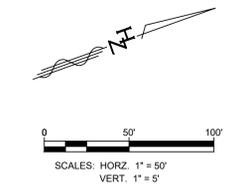
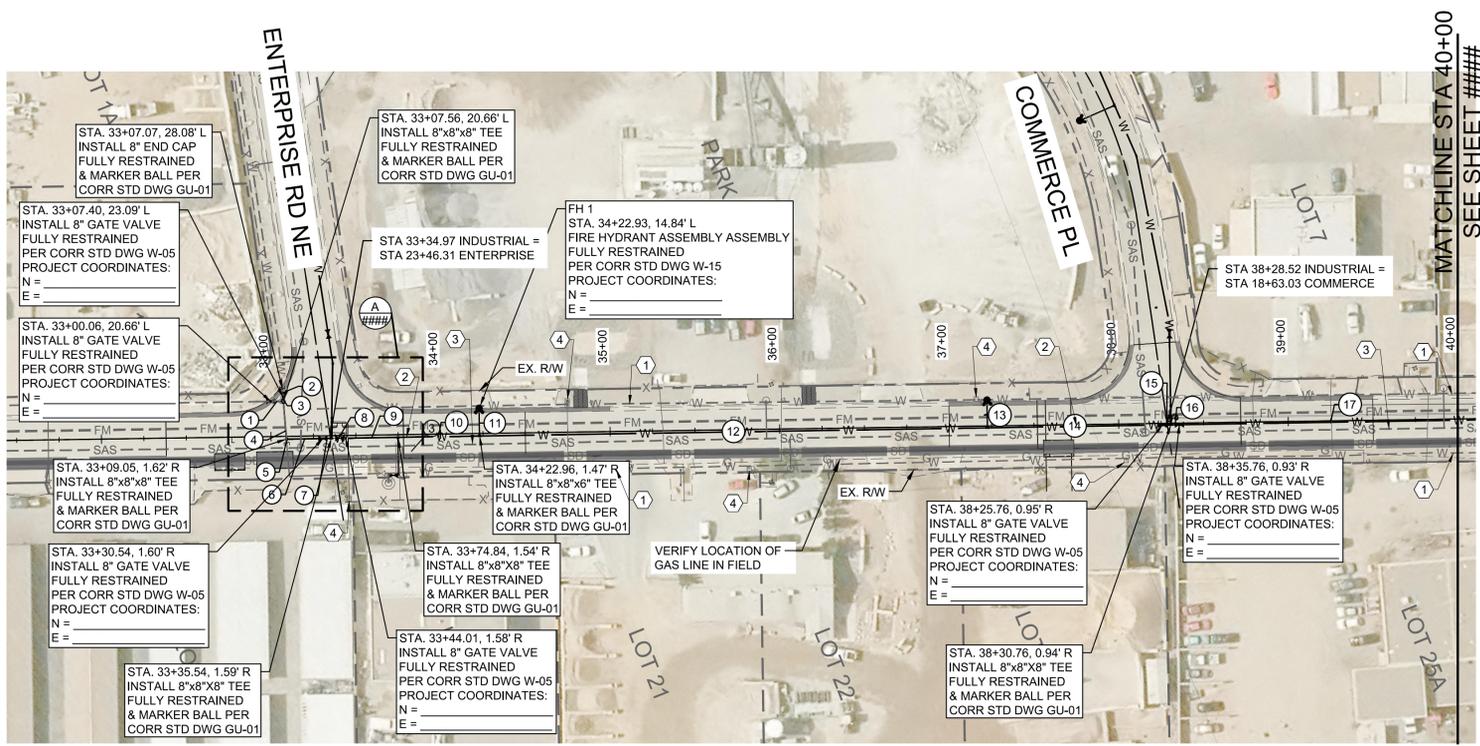
COMPOSITE UTILITY PLAN

INDUSTRIAL PARK
 ROAD & UTILITY IMPROVEMENTS
 RIO RANCHO, NEW MEXICO



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ENLARGED PLAN
SCALE: 1" = 20'

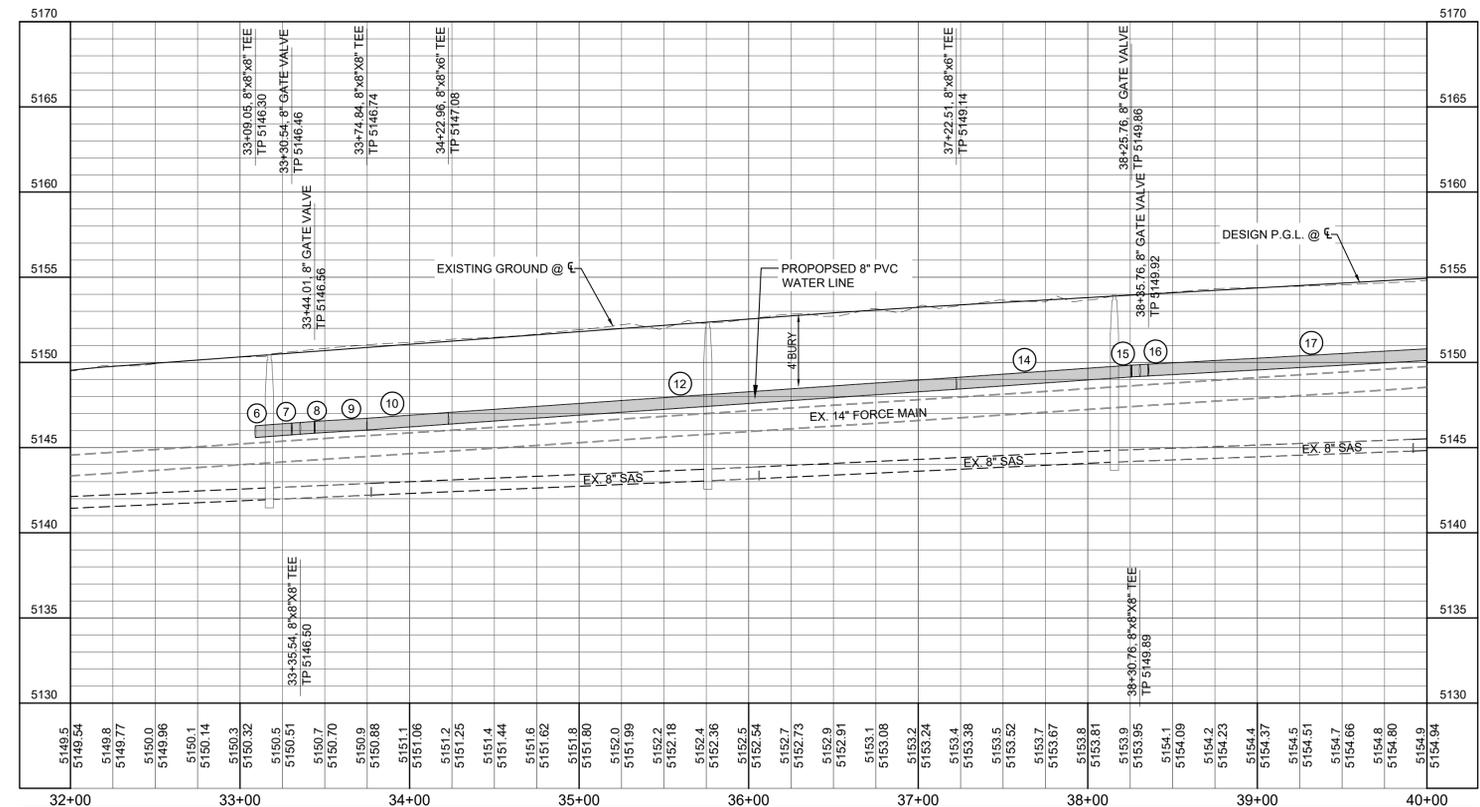
EXISTING WATER SERVICES

STATION	SERVICE SIZE
34+40%P, R	1"
34+75.14, 18.35'L	2"
35+81.69, 23.18'R	3"
36+57%P, R	3"
38+04.12, 21.47'R	5/8"
39+90%P, R	1"
41+13.62, 23.26'R	2-1"

- CONSTRUCTION NOTES**
- EXISTING 6" DRAINED WATER LINE TO BE CUT AND CAPPED AND ABANDONED IN PLACE.
 - INSTALL 8" PVC WATER LINE PER DETAIL.
 - EXISTING SANITARY SEWER LINE, PROTECT IN PLACE.
 - EXISTING WATER METER, RECONNECT TO NEW WATER LINE WITH NEW SERVICE.

- LEGEND**
- EX. RIGHT-OF-WAY
 - EX. CURB & GUTTER
 - EX. SIGN
 - EX. SEWER MANHOLE
 - EX. GAS VALVE
 - EX. WATER VALVE
 - EX. FIRE HYDRANT
 - EX. GAS LINE
 - EX. WATER LINE
 - EX. SEWER LINE
 - EX. UNDERGROUND ELECTRIC
 - EX. TELECOM
 - CENTERLINE
 - EXISTING WATER METER
 - PROPOSED WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN MANHOLE
 - PROPOSED WATER VALVE

INDUSTRIAL PARK LOOP NE



WATER LINE DATA

PIPE	PIPE DIA	BEARING	LENGTH
1	8"	N20° 46' 46"E	7.50'
2	8"	S73° 02' 35"E	5.00'
3	8"	S72° 58' 55"E	2.44'
4	8"	S73° 01' 23"E	22.33'
5	8"	S73° 01' 23"E	2.00'
6	8"	N20° 42' 38"E	21.50'
7	8"	N20° 42' 38"E	5.00'
8	8"	N20° 42' 38"E	8.46'
9	8"	N20° 42' 38"E	30.83'
10	8"	N20° 42' 38"E	48.12'
11	6"	N69° 17' 22"W	16.31'
12	8"	N20° 42' 51"E	299.56'
13	6"	N69° 17' 22"W	16.31'
14	8"	N20° 42' 00"E	103.25'
15	8"	N20° 42' 38"E	5.00'
16	8"	N20° 42' 38"E	5.00'
17	8"	N20° 42' 38"E	178.42'

- GENERAL NOTES:**
- LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO BEGINNING WORK. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON AVAILABLE RECORD INFORMATION, ABOVE GROUND FEATURES VISIBLE IN THE FIELD, AND VERBAL DESCRIPTIONS BY THE CITY OF RIO RANCHO. IN THE EVENT CONDITIONS IN THE FIELD ARE NOT AS SHOWN ON THE DRAWINGS, CONTRACTOR SHALL NOTIFY THE PUBLIC INFRASTRUCTURE PROJECT MANAGER IMMEDIATELY SO THE NECESSARY CHANGES TO THE DESIGN MAY BE MADE WITH A MINIMUM OF INTERRUPTION TO THE PROJECT SCHEDULE.
 - HORIZONTAL EXISTING UTILITY INFORMATION AS PER AS-BUILT INFORMATION AND SURVEY. NO VERTICAL AS-BUILT INFORMATION WAS AVAILABLE FOR WATERLINES; 4 FOOT BURY BELOW CURRENT EXISTING SURFACE WAS ASSUMED.
 - ALL WATER SERVICE LINES ARE TO BE REPLACED AS PER CORR STD DWGS W-06 AND W-09. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND DISTURBED LANDSCAPING.
 - WATERLINES BEING REPLACED ARE TO BE ABANDONED IN PLACE.
 - CONTRACTOR TO SUBMIT VALVE CLOSURE PLAN TO CORR FOR APPROVAL PRIOR TO MAKING CONNECTIONS OR OPENING/CLOSING VALVES.
 - EXISTING WATER SYSTEM TO REMAIN IN SERVICE UNTIL THE NEW WATER SYSTEM IS ACCEPTED.

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City of Rio Rancho

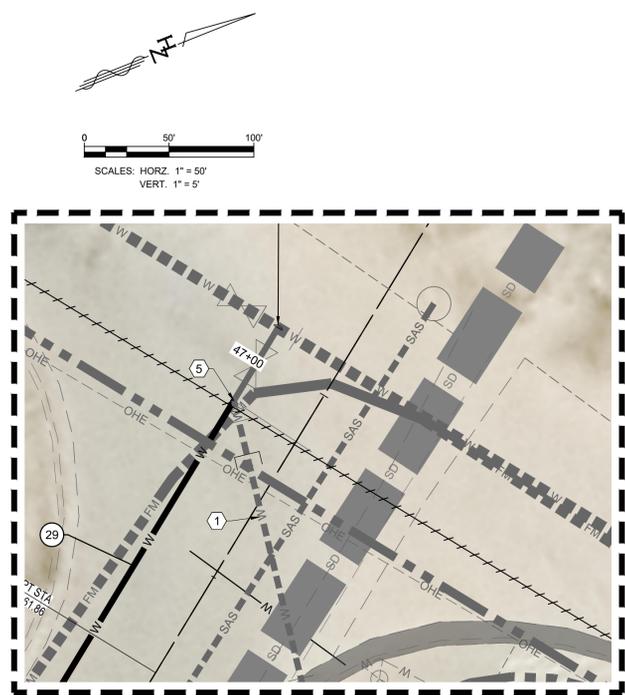
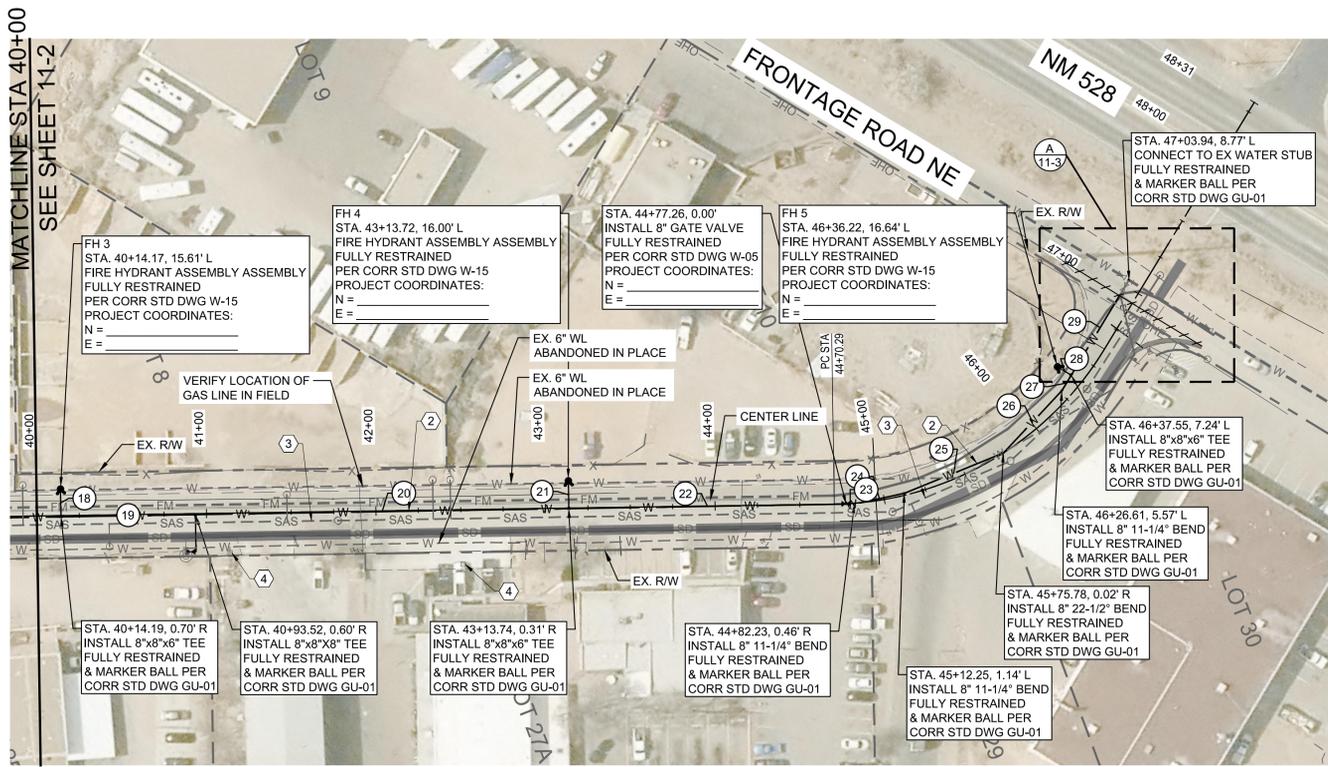
WATERLINE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



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ENLARGED PLAN
SCALE: 1" = 20'

EXISTING WATER SERVICES

STATION	SERVICE SIZE
34+40%P, R	1"
34+75.14, 18.35' L	2"
35+81.69, 23.16' R	3"
36+57%P, R	3"
38+04.12, 21.47' R	5/8"
39+90%P, R	1"
41+13.62, 23.26' R	2-1"

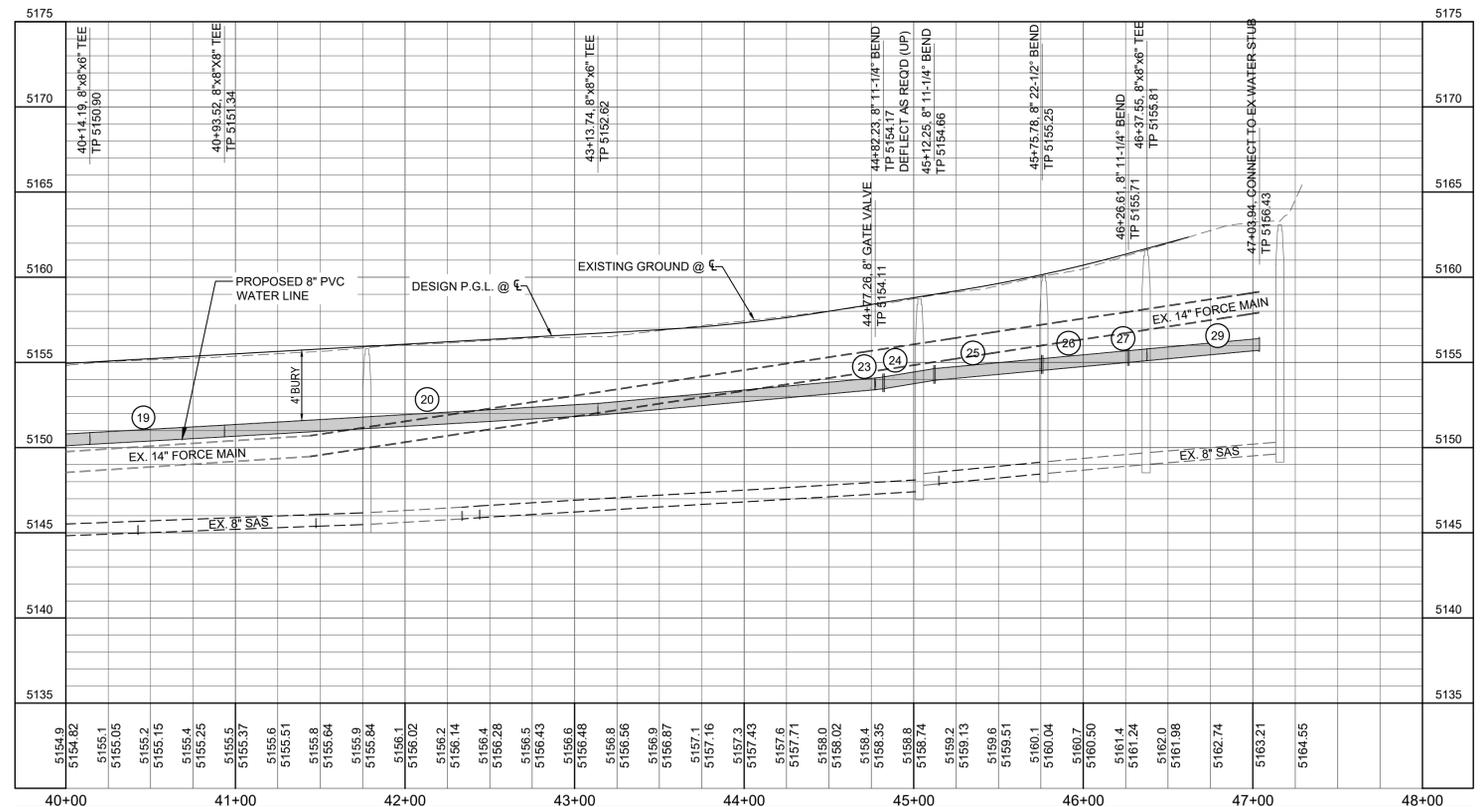
CONSTRUCTION NOTES

- EXISTING 6" DRAINED WATER LINE TO BE CUT AND CAPPED AND ABANDONED IN PLACE.
- INSTALL 8" PVC WATER LINE PER DETAIL.
- EXISTING SANITARY SEWER LINE, PROTECT IN PLACE.
- EXISTING WATER METER, RECONNECT TO NEW WATER LINE WITH NEW SERVICE.
- REMOVE EXISTING 8", 45' BEND AND CONNECT NEW WATERLINE TO EXISTING 8" GATE VALVE.

LEGEND

- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- EX. SIGN
- ⊙ EX. SEWER MANHOLE
- ⊗ EX. GAS VALVE
- ⊗ EX. WATER VALVE
- ⊙ EX. FIRE HYDRANT
- EX. GAS LINE
- EX. WATER LINE
- SAS EX. SEWER LINE
- UGE EX. UNDERGROUND ELECTRIC
- TELE EX. TELECOM
- CENTERLINE
- WM EXISTING WATER METER
- PROPOSED WATER LINE
- PROPOSED STORM DRAIN
- ⊙ PROPOSED STORM DRAIN MANHOLE
- ⊗ PROPOSED WATER VALVE

INDUSTRIAL PARK LOOP NE



WATER LINE DATA

PIPE	PIPE DIA	BEARING	LENGTH
18	6"	N69° 17' 22"W	16.31'
19	8"	N20° 42' 38"E	79.34'
20	8"	N20° 42' 38"E	220.22'
21	6"	N69° 17' 22"W	16.31'
22	8"	N20° 38' 00"E	163.52'
23	8"	N23° 14' 10"E	5.00'
24	8"	N09° 36' 10"E	29.97'
25	8"	N00° 24' 09"W	63.06'
26	8"	N25° 01' 21"W	50.25'
27	8"	N37° 00' 31"W	10.70'
28	6"	S52° 59' 29"W	9.48'
29	8"	N37° 00' 31"W	65.40'

GENERAL NOTES:

- LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO BEGINNING WORK. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON AVAILABLE RECORD INFORMATION, ABOVE GROUND FEATURES VISIBLE IN THE FIELD, AND VERBAL DESCRIPTIONS BY THE CITY OF RIO RANCHO. IN THE EVENT CONDITIONS IN THE FIELD ARE NOT AS SHOWN ON THE DRAWINGS, CONTRACTOR SHALL NOTIFY THE PUBLIC INFRASTRUCTURE PROJECT MANAGER IMMEDIATELY SO THE NECESSARY CHANGES TO THE DESIGN MAY BE MADE WITH A MINIMUM OF INTERRUPTION TO THE PROJECT SCHEDULE.
- HORIZONTAL EXISTING UTILITY INFORMATION AS PER AS-BUILT INFORMATION AND SURVEY. NO VERTICAL AS-BUILT INFORMATION WAS AVAILABLE FOR WATERLINES; 4 FOOT BURY BELOW CURRENT EXISTING SURFACE WAS ASSUMED.
- ALL WATER SERVICE LINES ARE TO BE REPLACED AS PER CORR STD DWGS W-06 AND W-09. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND DISTURBED LANDSCAPING.
- WATERLINES BEING REPLACED ARE TO BE ABANDONED IN PLACE.
- CONTRACTOR TO SUBMIT VALVE CLOSURE PLAN TO CORR FOR APPROVAL PRIOR TO MAKING CONNECTIONS OR OPENING/CLOSING VALVES.
- EXISTING WATER SYSTEM TO REMAIN IN SERVICE UNTIL THE NEW WATER SYSTEM IS ACCEPTED.

Designed By:
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HUIT-ZOJARS, INC.
333 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3289

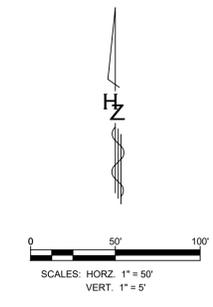
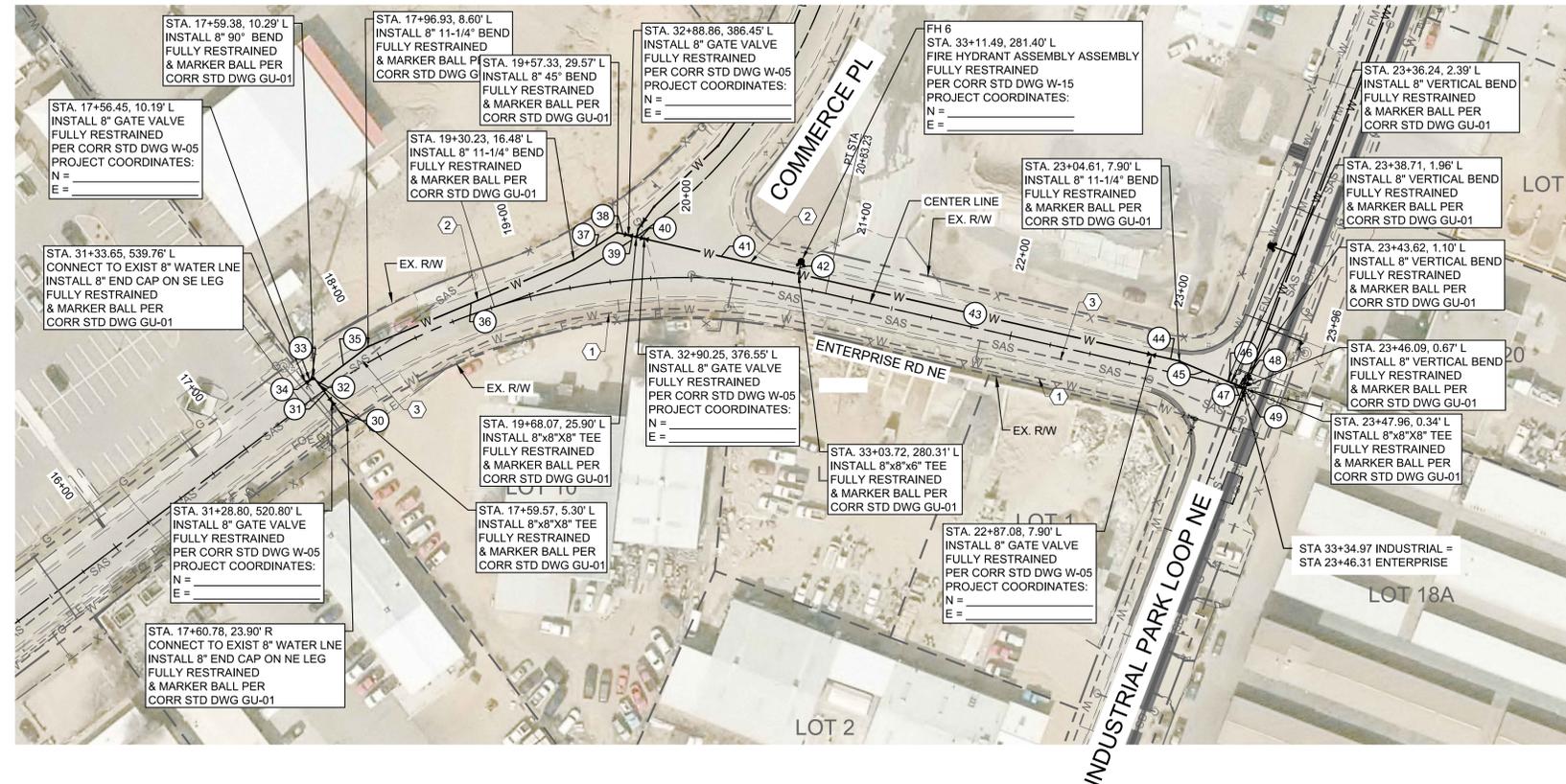
City of Rio Rancho
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

WATERLINE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 11-3





CONSTRUCTION NOTES

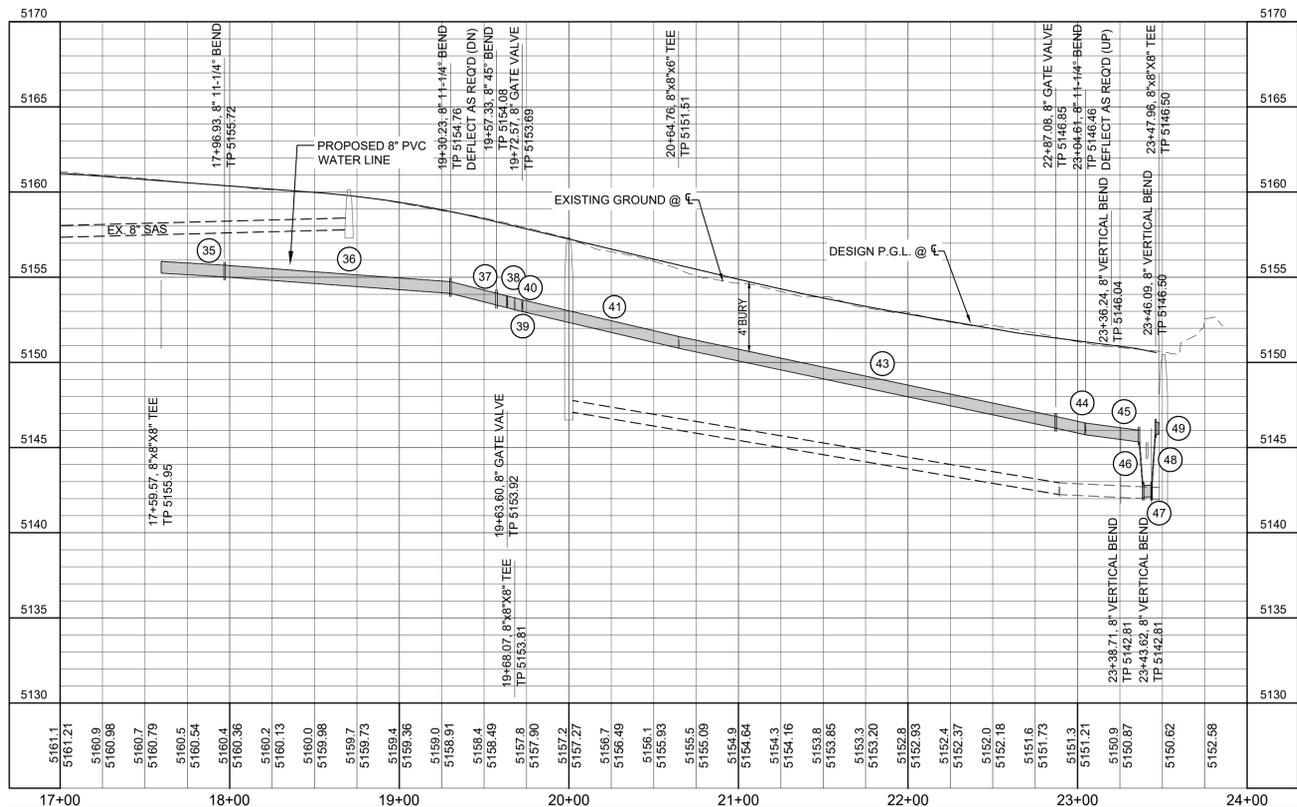
- ① EXISTING 6" DRAINED WATER LINE TO BE CUT AND CAPPED AND ABANDONED IN PLACE.
- ② INSTALL 8" PVC WATER LINE PER DETAIL.
- ③ EXISTING SANITARY SEWER LINE, PROTECT IN PLACE.
- ④ EXISTING WATER METER, RECONNECT TO NEW WATER LINE WITH NEW SERVICE.

LEGEND

- EX. RIGHT-OF-WAY
- EX. CURB & GUTTER
- ⊕ EX. SIGN
- ⊙ EX. SEWER MANHOLE
- ⊗ EX. GAS VALVE
- ⊗ EX. WATER VALVE
- ⊙ EX. FIRE HYDRANT
- G--- EX. GAS LINE
- W--- EX. WATER LINE
- SAS--- EX. SEWER LINE
- UG--- EX. UNDERGROUND ELECTRIC
- TELE--- EX. TELECOM
- CENTERLINE
- ⊙ EXISTING WATER METER
- PROPOSED WATER LINE
- PROPOSED STORM DRAIN
- ⊙ PROPOSED STORM DRAIN MANHOLE
- ⊗ PROPOSED WATER VALVE

WATER LINE DATA			
PIPE	PIPE DIA	BEARING	LENGTH
30	8"	S36° 56' 55"E	15.59'
31	8"	S36° 56' 55"E	13.63'
32	8"	S36° 56' 55"E	5.00'
33	8"	S53° 03' 05"W	3.01'
35	8"	N53° 03' 05"E	38.15'
36	8"	N67° 18' 05"E	137.14'
37	8"	N57° 49' 05"E	31.54'
38	8"	S77° 10' 55"E	7.07'
39	8"	N77° 10' 55"W	5.00'
40	8"	S77° 10' 55"E	5.00'
41	8"	S77° 10' 55"E	97.18'
42	6"	N12° 49' 05"E	7.85'
43	8"	S77° 10' 55"E	222.71'
44	8"	S77° 10' 55"E	17.53'
45	8"	S67° 17' 22"E	32.11'
46	8"	S67° 17' 22"E	2.50'
47	8"	S67° 17' 22"E	4.99'
48	8"	S67° 17' 22"E	2.50'
49	8"	S67° 17' 22"E	1.90'

ENTERPRISE ROAD NE



GENERAL NOTES:

1. LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO BEGINNING WORK. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON AVAILABLE RECORD INFORMATION, ABOVE GROUND FEATURES VISIBLE IN THE FIELD, AND VERBAL DESCRIPTIONS BY THE CITY OF RIO RANCHO. IN THE EVENT CONDITIONS IN THE FIELD ARE NOT AS SHOWN ON THE DRAWINGS, CONTRACTOR SHALL NOTIFY THE PUBLIC INFRASTRUCTURE PROJECT MANAGER IMMEDIATELY SO THE NECESSARY CHANGES TO THE DESIGN MAY BE MADE WITH A MINIMUM OF INTERRUPTION TO THE PROJECT SCHEDULE.
2. HORIZONTAL EXISTING UTILITY INFORMATION AS PER AS-BUILT INFORMATION AND SURVEY. NO VERTICAL AS-BUILT INFORMATION WAS AVAILABLE FOR WATERLINES; 4 FOOT BURY BELOW CURRENT EXISTING SURFACE WAS ASSUMED.
3. ALL WATER SERVICE LINES ARE TO BE REPLACED AS PER CORR STD DWGS W-06 AND W-09. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND DISTURBED LANDSCAPING.
4. WATERLINES BEING REPLACED ARE TO BE ABANDONED IN PLACE.
5. CONTRACTOR TO SUBMIT VALVE CLOSURE PLAN TO CORR FOR APPROVAL PRIOR TO MAKING CONNECTIONS OR OPENING/CLOSING VALVES.
6. EXISTING WATER SYSTEM TO REMAIN IN SERVICE UNTIL THE NEW WATER SYSTEM IS ACCEPTED.

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City of Rio Rancho
CITY OF RIO RANCHO

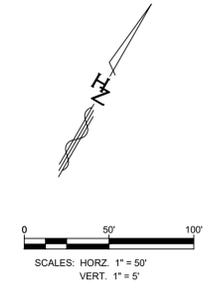
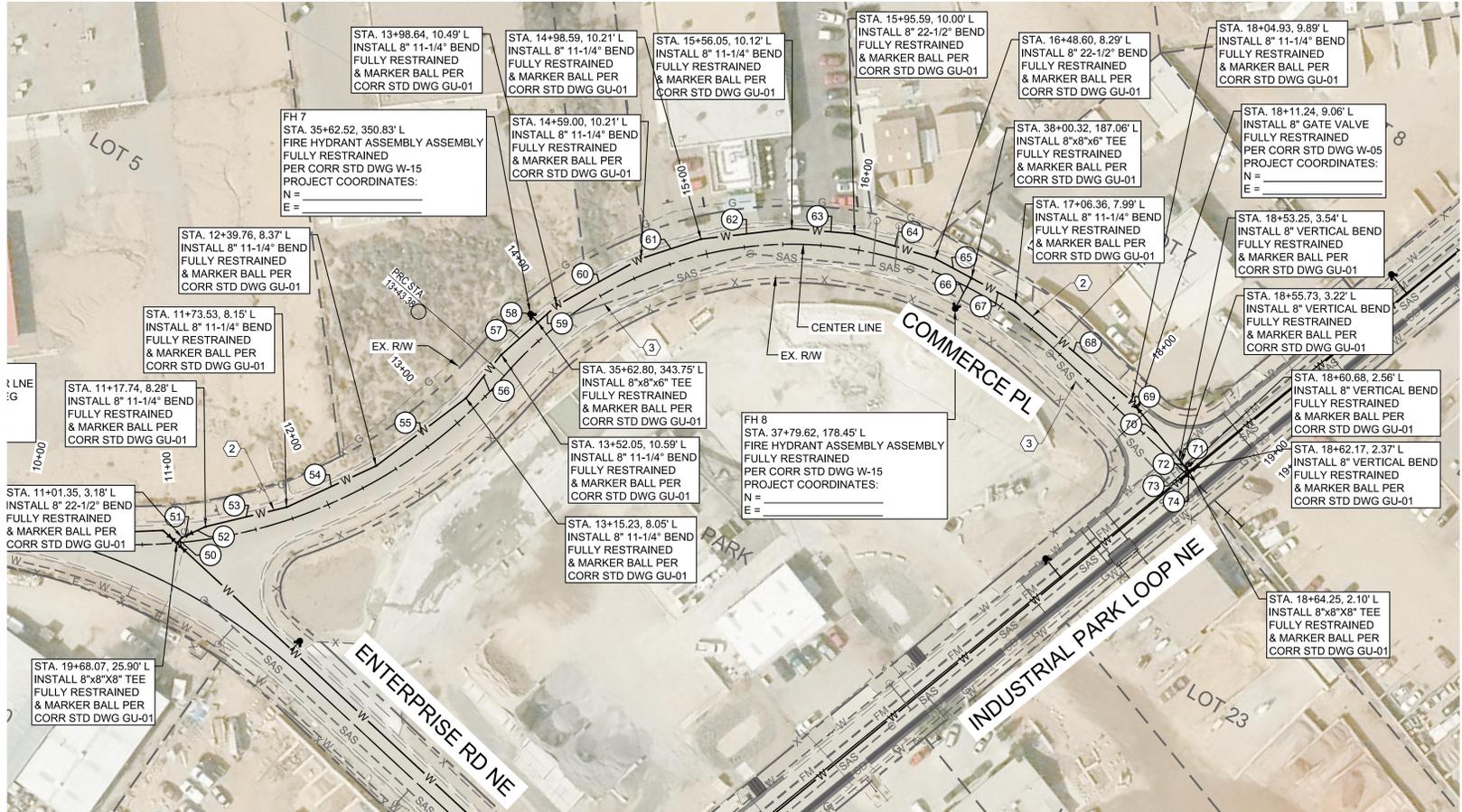
WATERLINE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET:



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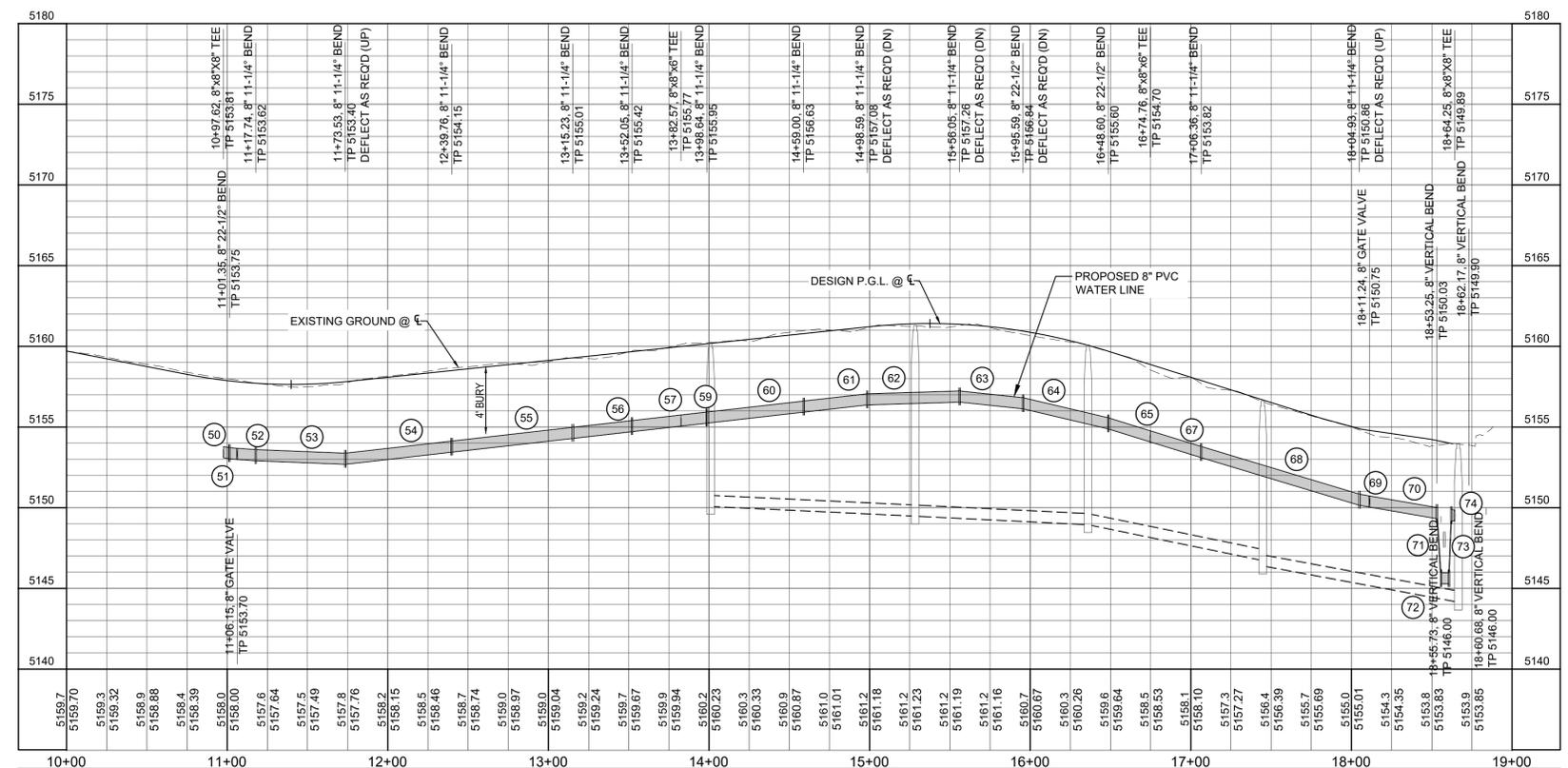
- CONSTRUCTION NOTES**
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 - INSTALL 8" PVC WATER LINE PER DETAIL.
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 - EXISTING WATER METER, RECONNECT TO NEW WATER LINE WITH NEW SERVICE.

- LEGEND**
- EX. RIGHT-OF-WAY
 - EX. CURB & GUTTER
 - EX. SIGN
 - EX. SEWER MANHOLE
 - EX. GAS VALVE
 - EX. WATER VALVE
 - EX. FIRE HYDRANT
 - EX. GAS LINE
 - EX. WATER LINE
 - EX. SEWER LINE
 - EX. UNDERGROUND ELECTRIC
 - EX. TELECOM
 - CENTERLINE
 - EXISTING WATER METER
 - PROPOSED WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN MANHOLE
 - PROPOSED WATER VALVE

WATER LINE DATA

PIPE	PIPE DIA	BEARING	LENGTH
50	8"	N12° 50' 34"E	4.99'
51	8"	N35° 20' 34"E	5.00'
52	8"	N35° 20' 34"E	11.88'
53	8"	N46° 35' 34"E	54.28'
54	8"	N35° 20' 34"E	64.41'
55	8"	N23° 05' 34"E	73.36'
56	8"	N09° 11' 42"E	36.47'
57	8"	N18° 31' 36"E	31.75'
58	6"	N71° 28' 24"W	7.08'
59	8"	N18° 31' 36"E	16.74'
60	8"	N30° 57' 38"E	62.71'
61	8"	N42° 12' 38"E	41.17'
62	8"	N53° 27' 38"E	59.68'
63	8"	N64° 42' 38"E	41.10'
64	8"	N76° 57' 38"E	54.88'
65	8"	N88° 12' 38"E	26.99'
66	6"	S01° 47' 22"E	22.42'
67	8"	N88° 12' 38"E	32.52'
68	8"	S79° 32' 22"E	99.75'
69	8"	S69° 17' 22"E	6.37'
70	8"	S69° 17' 22"E	42.37'
71	8"	S69° 17' 22"E	2.50'
72	8"	S69° 17' 22"E	5.00'
73	8"	S69° 17' 22"E	1.50'
74	8"	S69° 17' 22"E	2.10'

COMMERCE PLACE NE



GENERAL NOTES:

- LOCATION OF ALL UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO BEGINNING WORK. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON AVAILABLE RECORD INFORMATION, ABOVE GROUND FEATURES VISIBLE IN THE FIELD, AND VERBAL DESCRIPTIONS BY THE CITY OF RIO RANCHO. IN THE EVENT CONDITIONS IN THE FIELD ARE NOT AS SHOWN ON THE DRAWINGS, CONTRACTOR SHALL NOTIFY THE PUBLIC INFRASTRUCTURE PROJECT MANAGER IMMEDIATELY SO THE NECESSARY CHANGES TO THE DESIGN MAY BE MADE WITH A MINIMUM OF INTERRUPTION TO THE PROJECT SCHEDULE.
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- EXISTING WATER SYSTEM TO REMAIN IN SERVICE UNTIL THE NEW WATER SYSTEM IS ACCEPTED.

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City of Rio Rancho
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

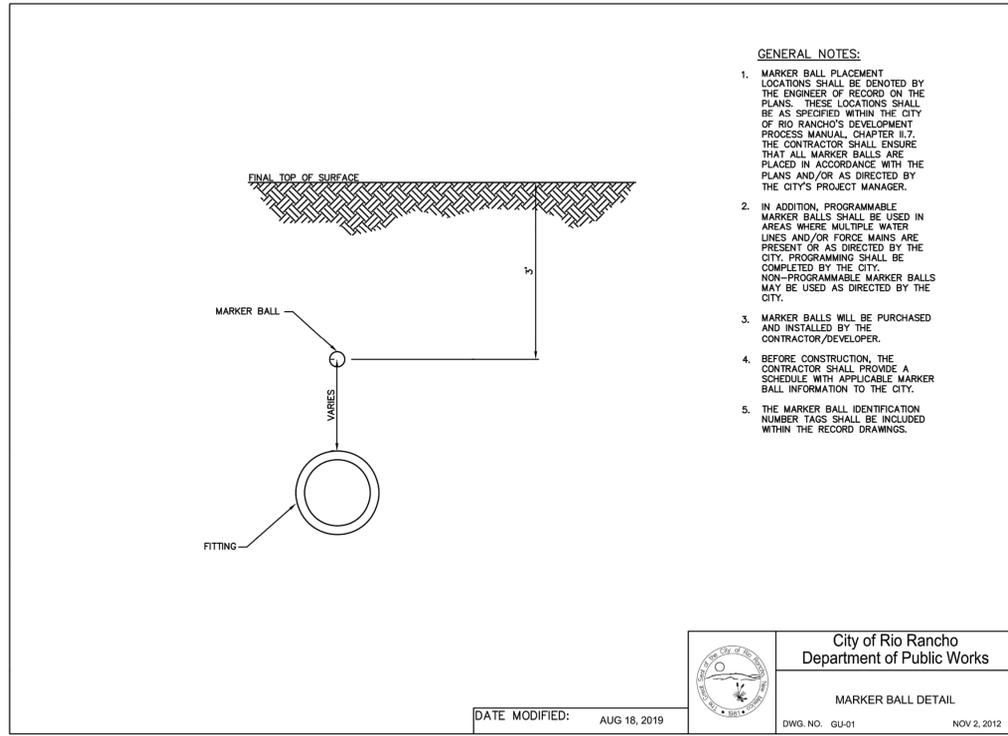
WATERLINE PLAN & PROFILE
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



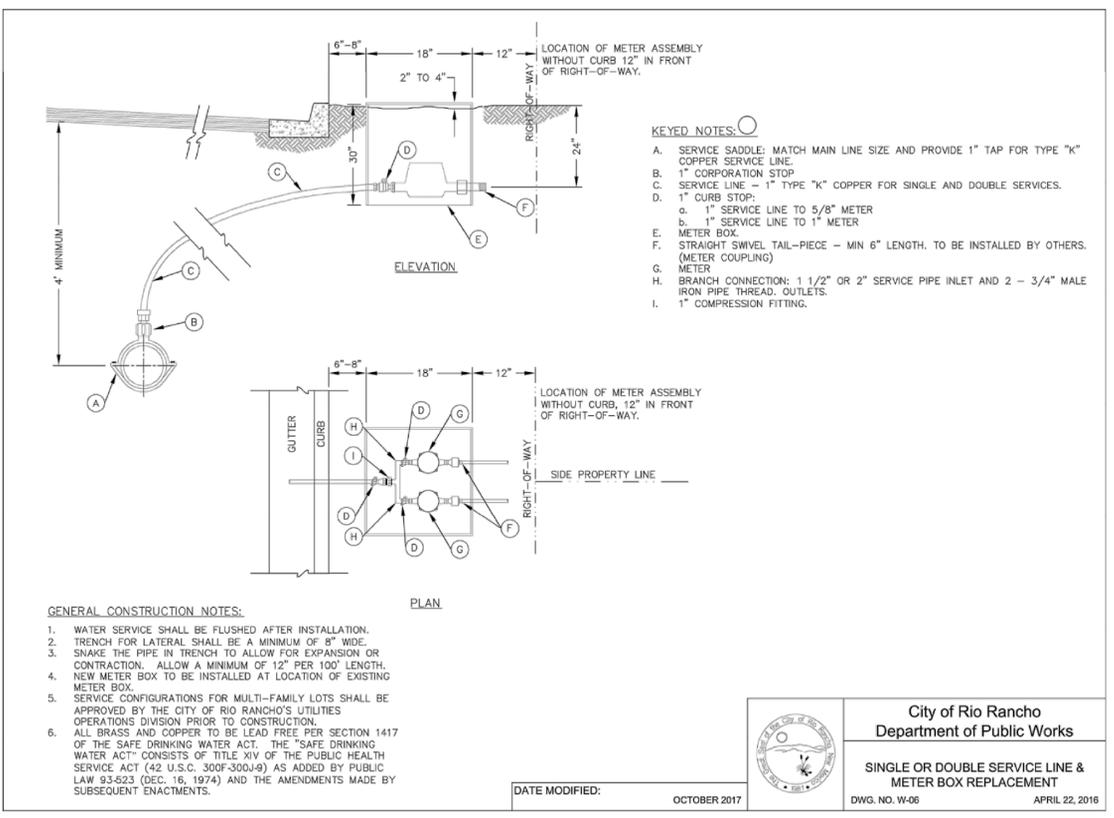
PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK:
SHEET: 11-5



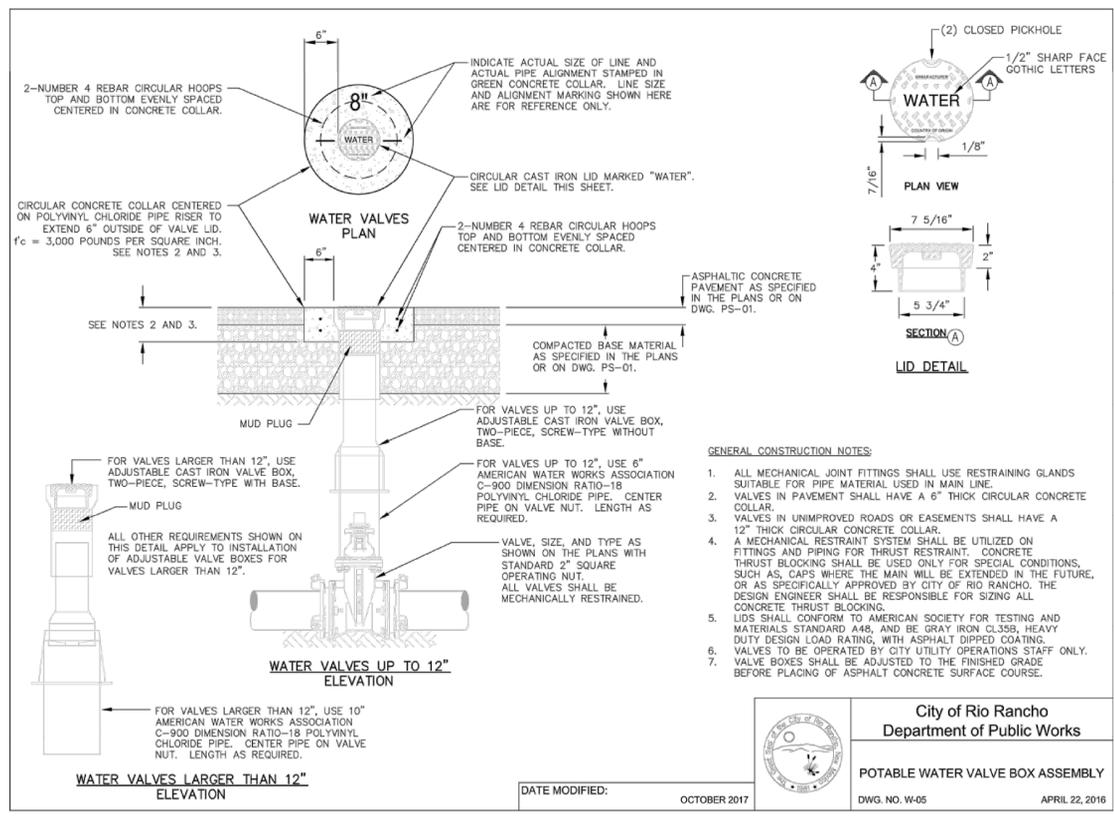
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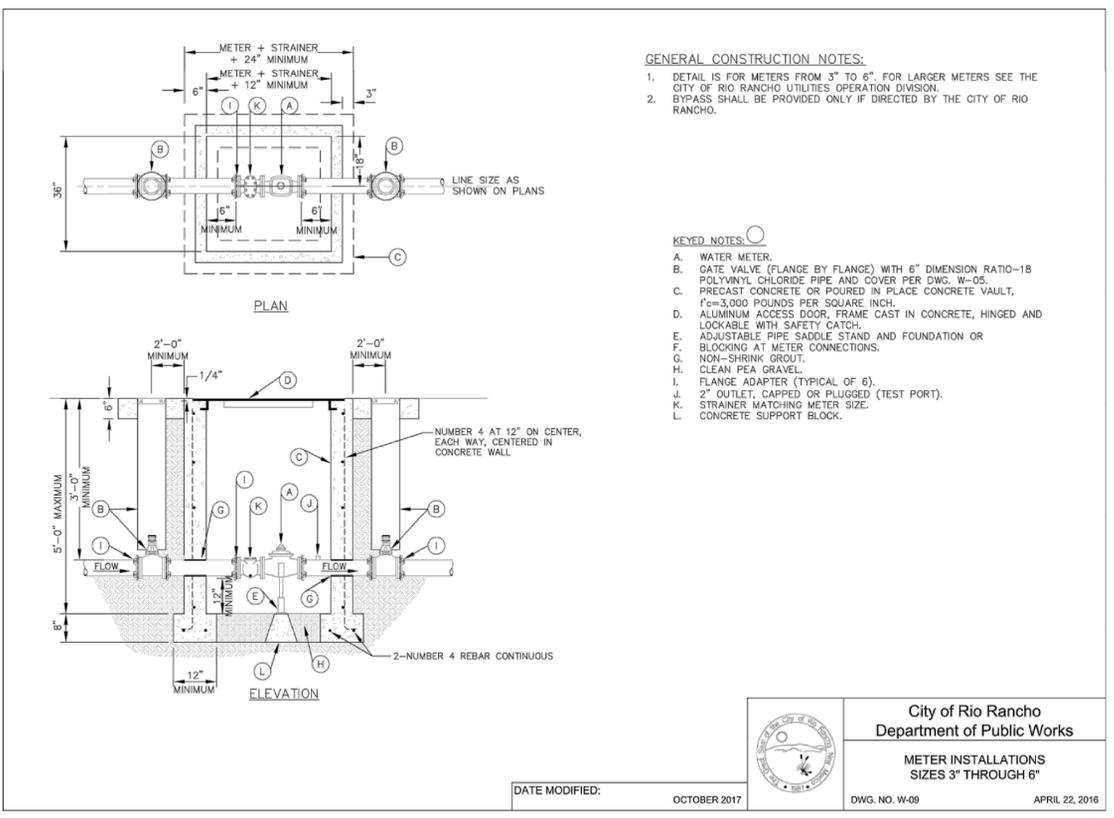
MARKER BALL DETAIL
N.T.S.



METER BOX REPLACEMENT DETAIL
N.T.S.



VALVE BOX ASSEMBLY DETAIL
N.T.S.



METER INSTALLATION DETAILS
N.T.S.



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 333 Rio Rancho Drive NE, Suite 101
 Rio Rancho, New Mexico 87124
 Phone (505) 892-5141 Fax (505) 892-3289

City of Rio Rancho
Department of Public Works
SINGLE OR DOUBLE SERVICE LINE & METER BOX REPLACEMENT
DWG. NO. W-06 APRIL 22, 2016

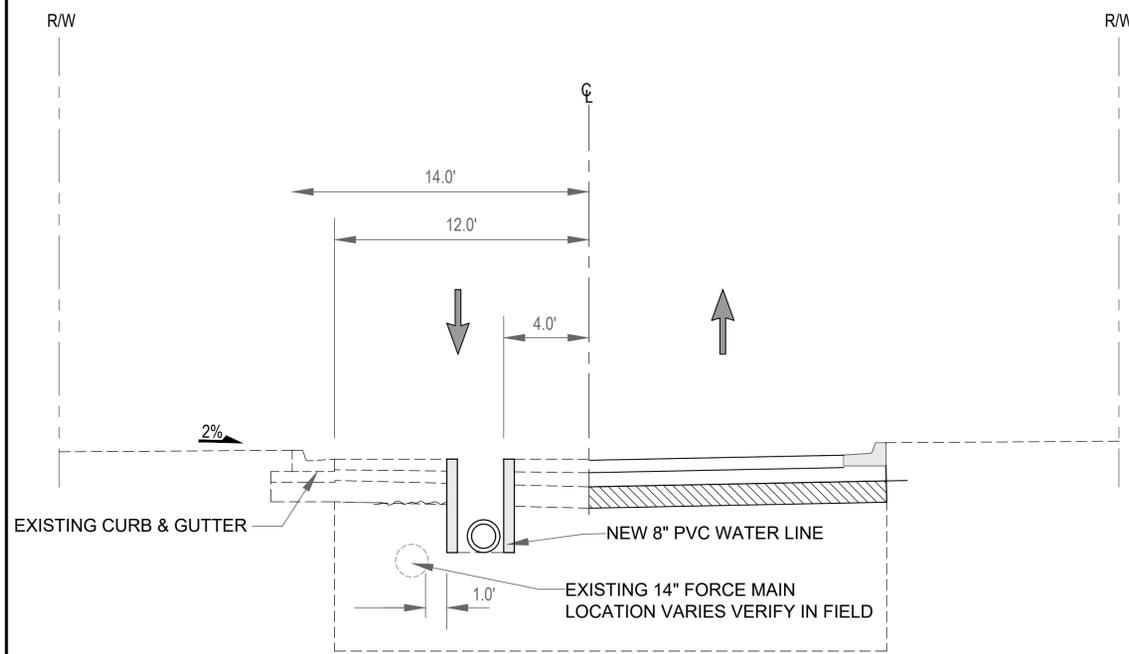
City of Rio Rancho
Department of Public Works
MARKER BALL DETAIL
DWG. NO. GU-01 NOV 2, 2012

WATER DETAILS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO

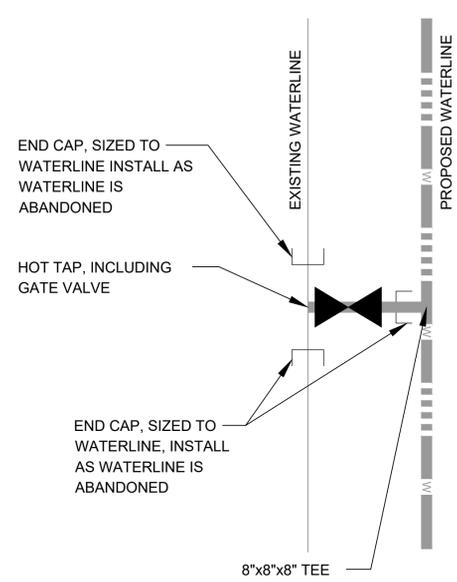


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DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: 11-6

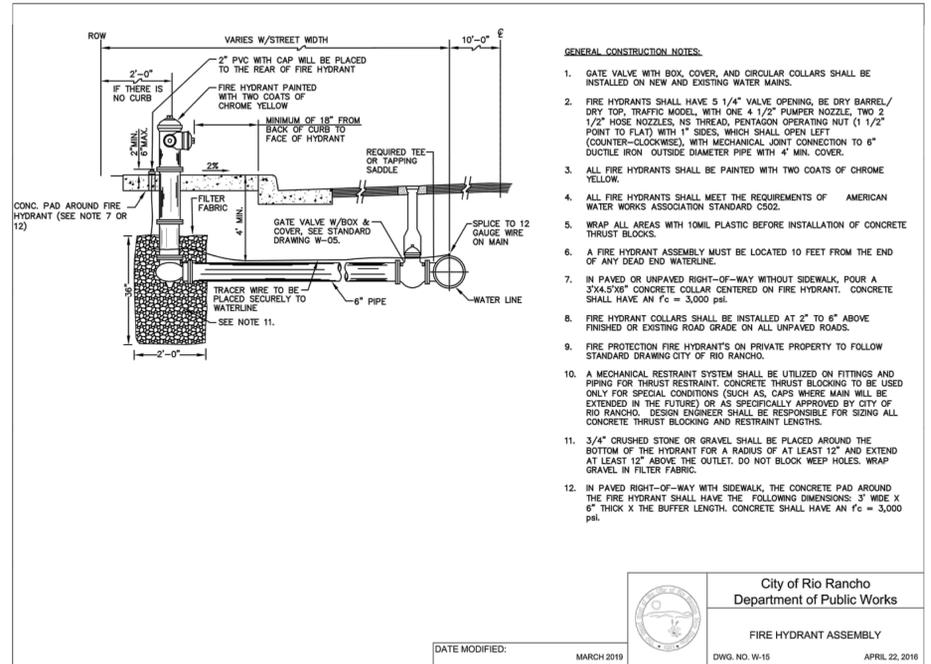




WATER LINE INSTALLATION
N.T.S. A



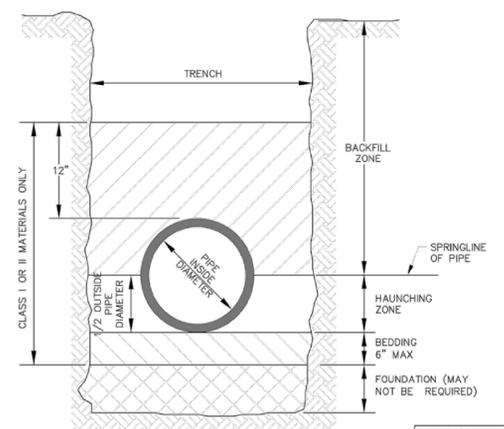
EXISTING WATER LINE CONNECTION DETAIL
N.T.S. B



FIRE HYDRANT ASSEMBLY DETAIL
N.T.S. C

EMBEDMENT SOILS CLASSIFICATIONS		
SOILS CLASS	SOIL TYPE	DESCRIPTION
CLASS I SOILS*		MANUFACTURED ANGULAR, GRANULAR MATERIAL, 1/4" TO 1 1/2" INCHES (6 TO 40 MM) SIZE, INCLUDING MATERIALS HAVING A REGIONAL SIGNIFICANCE SUCH AS CRUSHED STONE OR ROCK, BROKEN CORAL, CRUSHED SLAG, CINDERS, OR CRUSHED SHELLS, COMPLYING TO THE REQUIREMENTS OF CLASS II SOILS.
CLASS II SOILS**	GW	WELL-GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES, 50% OR MORE COARSE FRACTION RETAINED ON NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.
CLASS II SOILS**	GP	POORLY GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES, 50% OR MORE COARSE FRACTION RETAINED ON NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.
CLASS II SOILS**	SW	WELL GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES. MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.
CLASS II SOILS**	SP	POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES. MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.

* SOILS ARE AS DEFINED IN ASTM D2487, EXCEPT FOR CLASS I SOILS WHICH ARE DEFINED IN ASTM D2321.
** IN ACCORDANCE WITH ASTM D2487, LESS THAN 5% PASSES NO. 200 SIEVE.
FROM TABLE 701.3.A. NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2006 EDITION



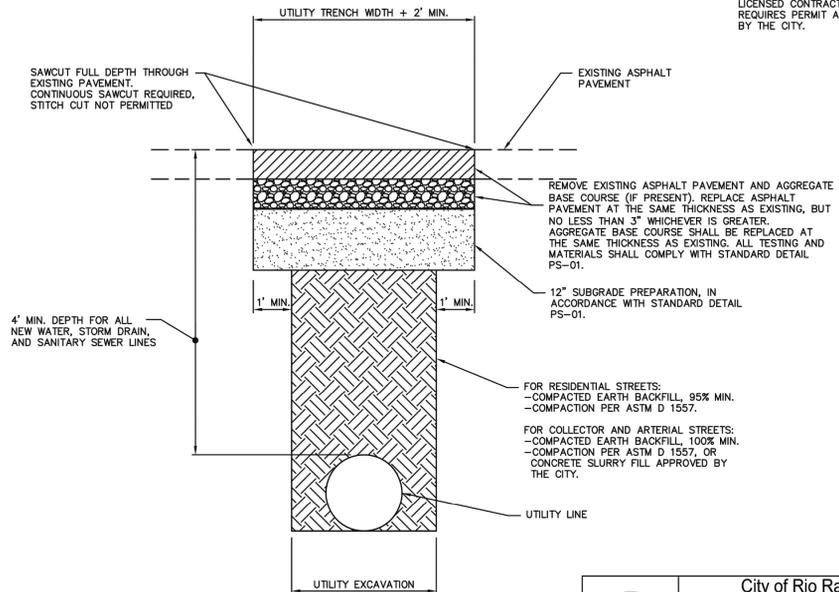
- GENERAL CONSTRUCTION NOTES:**
- BEDDING MATERIALS SHALL BE CLASSIFIED AS DEFINED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS STANDARD D2321. REFER TO TABLE 701.3.A OF THE CITY OF RIO RANCHO STANDARD SPECIFICATIONS, AS AMENDED FOR SOIL CLASSIFICATION DESCRIPTIONS.
 - COMPACTION TESTING SHALL BE TAKEN AT SPRINGLINE OF PIPE.
 - COMPACTION TESTING SHALL BE TAKEN AT INITIAL BACKFILL ZONE.
 - FOR PAVED AREAS, COMPACTION SHALL BE 95% STANDARD MODIFIED PROCTOR PER AMERICAN SOCIETY FOR TESTING AND MATERIALS STANDARD D1557.
 - FOR UNPAVED AREAS, COMPACTION SHALL BE 90% STANDARD MODIFIED PROCTOR PER AMERICAN SOCIETY FOR TESTING AND MATERIALS STANDARD D1557.

City of Rio Rancho
Department of Public Works

PIPE BEDDING

DATE MODIFIED: OCTOBER 2017
DWG. NO. W-07
APRIL 22, 2016

PIPE BEDDING
N.T.S. D



- GENERAL NOTES:**
- ANY DEVIATIONS FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY FOR PRIOR APPROVAL.
 - ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BY A LICENSED CONTRACTOR AND REQUIRES PERMIT AND APPROVAL BY THE CITY.

City of Rio Rancho
Department of Public Works

PAVEMENT CUT FOR UTILITY EXCAVATION

DATE MODIFIED: June 11, 2015
DWG. NO. PS-02
SEP. 29, 2005

PAVEMENT CUT FOR UTILITY EXCAVATION
N.T.S. E

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

Designed By: **HUIT-ZOJARS**
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City of Rio Rancho
Department of Public Works
RIO RANCHO, NEW MEXICO

WATER DETAILS
INDUSTRIAL PARK
ROAD & UTILITY IMPROVEMENTS
RIO RANCHO, NEW MEXICO



PROJECT NO. R309554.01
DESIGNED BY: GM
DRAWN BY: STAFF
CHECKED BY: RJD
DATE: FEB 2020
DPW CHK: -
SHEET: **11-7**

