then routed west via Pipe Runs 3 (proposed private 42" RCP), 2 (proposed private 48" RCP), and 1 (proposed private 48" RCP) to the proposed forebay for the proposed Pond 1 (discussed below). If any of these sump inlets become clogged, runoff will continue flowing in the concrete cross-pans until it is collected in the next downstream inlet. If the proposed 20' D10-R sump inlet becomes clogged, runoff will back-up downstream until it is captured in Inlet #2 (see proposed drainage map).

Please state if this proposed gravel yard will be treated by the pond. This currently provides multiple options for conveyance. Is the gravel yard a future development the pond is proposing to account for? If not and the gravel yard is proposed with this development it needs to be clear how the runoff will reach the Pond.

Basin PR-4 consists of 3.66 acres gravel yard, with the two future canopies included in the drainage calcs, located on the south side of the site and its runoff (Q_5=8.2 cfs, Q_{100}=16.8 cfs) sheet flows northwest to either Design Point 4, inlet #9, a [illegible]' D10-R sump inlet, located on the south-central side of the site, or into the con[illegible]e north side of the basin, flows west, and eventually into ether Inlet #8, a proposed private CDOT Type 14 sump inlet or Inlet #9. Runoff is conveyed via Pipe Run 12, a proposed private 36" RCP, to an inlet junction at Inlet #8, a proposed private CDOT Type 13 inlet. The runoff (Q_5=8.2 cfs, Q_{100}=16.8 cfs) is then conveyed north via Pipe Run 11, a proposed private 36" RCP, to an inlet junction at Inlet #3 (discussed above). If either of these inlets become clogged, runoff will overtop and be collected in the opposite inlet.

added sentence that it does get to pond.

Basin PR-5 consists of 0.56 acres of native grasses and a grass swale located at the south-central side of the site and its runoff (Q_5=0.1 cfs, Q_{100}=0.9 cfs) is conveyed via grass swale to Design Point 4. This swale also collects flows from Basin OS-X (discussed in Existing Drainage Conditions) in the amount of Q_5=0.4 cfs and Q_{100}=2.3 cfs. The combined runoff (Q_5=0.5 cfs, Q_{100}=3.2 cfs) flows over a proposed 1' deep 10'x20' D_{50}=12" riprap pad and into an existing swale just south of the south-central property line which eventually enters Sand Creek.

Basin PR-6 consists of 6.64 acres of the bulk of the western side of the site including the proposed private Pond 1 EDB (Design Point 6) and its runoff (Q_5=3.1 cfs, Q_{100}=13.1 cfs) sheet flows west and into the proposed pond. This pond also collects flow from the underground conveyance system from Pipe Run 1, a proposed private 48" RCP, in the amount of Q_5=41.4 cfs and Q_{100}=91.7 cfs. The combined runoff (Q_5=44.2 cfs, Q_{100}=104.8 cfs) enters the pond at Design Point 6 where it is treated for water quality and/or detained. The combined flow of the currently proposed development and future commercial development will be captured in a 2.657 acre-foot Extended

Detention Basin. Runoff entering the pond through the storm sewer system will be routed into a 702 cu-ft concrete lined forebay with a 1.5 feet high concrete cutoff wall. A 3-inch notch in the wall drains the flow to a 2' concrete trickle channel, then the runoff is routed to the 3.0' deep micropool which has a 6" deep initial surcharge area. The 32.96 acres tributary to the EDB are 44% impervious. Based upon this we need a WQCV of 0.523 ac-ft, an EURV volume of 1.091 ac-ft and 100-year volume of 1.044 ac-ft for a total volume needed of 2.657 ac-ft. The bottom of the micropool elevation is at 6199.50 while the top of the ISV elevation is at 6202.50. The WQCV orifice starts at 6202.00 with two 1-5/8 inch diameter holes spaced 20.40 inches apart, then one 1-1/2 inch diameter hole spaced 20.40 inches apart, then one 3.00" diameter spaced 8.40 inches apart. A 4'x4' outlet structure is set at 6210.00. The 100-year water elevation tops out at 6210.54. A 18" HDPE storm pipe will release Q_5=0.5 cfs and Q_{100}=11.3 cfs discharge to a stilling basin at the west property line, which will outfall onto the adjacent property. The follo

added sentence about stilling basin

contribute flow to Design Point 6: OS-Z, OS-Y, PR-3, PR-4, PR-6, & PR-10.

Please add decision about the stilling basin providing a suitable outfall. The comment response document addressed this point but that text was not incorporated into the report text.

The estimated on-site discharge into Sand Creek in the existing condition is Q_5=30.8 cfs and Q_{100}=71.5 cfs. The estimated on-site discharge into Sand Creek in the proposed condition is Q_5=2.1 cfs and Q_{100}=20.1 cfs, indicating a decrease in discharge into Sand Creek of $\%_5$=93.2% and $\%_{100}$=71.9%.

Include discussion of suitable outfall. Where do these flows go, does it handle flows, even if they are less, et

added sentence about outfall and noted that it follows historic path

Basin PR-7 consists of 0.34 acres of earth embankment located on of the site and its runoff (Q_5=0.2 cfs, Q_{100}=1.1 cfs) sheet flows northwest, off-site, to Design Point 7, indicating that the runoff flows into Sand Creek.

Basin PR-8 consists of 0.30 acres of earth embankment located at the west side of the site, west of the proposed private Pond 1 EDB and its runoff (Q_5=0.2 cfs, Q_{100}=1.0 cfs) sheet flows west, off-site, to Design Point 8, indicating that the runoff flows into Sand Creek.

Basin PR-9 consists of 0.59 acres of earth embankment and flatter area located at the southwest corner of the site and its runoff (Q_5=0.2 cfs, Q_{100}=1.5 cfs) sheet flows west, off-site, to Design Point 9, indicating that the runoff flows into Sand Creek.

Basin PR-10 consists largely of embankment located at the east side of the site and its runoff (Q_5=0.3 cfs and Q_{100}=1.4 cfs) sheet flows west and toward Design Point 10, a proposed private CDOT Type 13 inlet, where it is completely captured and conveyed east via Pipe Run 13 where it connects into the storm system in Basin PR-3 (discussed above). In case of failure in the inlet, runoff will overtop the proposed retaining wall at the west side of the basin and follow drainage patterns as described in Basin PR-3.

There is one storm sewer system proposed on the site. This system collects runoff from the drain trench along the east property line and the two curb inlets in the mini-storage area and pipes the runoff to the detention pond. There are a series of area inlets along the storm pipe in the mini-storage area that are not required to capture runoff, but will lessen the surface flow along the central drive aisle. The storm pipes on the west side of the site have been sized to have some extra capacity so that the future commercial development can tie into them as well.

In an effort to protect receiving water and as part of the "four-step process to minimize adverse impacts of urbanization" this site was analyzed in the following manner:

1. Reduce Runoff- There is no runoff reduction in the proposed mini-storage area. The proposed parking area south of the mini-storage has been surfaced with gravel, which will reduce runoff. These items will reduce the volume of runoff using ponding and infiltration.
2. Stabilize Drainageways- There are no existing or proposed drainageways onsite. The Sand Creek East Fork is located west of the site; however, channel improvements have previously been constructed there.
3. Provide Water Quality Capture Volume (WQCV)- The Extended Detention Basin has been sized and designed to sufficiently capture the required WQCV and slowly release it though the outlet structure, thereby allowing solids and contaminants to settle out. There are a few on-site basins whose runoff is not treated in the proposed EDB. These areas consist mostly of earthen embankment. The runoff from these areas sheet flow over grassed earth, treating the runoff for water quality before it reaches Sand Creek.
4. Consider Need for Industrial and Commercial BMPs- The proposed development is an indoor mini storage facility; therefore, no Industrial and Commercial BMPs have been proposed.

added sentence about ECM I1.7.B.7 exclusion

Unresolved: Discuss exclusions to areas that do not drain to the proposed EDB

HYDROLOGIC CALCULATIONS

Hydrologic calculations were performed using the El Paso County Storm Drainage Design Criteria Manual - Volumes 1 & 2, latest editions. The Rational Method was used to estimate storm water runoff anticipated from design storms with 5-year and 100-year recurrence intervals. The Urban Drainage Criteria Manual was used to calculate the detention and water quality volume.

HYDRAULIC CALCULATIONS

Hydraulic calculations were estimated using the Manning's Formula and the methods described in the El Paso County Storm Drainage Design Criteria Manual – Volumes 1 & 2, latest editions. The pertinent data sheets are included in the appendix of this report.

A culvert is proposed at one of the site entrances. Design calculations have been included for the proposed culvert.

Street runoff capacity calculations for the onsite drive isles have been included.

FLOODPLAIN STATEMENT

No portion of this site is within a designated FEMA floodplain, as determined by FIRM Number 08041C0754 G, dated December 7, 2018 (see appendix).

WATER QUALITY

The proposed detention basin provides water quality treatment for nearly all of the proposed development.

, Pond 1, added

Runoff from basins PR-1, PR-2, PR-5, PR-7, PR- t captured by the proposed detention pond. Basins PR-1 and PR-2 are lands the property line with no impervious area. Basin PR-5 is an undeveloped area with a swale that directs offsite flow back offsite, with no impervious area. Basins PR-7 and PR-8 are earth embankments on the downstream edge of the site that drop 10-15 feet in elevation, with no impervious area. Basin PR-9 is part flatter undeveloped area and part earth embankment on the downstream edge of the site that doesn't flow

now 2.40

1.99 ac

toward the detention pond, with no impervious area. The combined area of these basins is 1.69 acres, with zero impervious area. See the Water Quality Treatment Map for treatment area types, exclusions, and an area summary table.

Please provide map, it is not provided in the drainage map appendices.

added map

CONSTRUCTION COST OPINION

Public Reimbursable

None

Unresolved from Submittal 1: All disturbed areas are required to be accounted for with treatment or water quality exclusions, not impervious areas. See ECM Section I.7.1.B for possible exclusions including

If the areas are proposed to act as "runoff reduction" water quality treatment areas, they need to be identified as separate pervious areas with supporting calculations and identified clearly on the plans. Vegetation in RPAs and SPAs should have a uniform density of at least 80%. In the Drainage Report, runoff reduction calculations (UD-BMP spreadsheet or equivalent) shall be included. In the Drainage Report, include a figure delineating all proposed UIA, RPA, and SPA areas to be utilized for runoff reduction.

Public Non-Reimbursable

None

Private Non-Reimbursable

added more discussion and explained exclusions also acreage is now 2.40

1. 48” RCP	260 LF	$ 245	
2. 42” RCP	80 LF	$ 201	
3. 36” RCP	385 LF	$ 151	
4. 30” RCP	170 LF	$ 123	$ 20,910
5. 24” RCP	115 LF	$ 98	$ 11,270
6. 18” HDPE	36 LF	$ 50	$ 1,800
7. 6’ Manhole	1 EA	$ 10,000	$ 10,000
8. 7’ Manhole	1 EA	$ 14,000	$ 14,000
9. CDOT Type C Area Inlet	9 EA	$ 6,037	$ 54,333
10. 16’ D-10-R Curb Inlet	1 EA	$ 13,835	$ 13,835
11. 20’ D-10-R Curb Inlet	1 EA	$ 20,000	$ 20,000
12. Concrete Drain Trench	710 LF	$ 200	$ 142,000
EDB (Pond 1)			
13. Concrete Forebays	1 EA	$ 7,000	$ 7,000
14. Trickle Channel	73 LF	$ 80	$ 5,840
15. 4’x4’ Outlet Structure	1 EA	$ 4,000	$ 4,000
16. Micropool	1 EA	$ 5,000	$ 5,000
17. Pond Earthworks	3,157 CY	$ 6	$ 18,942
18. Spillway	1 EA	$ 7,000	$ 7,000

19. Reseed/Stabilization	1 EA	$ 2,000	$ 2,000
20. Aggregate Base Course	306 CY	$ 66	$ 20,196
21. Stilling Basin	1 EA	$ 5,000	$ 5,000
		Total	**$ 501,041**

DRAINAGE FEES

This drainage report is part of a site development application; therefore, no drainage fees are due.

MAINTENANCE

The Extended Detention Basin is private and will be maintained by the property owner. The proposed storm sewers are private and will be maintained by the property owner.

SUMMARY

Development of this site will not adversely affect the surrounding development. Site runoff and storm drain appurtenances from the development will not adversely affect the downstream and surrounding developments and will be safely routed to the proposed extended detention basin and runoff reduced to the allowable pre-developed rates while slowly treating the water quality capture volume.

Unresolved:
Provide discussion earlier in report discussing suitable outfall location.

added discussion

PREPARED BY:
TERRA NOVA ENGINEERING, INC.

Dane Frank, P.E.
Project Engineer

Jobs/2419.00/Drainage/241900 FDR.doc

Unresolved:
Include reference section, listing any previous reports used/reviewed, as well as any manuals used.

added reference section

PLATTE SELF STORAGE
AREA RUNOFF COEFFICIENT (C) SUMMARY

EXISTING

BASIN	TOTAL AREA *(Acres)*	*DEVELOPED / IMPERVIOUS*			*UNDEVELOPED / NON-IMPERVIOUS*			*WEIGHTED*		*WEIGHTED CA*	
		AREA *(Acres)*	C_5	C_{100}	AREA *(Acres)*	C_5	C_{100}	C_5	C_{100}	CA_5	CA_{100}
OS-Z	6.34	1.90	0.90	0.96	4.44	0.08	0.35	0.33	0.53	2.07	3.38
OS-Y	8.15	0.82	0.90	0.96	7.33	0.08	0.35	0.16	0.41	1.32	3.35
OS-X	1.20	0.02	0.90	0.96	1.18	0.08	0.35	0.09	0.36	0.11	0.43
OS-W	0.45	0.11	0.90	0.96	0.34	0.08	0.35	0.28	0.50	0.13	0.22
EX-A	0.30	0.05	0.90	0.96	0.25	0.08	0.35	0.22	0.45	0.07	0.14
EX-B	0.64	0.29	0.90	0.96	0.35	0.08	0.35	0.45	0.63	0.29	0.40
EX-C	15.4	7.70	0.90	0.96	7.70	0.08	0.35	0.49	0.66	7.55	10.09
EX-D	1.05	0.02	0.90	0.96	1.03	0.08	0.35	0.10	0.36	0.10	0.38
EX-E	0.16	0.00	0.90	0.96	0.16	0.08	0.35	0.08	0.35	0.01	0.06
EX-F	0.23	0.00	0.90	0.96	0.23	0.08	0.35	0.08	0.35	0.02	0.08
Total	33.92	10.91									

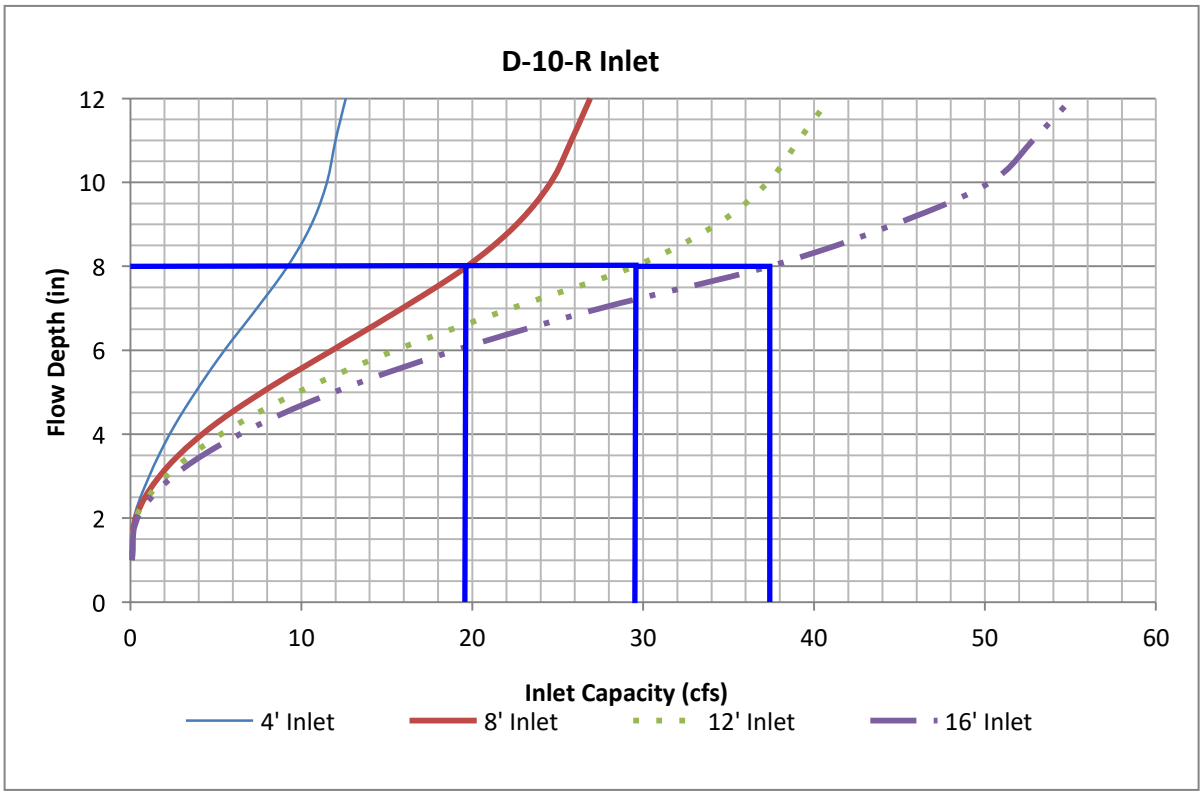
Calc:	DLF
Date:	8/5/2024
Checked:	JS

Please keep existing items together and proposed together, as was done in previous submittal.

done

2419.00
Curb Inlet Capacity

Figure 8-12. Inlet Capacity Chart Sump Conditions, Curb Opening (D-10-R) Inlet



- A 8' inlet has a capacity of 19.5 cfs.
- A 12' inlet has a capacity of 29.5 cfs.
- A 16' inlet has a capacity of 37.0 cfs.
- Combining 8' and 12' inlets would give a capacity of 49 cfs for a 20' inlet.

D-10-R inlets are used in the city. County uses CDOT Type R inlets. Please revise

changed to Type R and updated calcs with correct chart for Type R and Type C

MHFD Inlet spreadsheet has all 3 inlet types available (Type R, Type C and Type 13). Suggest using that spreadsheet for inlet design.

used for type 13 inlets that have by-pass flows at DP3A-3D

Paul A. Hindman, Executive Director
2480 W. 26th Avenue, Suite 156B
Denver, CO 80211-5304

Telephone 303-455-6277
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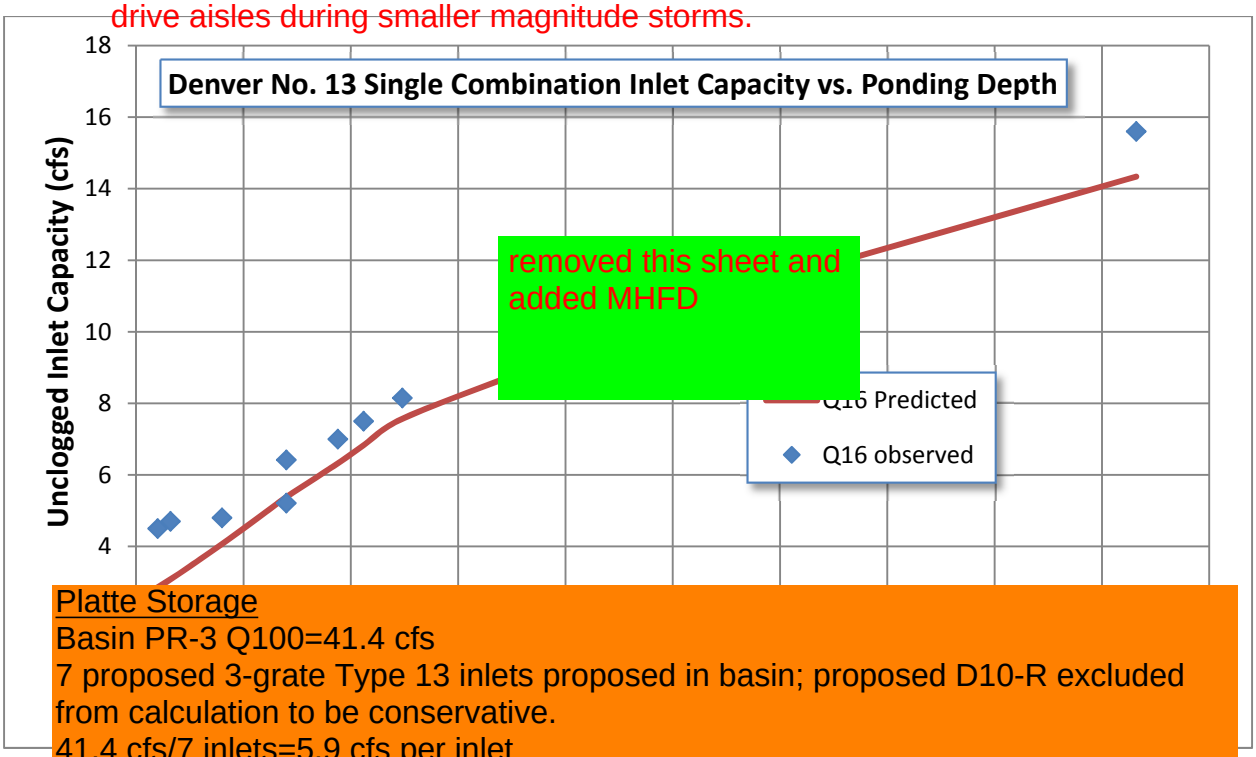
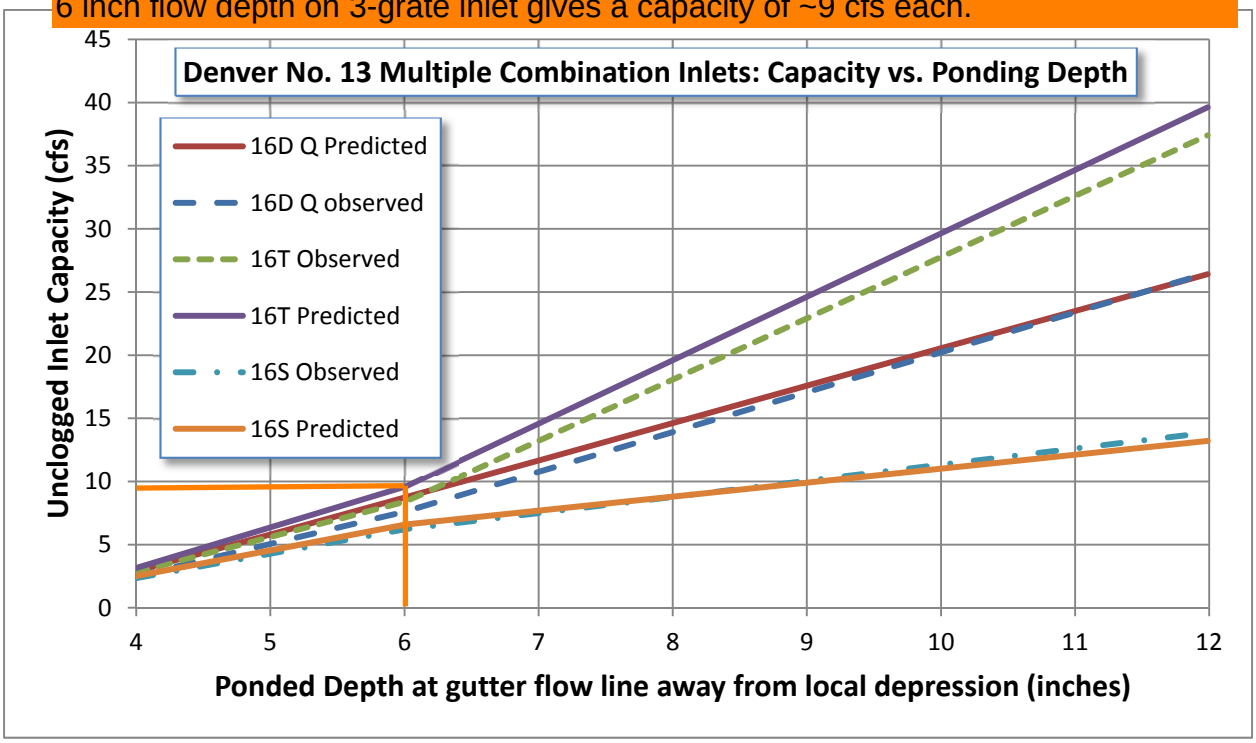
www.udfcd.org

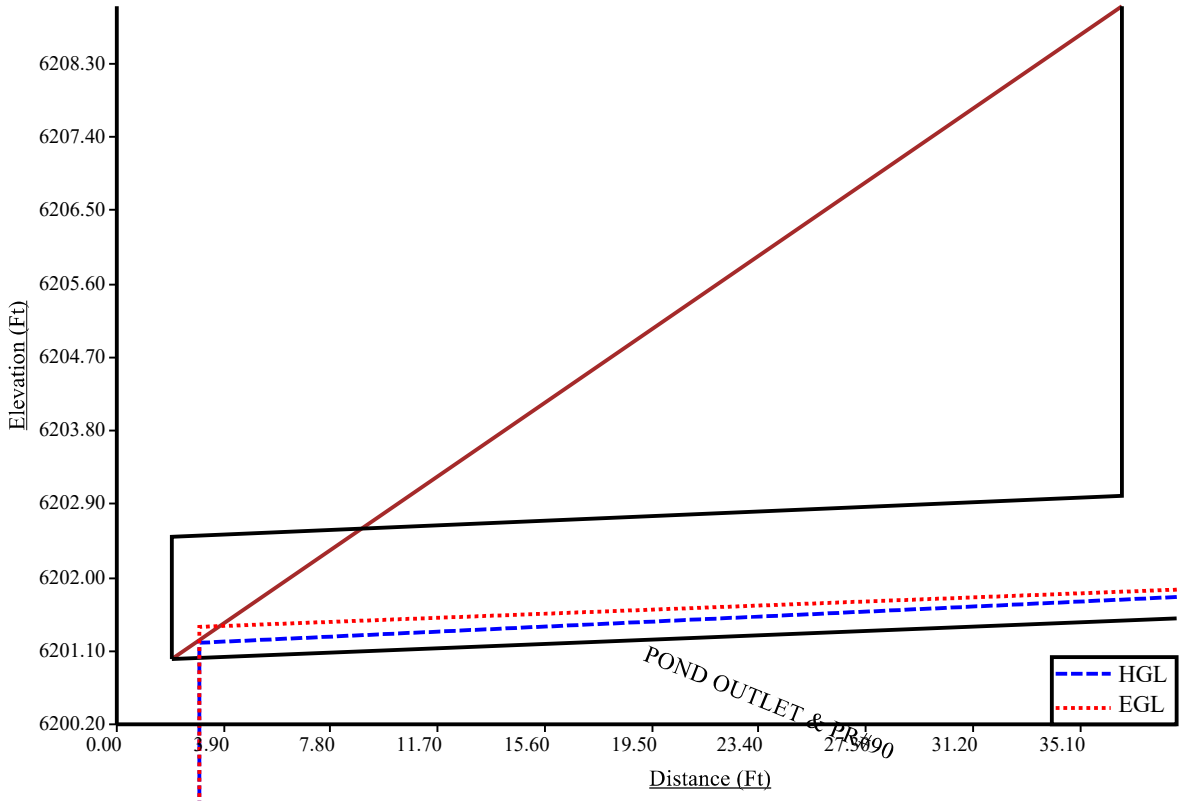
Note to County Reviewer: The type 13 area inlets on this project have zero flow requirements (even with 100% bypass on them the storm system still functions properly). They are being used for junctions and to reduce the amount of runoff in the drive aisles during smaller magnitude storms.



Platte Storage
Basin PR-3 Q100=41.4 cfs
7 proposed 3-grate Type 13 inlets proposed in basin; proposed D10-R excluded from calculation to be conservative.
41.4 cfs/7 inlets=5.9 cfs per inlet
6 inch flow depth on 3-grate inlet gives a capacity of ~9 cfs each.



Pond Outlet



fixed

Why do these lines drop off? Verify input information

DETENTION CALCULATIONS

Provide spillway riprap sizing calcs

it's a concrte spillway

added new chart and map

Unresolved from Submittal 1: We need to know how much of the proposed area of disturbance (not just the impervious surfaces) is treated vs untreated and if there are any exclusions that apply to the untreated areas. So please create a basic overview map (or modify an existing drainage map) with color shading/hatching that shows areas tributary to each PBMP (pond, runoff reduction, etc.) and those disturbed areas that are not treated by a PBMP, with the applicable exclusion labeled (ex: 20% up to 1ac of development can be excluded per ECM App I.7.1.C.1 and exclusions listed in ECM App I.7.1.B.#). An accompanying summary table on this map would also be very helpful (example provided):

DRAINAGE MAPS

Water Quality Treatment Summary Table

Basin ID	Total Area (ac)	Total Proposed Disturbed Area (ac)	Area Trib to Pond A (ac)	Disturbed Area Treated via Runoff Reduction (ac)	Disturbed Area Excluded from WQ per ECM App I.7.1.C.1 (ac)	Disturbed Area Excluded from WQ per ECM App I.7.1.B.# (ac)	Applicable WQ Exclusions (App I.7.1.B.#)
A	4.50	4.50	4.50				
B	1.25	1.25		1.25			
C	6.00	4.00				4.00	ECM App I.7.1.B.5
D	2.50	2.50	1.00		0.50	1.00	ECM App I.7.1.B.7
E	3.00		3.00				
F	8.25						
Total	25.50	12.25	8.50	1.25	0.50	5.00	
Comments		*[For each row, the sum of the values in Columns 4-7 must be greater than or equal to the value in Column 3 above.]*	*[Values in this column can be more than Column 3 if over-treating non-disturbed areas of the same land-use.]*	*[See RR calc spreadsheet.]*	*[Total must be <20% of site and <1ac.]*		

Total Proposed Disturbed Area (ac)	Total Proposed Treated Area (ac)	Total Proposed Disturbed Area Excluded from WQ (ac)	Minimum Area to be Treated (ac)
12.25	9.75	5.50	6.75

PLATTE SELF STORAGE
SITE DEVELOPMENT PLAN
EXISTING DRAINAGE MAP
AUGUST 2024

LEGEND

- P-7 / 12.22 / 84 %imp — BASIN DESIGNATION, AREA IN BASIN (AC), PERCENT IMPERVIOUS
- D — DESIGN POINT
- BASIN BOUNDARY
- EXISTING 1' CONTOUR
- GROUND SURFACE FLOW DIRECTION
- ROAD AND DITCH FLOW DIRECTION
- TIME OF CONCENTRATION PATH

NOTES

1. BROWN GROUND SURFACE CONTOURS ARE LIDAR DATA DOWNLOADED FROM THE COLORADO HAZARD MAPPING & RISK MAP PORTAL, DATA SET: 2018 3DEP EAST CO EL PASO. THIS DATA IS APPROXIMATE. LIDAR DATA IS FROM 2018 AND AT 2' INTERVALS.

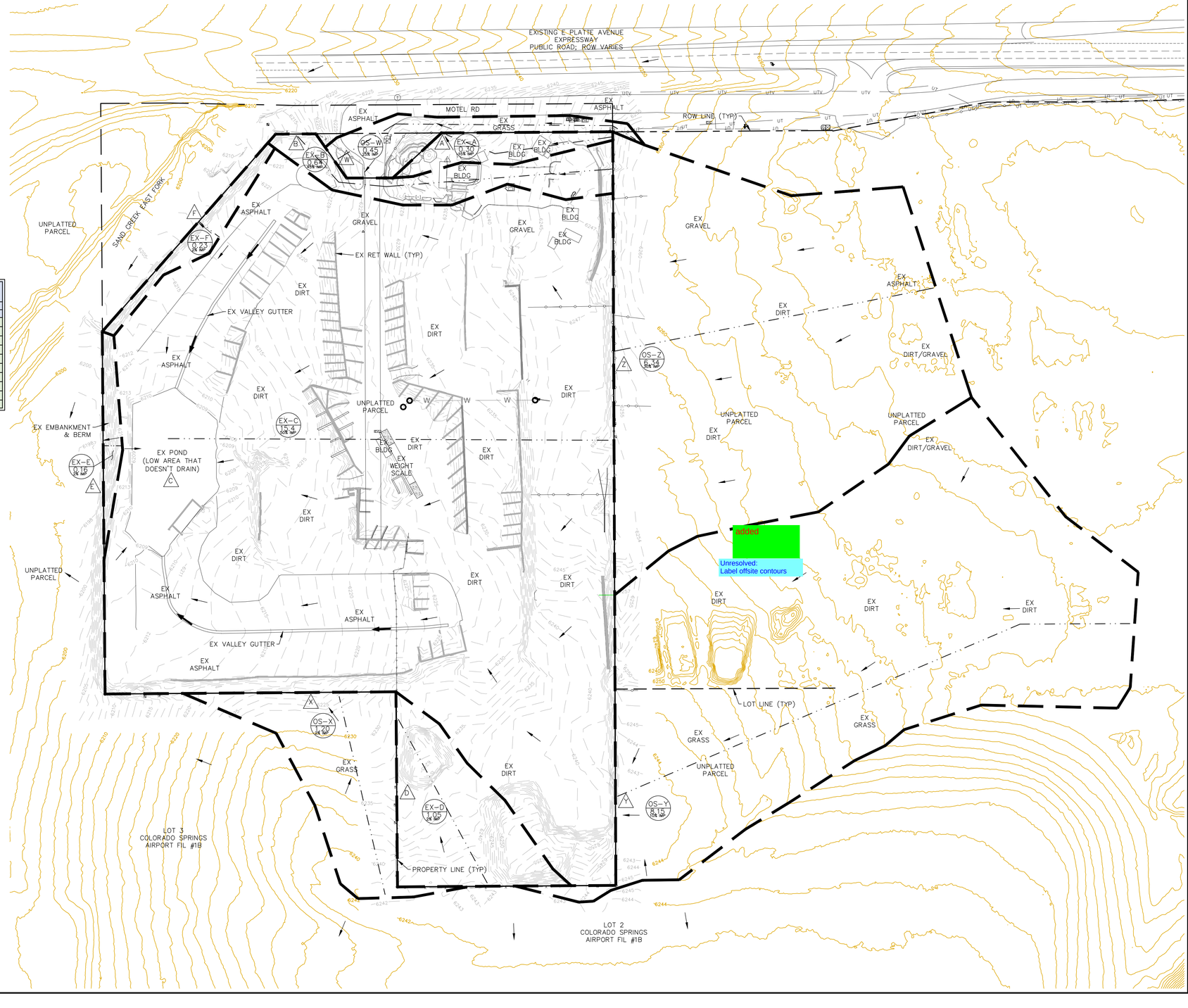
2. THE EXISTING SITE IS A LANDSCAPING MATERIALS YARD. GROUND SURFACES ARE DIRT, GRAVEL, AND ASPHALT. THE EDGE OF ASPHALT IS OFTEN COVERED BY DIRT/GRAVEL AND IT'S EXTENTS ARE ONLY ROUGHLY KNOWN.

BASIN SUMMARY

BASIN	AREA TOTAL	WEIGHTED		OVERLAND				STREET / CHANNEL FLOW				TC	INTENSITY		TOTAL FLOWS	
		C5	C100	C5	Length	Slope	Ti	Length	Slope	Velocity	Tt	TOTAL	I5	I100	Q5	Q100
	(Acres)				(ft)	(ft/ft)	(min)	(ft)	(%)	(fps)	(min)	(min)	(in/hr)	(in/hr)	(c.f.s.)	(c.f.s.)
OS-Z	6.34	0.33	0.53	0.33	300	0.02	19.3	230	2.0%	1.4	2.7	22.0	2.9	4.9	6.1	16.7
OS-Y	8.15	0.16	0.41	0.16	300	0.03	20.4	505	3.0%	1.7	4.9	25.3	2.7	4.6	3.6	15.4
OS-X	1.20	0.09	0.36	0.09	300	0.05	18.5	0	5.0%	2.2	0.0	18.5	3.2	5.4	0.4	2.3
OS-W	0.45	0.28	0.50	0.28	300	0.07	13.5	160	7.0%	2.6	1.0	14.5	3.6	6.0	0.5	1.3
EX-A	0.30	0.22	0.45	0.22	300	0.07	14.5	0	7.0%	2.6	0.0	14.5	3.6	6.0	0.2	0.8
EX-B	0.64	0.45	0.63	0.45	300	0.07	10.7	250	7.0%	2.6	1.6	12.2	3.8	6.4	1.1	2.6
EX-C	15.4	0.49	0.66	0.49	300	0.07	10.0	330	7.0%	2.6	2.1	12.1	3.8	6.4	29.0	65.0
EX-D	1.05	0.10	0.36	0.10	300	0.03	21.9	40	3.0%	1.7	0.4	22.2	2.9	4.9	0.3	1.9
EX-E	0.16	0.08	0.35	0.08	30	0.40	3.0	0	40.0%	6.3	0.0	5.0	5.2	8.7	0.1	0.5
EX-F	0.23	0.08	0.35	0.08	35	0.24	3.8	0	24.0%	4.9	0.0	5.0	5.2	8.7	0.1	0.7

DESIGN POINT SUMMARY

Design Point(s)	*Contributing Basins*	*Area*	*Flow (cfs)*	
		(ac)	*Q5*	*Q100*
Z	**OS-Z**	6.34	6.1	16.7
Y	**OS-Y**	8.15	3.6	15.4
X	**OS-X & DP D**	2.25	0.7	4.2
W	**OS-W & DP A**	0.75	0.7	2.2
A	**EX-A**	0.30	0.2	0.8
B	**EX-B & DP W**	1.39	1.8	4.7
C	**EX-C, DP D, DP X, & DP Y**	26.85	33.6	86.5
D	**EX-D**	1.05	0.3	1.9
E	**EX-E**	0.16	0.1	0.5
F	**EX-F**	0.23	0.1	0.7



REVISIONS		
NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
RMG–ROCKY MOUNTAIN GROUP
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5085 LIST DR. #200
COLORADO SPRINGS, CO 80919
719.548.0600

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Creative Civil Engineering Solutions since 1994
731 S. 23RD STREET
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PLATTE SELF STORAGE

EXISTING DRAINAGE MAP

DESIGNED BY DLF
DRAWN BY DLF
CHECKED BY LD
H–SCALE AS SHOWN
V–SCALE N/A
JOB NO. 2419.00
DATE ISSUED 08/14/24
SHEET NO. 1 OF 3

PLATTE SELF STORAGE

SITE DEVELOPMENT PLAN

PROPOSED DRAINAGE MAP

AUGUST 2024

LEGEND

- P-7 / 12.22 / 45 (AC) — BASIN DESIGNATION, AREA IN BASIN (AC), PERCENT IMPERVIOUS
- D — DESIGN POINT
- BASIN BOUNDARY
- EXISTING 1' CONTOUR
- 6231 — PROPOSED CONTOURS – 1'
- EXISTING PROPERTY LINE
- PROPOSED FENCE
- PROPOSED RETAINING WALL
- PROPOSED RIPRAP
- GROUND SURFACE FLOW DIRECTION
- ROAD AND DITCH FLOW DIRECTION
- TIME OF CONCENTRATION PATH
- S# — SWALE IDENTIFIER

NOTES

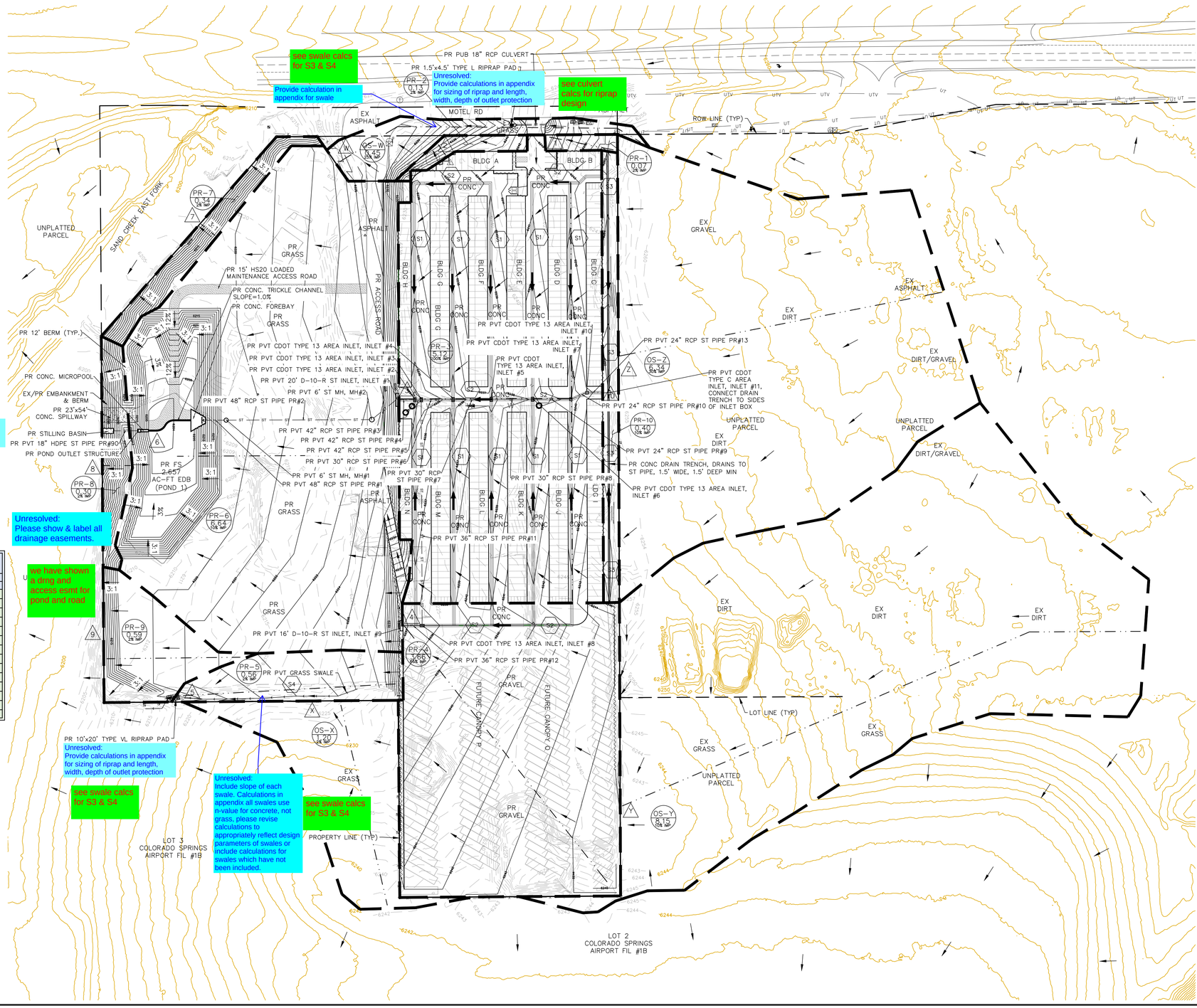
1. BROWN GROUND SURFACE CONTOURS ARE LIDAR DATA DOWNLOADED FROM THE COLORADO HAZARD MAPPING & RISK MAP PORTAL, DATA SET: 2018 3DEP EAST CO EL PASO. THIS DATA IS APPROXIMATE. LIDAR DATA IS FROM 2018 AND AT 2' INTERVALS.

Unresolved: Provide calculations in appendix for sizing of stilling basin

see appendix for calcs

Unresolved: Please show & label all drainage easements.

we have shown a dmg and access esmt for pond and road



BASIN SUMMARY

BASIN	AREA TOTAL	WEIGHTED		OVERLAND				STREET / CHANNEL FLOW				TC	INTENSITY		TOTAL FLOWS	
		C5	C100	C5	Length	Slope	Ti	Length	Slope	Velocity	Tt	TOTAL	I5	I100	Q5	Q100
	(Acres)				(ft)	(ft/ft)	(min)	(ft)	(%)	(fps)	(min)	(min)	(in/hr)	(in/hr)	(c.f.s.)	(c.f.s.)
OS-Z	6.34	0.33	0.53	0.33	300	0.02	19.3	230	2.0%	1.4	2.7	22.0	2.9	4.9	6.1	16.7
OS-Y	8.15	0.16	0.41	0.16	300	0.03	20.4	505	3.0%	1.7	4.9	25.3	2.7	4.6	3.6	15.4
OS-X	1.20	0.09	0.36	0.09	300	0.05	18.5	0	5.0%	2.2	0.0	18.5	3.2	5.4	0.4	2.3
OS-W	0.45	0.28	0.50	0.28	300	0.07	13.5	160	7.0%	2.6	1.0	14.5	3.6	6.0	0.5	1.3
PR-1	0.07	0.08	0.35	0.08	100	0.08	9.3	0	8.0%	2.8	0.0	9.3	4.2	7.1	0.0	0.2
PR-2	0.13	0.08	0.35	0.08	45	0.25	4.3	0	25.0%	5.0	0.0	5.0	5.2	8.7	0.1	0.4
PR-3	5.12	0.90	0.96	0.90	100	0.02	2.9	450	2.0%	2.8	2.7	5.5	5.0	8.4	23.1	41.4
PR-4	3.66	0.61	0.75	0.61	100	0.02	7.0	400	2.0%	1.0	6.7	13.7	3.7	6.1	8.2	16.8
PR-5	0.56	0.09	0.36	0.09	300	0.02	25.0	0	2.0%	1.0	0.0	25.0	2.8	4.6	0.1	0.9
PR-6	6.64	0.16	0.41	0.16	300	0.02	23.3	0	2.0%	1.0	0.0	23.3	2.9	4.8	3.1	13.1
PR-7	0.34	0.10	0.37	0.10	25	0.33	2.8	0	33.0%	4.0	0.0	5.0	5.2	8.7	0.2	1.1
PR-8	0.30	0.11	0.37	0.11	35	0.33	3.3	0	33.0%	4.0	0.0	5.0	5.2	8.7	0.2	1.0
PR-9	0.59	0.09	0.36	0.09	100	0.06	10.1	0	6.0%	1.7	0.0	10.1	4.1	6.9	0.2	1.5
PR-10	0.40	0.16	0.41	0.16	10	0.33	1.7	350	1.0%	2.0	2.9	5.0	5.2	8.7	0.3	1.4

DESIGN POINT SUMMARY

Design Point(s)	*Contributing Basins*	*Area*	*Flow (cfs)*	
		(ac)	*Q5*	*Q100*
1	**PR-1**	0.07	0.0	0.2
2	**PR-2**	0.13	0.1	0.4
3	**PR-3, DP 4, & DP 10**	23.67	41.4	91.7
4	**PR-4 & DP Y**	11.81	11.8	32.2
5	**PR-5 & DP X**	1.76	0.5	3.3
6	**PR-6 & DP 3**	30.31	44.4	104.8
7	**PR-7**	0.34	0.2	1.1
8	**PR-8**	0.30	0.2	1.0
9	**PR-9**	0.59	0.2	1.5
10	**PR-10 & DP Z**	6.74	6.4	18.1
W	**OS-W**	0.45	0.5	1.3
X	**OS-X**	1.20	0.4	2.3
Y	**OS-Y**	8.15	3.6	15.4
Z	**OS-Z**	6.34	6.1	16.7

REVISIONS

NO.	DESCRIPTION	DATE

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PLATTE SELF STORAGE

PROPOSED DRAINAGE MAP

DESIGNED BY DLF
DRAWN BY DLF
CHECKED BY LD
H–SCALE AS SHOWN
V–SCALE N/A
JOB NO. 2419.00
DATE ISSUED 08/14/24
SHEET NO. 2 OF 3