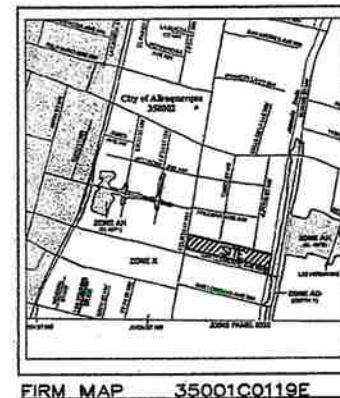


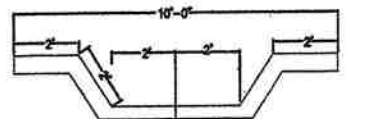
Note: 814 Solutions did not create the grading and drainage plan. 814 Solutions added best management practices to existing plan.

LEGEND

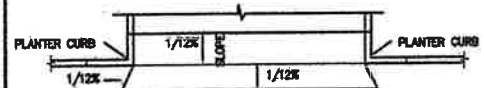
- Silt Fence ————
- Wattle ————
- Drop inlet cover ————
- Permit notification board ————



1 CONCRETE DRAINAGE DETAIL
SCALE=NTS



2 MRGLD DRAINAGE CHANNEL DETAIL
SCALE=NTS



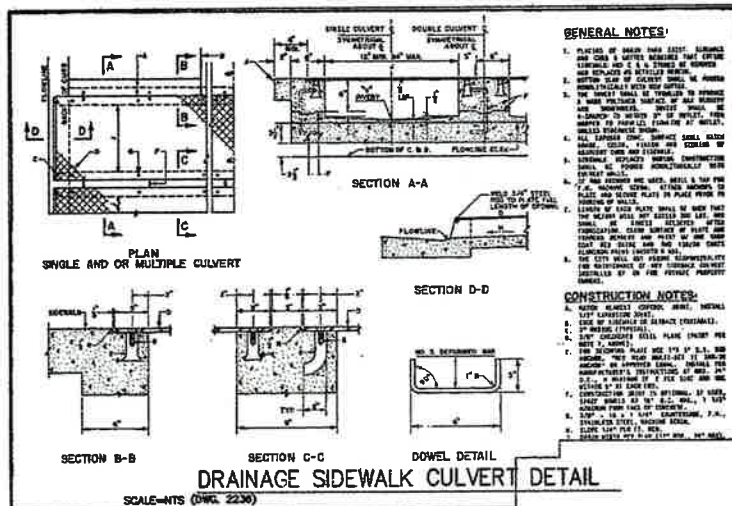
3 DRIVEPAD DETAIL
SCALE=NTS (DWG. 2425)

GRADING LEGEND

- EXISTING ————
- PROPOSED ————
- BASIN BOUNDARY
- CONTOUR
- FLOW LINE
- SPOT ELEVATION
- STORM DRAIN LINE
- CURB & GUTTER
- VALLEY GUTTER
- WHEEL CHAIR RAMP
- 4' SIDEWALK
- STRUCTURE
- STORM DRAIN LINE
- STREET LIGHT
- FIRE HYDRANT
- MANHOLE

SITE / GRADING PLAN

SCALE: 1" = 30'



GENERAL NOTES

1. PLACE OF DRAINAGE SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SHOWN ON THE PLAN.
2. THE DRAINAGE SYSTEM SHALL BE DESIGNED TO DRAIN THE ENTIRE AREA OF THE SITE TO THE STREET OR TO THE POND.
3. THE DRAINAGE SYSTEM SHALL BE DESIGNED TO DRAIN THE ENTIRE AREA OF THE SITE TO THE STREET OR TO THE POND.
4. THE DRAINAGE SYSTEM SHALL BE DESIGNED TO DRAIN THE ENTIRE AREA OF THE SITE TO THE STREET OR TO THE POND.
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CONSTRUCTION NOTES

1. THE DRAINAGE SYSTEM SHALL BE DESIGNED TO DRAIN THE ENTIRE AREA OF THE SITE TO THE STREET OR TO THE POND.
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REVISED GRADING PLAN 11/05
FIRE MARSHALL & WASTE MANAGEMENT.

DEL'S HIDE-A-WAY PARK - REVISE
4326 4th STREET ALBUQUERQUE, NEW MEXICO

SITE / GRADING PLAN

QuikDraw
ENGINEERING, L.L.C.
P.O. Box 729
Corralitos, NM 87048
Office (505) 898-0389 Fax (505) 897-0389

2"x2" WOOD POST, STANDARD OR BETTER OR EQUAL ALTERNATE: STEEL FENCE POST

FILTER FABRIC MATERIAL, USE STAPLES OR WIRE RINGS TO ATTACH FABRIC TO WIRE.

SUPPORTING FENCE 2"x2" 14 GA. WIRE OR EQUIV.

BURY BOTTOM OF FILTER MATERIAL IN 6"x6" TRENCH

FILTER FABRIC MATERIAL

FABRIC ANCHORAGE TRENCH, BACKFILLED WITH TAMPED NATURAL SOIL, 6"x6" MIN.

2"x2" 14 GA. WIRE, MESH OR EQUIV.

2"x2" WOOD POST, ALTERNATE: STEEL FENCE POST, BURY 24" MIN.

NATURAL SOIL

Notes:

1. Wire mesh is not required, but it is recommended as it will help prevent tearing due to increased wind speed or sediment/water load.
2. Pole spacing is not to exceed 10 feet between poles in straight-run sheet flow areas.
3. Pole spacing in a site's lower corners should be spaced approximately 6 feet apart or closer.
4. Silt fence is not created for use in high velocity situations, where flow is heavily concentrated. If concentrated flow does drain toward silt fence, then use additional BMPs to reduce the flow's velocity.
5. Silt fence fabric transition points should have posts interlocked with no gaps in the silt fence coverage.

Source: City of Albuquerque
Construction Site Manual 2018

Silt Fence

15" x 10" x 18" (MIN) WOODEN STAKE

9" DIAMETER (MIN) SEDIMENT CONTROL LOG

4" DIA. OF TIE (TYP.)

FLOW

TRENCHED SEDIMENT CONTROL LOG

SECTION A

12" OVERLAP (MIN.)

9" DIAMETER (MIN) SEDIMENT CONTROL LOG

LOG JOINTS

15" x 10" x 18" (MIN) WOODEN STAKE

FLOW

Notes:

1. It is recommended that wattles be trenched into the ground to a depth of approximately 1/3 of the diameter of the log. If trenching to this depth is not feasible or desirable, then a lesser trenching depth may be acceptable with more robust staking. Sandbags may be used on impervious surfaces.
2. Wattles that are 8 lb/ft or more do not need to be trenched.
3. Remove sediment from the upstream side of wattle when sediment accumulation is 1/2 the height of the wattle.
4. For parallel flow past the wattle joints, make sure the upstream wattle is on the interior side of the downstream wattle
5. Place wattle around stockpiles that are not being worked on or that are on impervious surfaces.

Source: Urban Storm Drainage
Criteria Manual Volume 3

Wattle/ Filter Sock/
Sediment Control Log

50 FOOT (MIN.)

9" (MIN.)

UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, USE COOT SECT. #703, AASHTO #3 COURSE AGGREGATE OR 6" MINUS ROCK

NON-WOVEN GEOTEXTILE FABRIC BETWEEN SOIL AND ROCK

INSTALL ROCK FLUSH WITH OR BELOW TOP OF PAVEMENT

UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, USE COOT SECT. #703, AASHTO #3 COURSE AGGREGATE OR 6" MINUS ROCK

9" (MIN.)

NON-WOVEN GEOTEXTILE FABRIC

COMPACTED SUBGRADE

SECTION A

Notes:

1. A stabilized construction entrance/exit shall be located at all access points where vehicles access the construction site from paved right-of-ways.
2. Sediment tracked onto paved roads is to be removed throughout the day and at the end of the day by shoveling or sweeping. Sediment may not be washed down storm sewer drains.
3. Some Vehicle Tracking Controls may need a wheel wash station. When a wheel wash is available, make sure to direct wash water to a sediment trap prior to discharge from the site.
4. Wash water may not contain soaps or chemicals, unless a separate permit is acquired.
5. A metal grate can be used in conjunction with an aggregate track-out pad. The grate should be regularly cleared of sediment, and help prevent track-out.
6. Make sure the Vehicle Tracking Control is not bypassed by the construction traffic.

Source: Urban Storm Drainage
Criteria Manual Volume 3

Vehicle Tracking Control

Wash-out from curb-cutting operation.

Notes:

1. The preferred method to access a site is to cut the curb, so a ramp is not required. Placing curb cut in the same place as future entrance/exit can minimize work.
2. When cutting the curb, the cutting machine uses water, and the byproduct of the process is similar to concrete wash-out. Place byproduct in wash-out container.

Source: City of Albuquerque
Construction Site Manual 2018

Access onto Curbed
Sites

Cold-mix asphalt ramp used for accessing the site.

Notes:

6. Do not use dirt ramps to access sites with curbs, because the dirt can be easily washed to into storm drains.
7. **WARNING!** Any injury or property damage to a motorist, cyclist, or pedestrian due to the installation of a ramp is the responsibility of the contractor/property owner.

Notes:

1. Regularly collect and dispose of garbage and waste material into designated collection areas.
2. Routinely inspect containers and equipment to ensure that it is functioning properly without leaking.
3. Promptly clean up leaks, drips, and other spills. Train employees on proper clean up and spill response procedures.
4. Cover and maintain dumpsters and waste receptacles. Add additional dumpster or increase frequency of waste collection if overflowing conditions occur. Consider secondary containment around waste collection areas to minimize the likelihood of contaminated discharges.
5. For outdoor painting and sanding: conduct these operations in designated areas that are paved or have a secondary containment in place. Clean up and dispose of excess paint, paint chips, protective coatings, grit waste, etc.
6. Store containers, drums, and bags away from direct traffic routs to reduce container damage.
7. Store materials in accordance with directions in Material Safety Data Sheets (MSDSs).
8. Store container s on pallets or similar devices to prevent corrosion of containers that results from containers coming into contact with moisture on the ground.
9. Store toxic or hazardous liquids within curbed areas or secondary containments.
10. Frequent and proper training in good housekeeping techniques reduces the likelihood that chemicals or equipment will be mishandled.
11. Recycle materials whenever possible (e.g. paper, wood, concrete, oil).
12. Segregate and provide proper disposal options for hazardous material wastes.
13. Locate toilet facilities away from storm drain inlets and waterways to prevent accidental contamination of stormwater.
14. Provide tie-downs or stake downs for portable toilets.
15. Make sure the site has a Spill Protection Plan, Spill kit, and individuals trained on the location and workings of the plan and kit.
16. Create a designated on-site fueling and maintenance area that is clean and dry, has a spill kit, and ideally in a covered area.
- 17.

Source: Urban Storm Drainage
Criteria Manual Volume 3

Good Housekeeping

One-piece inlet protection BMP for an inlet with a grate and a throat.

Notes:

1. The proper inlet protection shall be used and maintained to prevent sediment and wastes from entering a stormwater drainage system and shall minimize the risk of flooding.
2. The type of inlet protection utilized shall depend on the inlet type, slope, and volume of flow.

Source: City of Albuquerque
Construction Site Manual 2018

Inlet Protection Part 1

One-piece inlet protection BMP for an inlet with a grate and a throat.

Notes:

3. For inlets with a throat opening and a grate, the inlet shall be protected with a BMP that covers the throat and the grate.
4. For throat type of inlet protection, sediment shall not be higher than halfway up the BMP.
5. For mat type and one-piece style of BMP, more than 50% of the inlet protection must be clear of sediment and debris.

Mulch sock used for inlet protection.

Cocca mat used for grate and throat.

Notes:

6. The inlet protection shall be able to let water drain through.
7. **WARNING!** Any injury or property damage to a motorist, cyclist, or pedestrian due to the installation of inlet protection is the responsibility of the contractor/property owner. Try using a mat-type inlet protection to reduce possible road hazards.
8. Make sure inlet protection is secured in place, and will not be moved by stormwater.

Rock bags used for inlet protection. Photo was taken during a rain event.

Notes:

9. In residential subdivisions where there are inlets internal to the construction site, the style should change as the site is developed. When the site is mostly dirt, use a BMP that protects throat and grate. When the site has built more and less dirt is exposed, then a less restrictive style can be used to catch sediment in the gutter.

Source: City of Albuquerque
Construction Site Manual 2018

Inlet Protection Part 2

Rock bags used for inlet protection. Photo was taken during a rain event.

Notes:

10. Inlet protection constructed of silt fence surrounding the inlet may be used when the inlet is surrounded by stake-able dirt.
11. Inlet protection should be used for inlets/storm drains within the construction site/disturbed area, AND any inlets/storm drains outside the project area that may receive stormwater discharges from the construction site/disturbed area.

Another application of using silt fence for inlet protection.

Open storm drain considered an inlet requiring protection. This also includes drains that are not actively being worked on.

Notes:

12. Open storm drains are considered an inlet and require protection. This also includes drains that are not actively being worked on.

ED-1. COMPACTED UNLINED EARTH DIKE FORMED BY BERM

DS-1. COMPACTED UNLINED EXCAVATED SWALE

DS-2. COMPACTED UNLINED SWALE FORMED BY CUT AND FILL

DS-3. ECB LINED SWALE (CUT AND FILL OR BERM)

Notes:

1. Earth dikes and drainage swales are typically used for controlling the flow path of runoff at a constructions site; sometimes by diverting water away from sensitive areas, or by conveying water to treatment BMPs (sediment traps or basins).
2. Unlined berms/dikes or swales need to be compacted, and should only be used for intercepting sheet flow runoff (not intended for diversion of concentrated flows).
3. If there is reoccurring damage, consider installing rock check dams or lining with riprap.
4. If berms/dikes or swales are not permanent, then remove berms/dikes and fill channels when upstream area is stabilized. Immediately stabilize the disturbed area after the BMP removal.

Source: Urban Storm Drainage
Criteria Manual Volume 3

Earth Berms/ Dikes/
Drainage Swales

Earth Dikes and Drainage Swales (ED/DS) EC-10

These roll-off wash-out containers were lowered for easier access.

Notes:

1. Designated wash-out areas should be provided for any concrete, stucco, mortar, or paint operations. Wash-outs should be as far away as possible from waters of the U.S., stormwater inlets, or conveyances.
2. "Wash-out should be directed to leak-proof containers or leak proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation." -CGP 2017

Source: City of Albuquerque
Construction Site Manual 2018

Wash-outs

These roll-off wash-out containers were lowered for easier access.

Notes:

3. If the concrete/stucco/mortar is firm when it contacts the soil, then it is not considered wash-out (not wet enough to infiltrate into the soil).

4. A centralized wash-out may be effective for concrete trucks. For stucco, mortar, and paint wash-outs, a local wash-out and wash-out education has been more successful in avoiding improper wash-outs.

Mortar towers with plastic beneath as a BMP.

Notes:

5. Mortar towers shall have a plastic liner beneath them to prevent the wet mortar from contacting the soil. If wet stucco or mortar contacts the ground due to mixing, it would be a compliance issue.
6. If a wash-out occurs on bare soil, the Operator is expected to remove it same day. The wash-out material, as well as the wetted soil, are to be removed and disposed of appropriately.