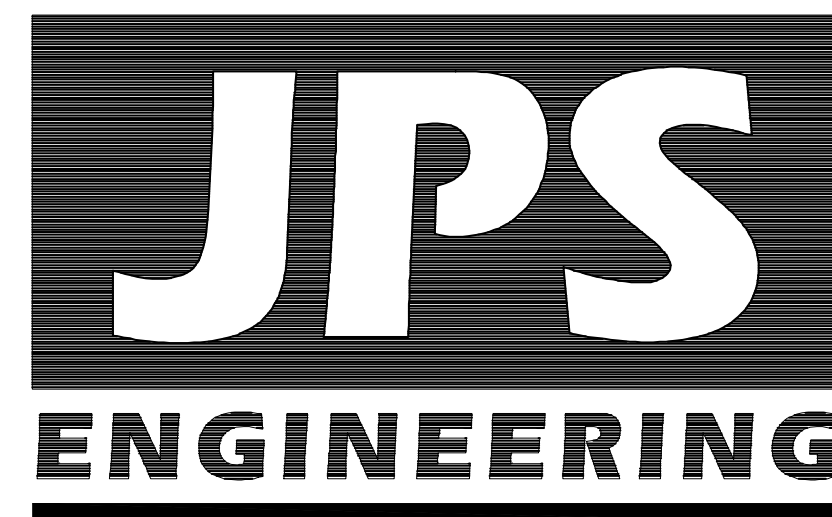


Struthers Ranch Polaris Grading & Erosion Control Plans El Paso County, Colorado

PREPARED FOR:
HAMMERS CONSTRUCTION
1411 Woolsey Heights
Colorado Springs, CO 80915

PREPARED BY:



PREPARED BY:
19 East Willamette Avenue
Colorado Springs, Colorado 80903
August, 2022

AGENCIES/CONTACTS

DEVELOPER:	HAMMERS CONSTRUCTION 1411 WOOLSEY HEIGHTS COLORADO SPRINGS, CO 80915 MR. RANDY MAXWELL (719) 570-1599	WATER/WASTEWATER:	DONALA WATER & SANITATION DISTRICT 15850 HOLBEIN DR. COLORADO SPRINGS, CO 80921 (719)488-3603
CIVIL ENGINEER:	JPS ENGINEERING, INC. 19 E. WILLAMETTE AVENUE COLORADO SPRINGS, CO 80903 MR. JOHN P. SCHWAB, P.E. (719)477-9429	GAS DEPARTMENT:	BLACK HILLS ENERGY MR. SEBASTIAN SCHWENDER (719)399-3176
LOCAL ROADS & DRAINAGE:	EL PASO COUNTY PCD 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 (719)520-6300	ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN ROAD COLORADO SPRINGS, CO 80908 MR. DAVE WALDNER (719)495-2283
		TELEPHONE COMPANY:	CENTURY LINK COMMUNICATIONS (LOCATORS) (800)922-1987 A.T. & T. (LOCATORS) (719)635-3674

GEC PLAN SHEET INDEX

C1.0	GEC PLAN TITLE SHEET
G2	GENERAL NOTES & LEGEND
C1.1	SITE GRADING & EROSION CONTROL PLAN
C3.1	DETENTION POND PLAN & DETAILS
C4.1	CIVIL & EROSION CONTROL DETAILS
C4.2	EROSION CONTROL NOTES & DETAILS

ENGINEER:

DESIGN ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR LIABILITY CAUSED BY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

JOHN P. SCHWAB, P.E. #29891

DATE

OWNER/DEVELOPER'S STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

NAME:HAMMERS CONSTRUCTION
ADDRESS:1411 WOOLSEY HEIGHTS
COLORADO SPRINGS, CO 80915
PHONE: (719) 570-1599 EMAIL: rmaxwell@hammersconstruction.com

DATE

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

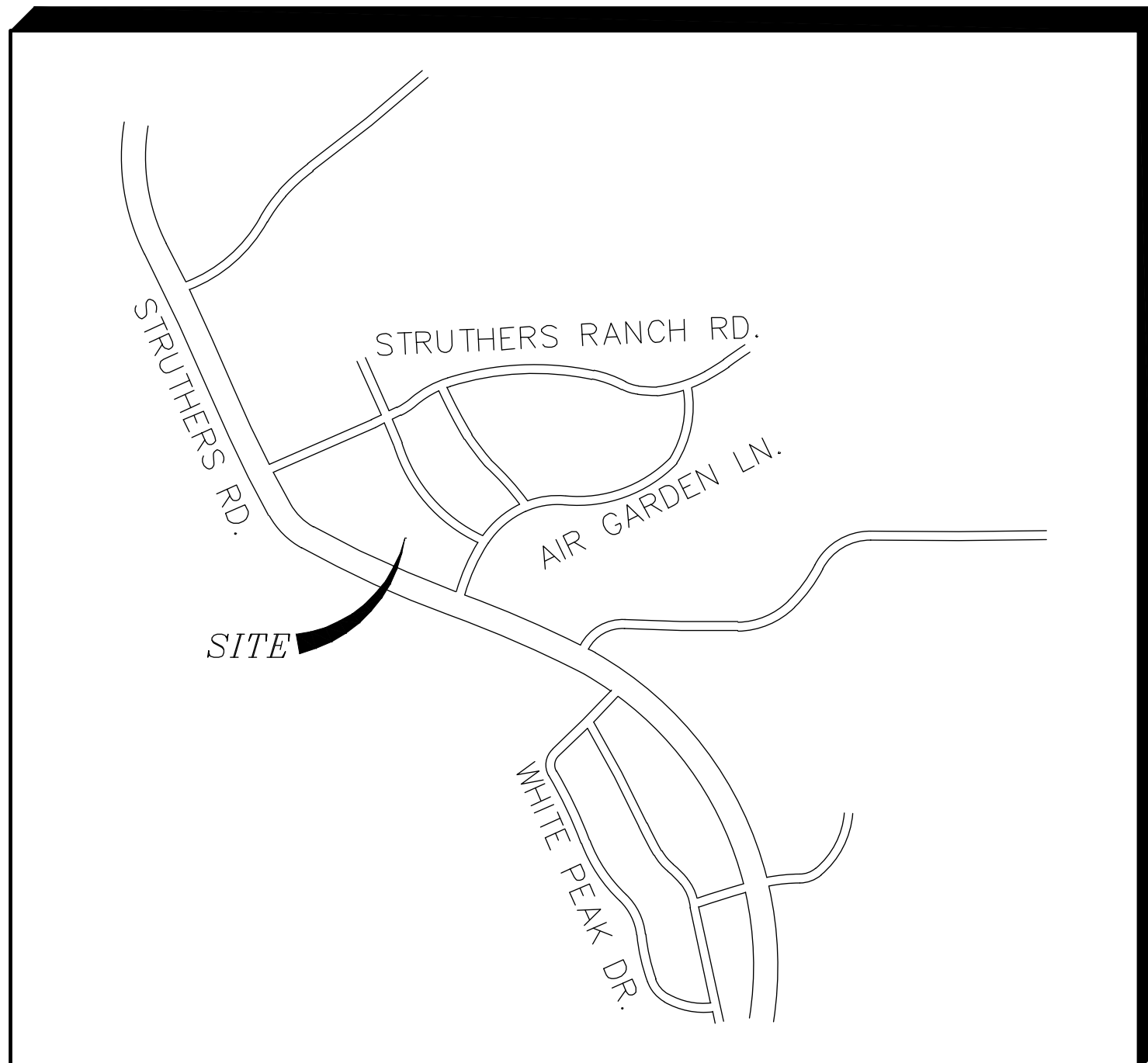
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THEY WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

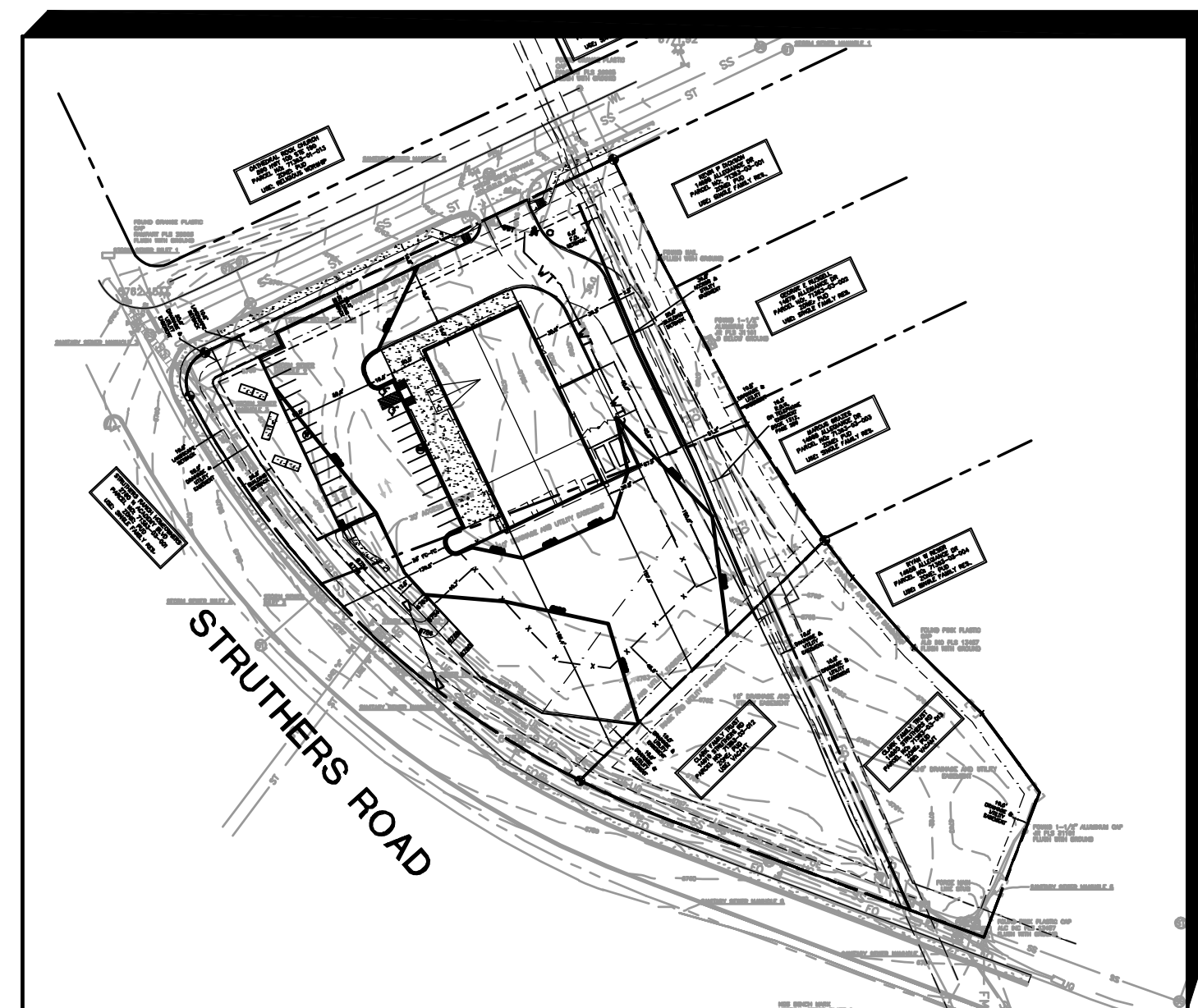
JENNIFER IRVINE, P.E.,
COUNTY ENGINEER / ECM ADMINISTRATOR

DATE

PCD FILE NO. XXX

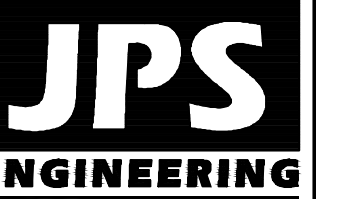


VICINITY MAP
NOT TO SCALE

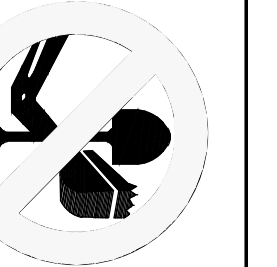


SITE MAP
NTS

BENCHMARK.
SOUTHWEST OF SOUTHERLY CORNER
ELEV. 6707.46'(NAVD-1988)



19 E. Willamette Ave.
Colorado Springs, CO
80903
PH: 719-477-9429
FAX: 719-471-0766
www.jpsegr.com



CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MEMBER UTILITIES.

NO.	REVISION	BY	DATE
A	EPC SUBMITTAL		08/10/22

STRUTHERS RANCH POLARIS
LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4

GEC PLAN
TITLE SHEET

HORIZ. SCALE:	N/A	DRAWN:	PV
VERT. SCALE:	N/A	DESIGNED:	JPS
SURVEYED:	COMPASS	CHECKED:	JPS
CREATED:	05/27/20	LAST MODIFIED:	08/10/22
PROJECT NO.:	032203	MODIFIED BY:	PV

C1.0

PPR2248

CONSTRUCTION CONTROL MEASURE PHASING:

INITIAL CCM'S:

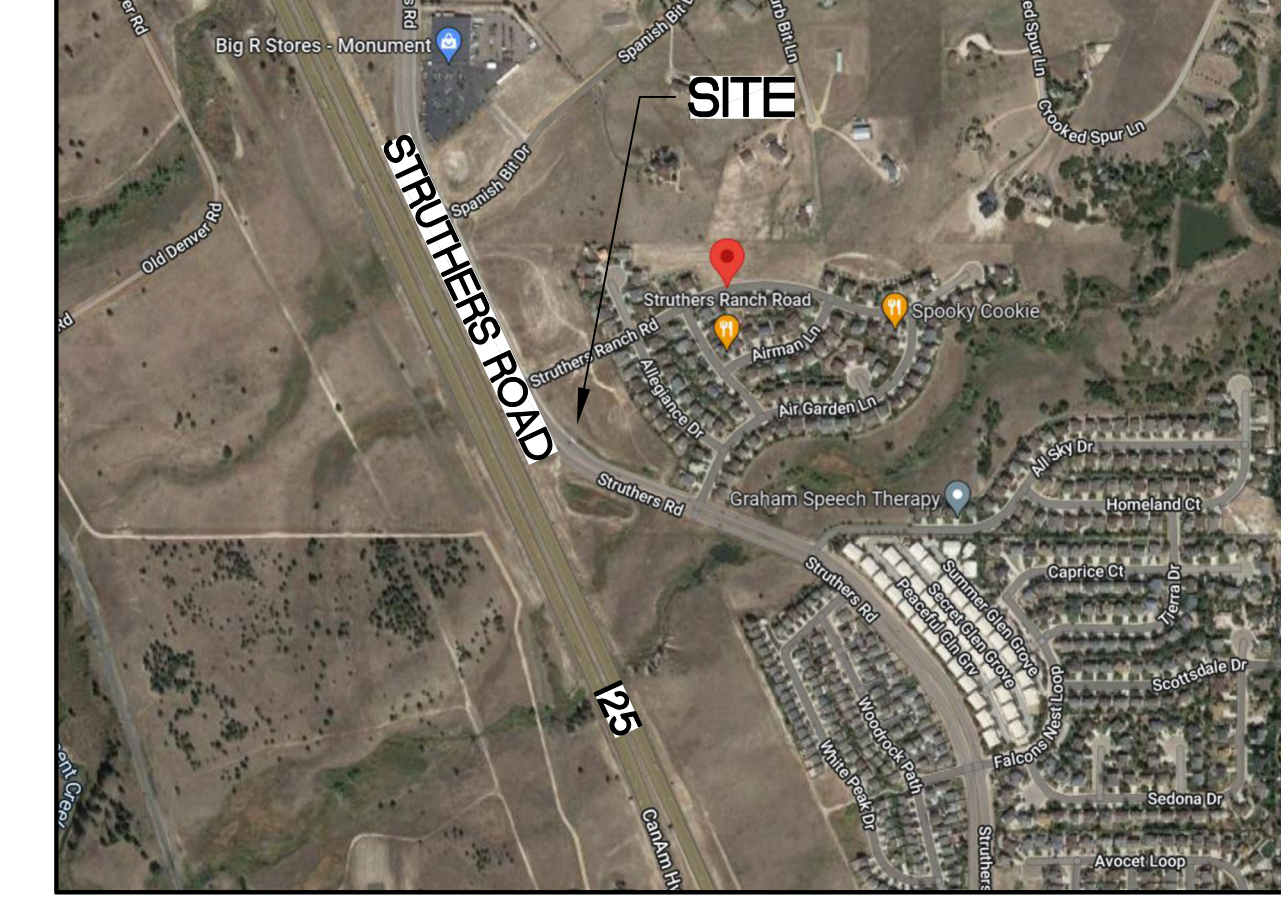
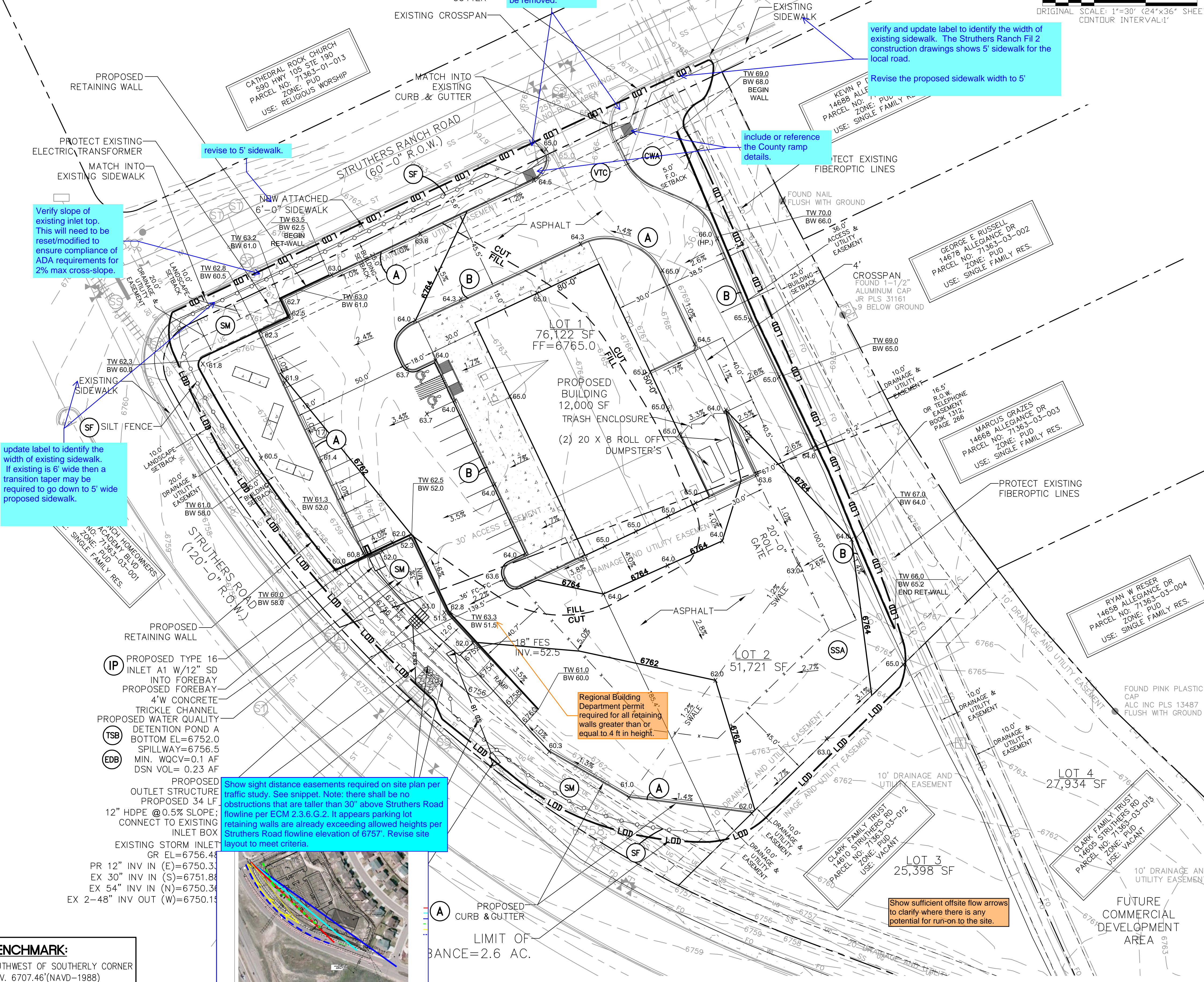
- VTC
- SF ALONG DOWNSTREAM LIMITS
- SEDIMENT BASIN

INTERIM CCM'S:

- INLET PROTECTION
- TEMPORARY SEED & MULCH

FINAL CCM'S:

- SEEDING & MULCHING



VICINITY MAP

KEYED NOTES:

- 1 TOPSOIL & STRIPPING STOCKPILE AREA
- 2 CONTRACTOR MAY WASTE EXCESS CUT MATERIAL OR BORROW SUITABLE FILL MATERIAL FROM THIS AREA. MAINTAIN POSITIVE DRAINAGE & MATCH INTO EXISTING GRADES WITH 3:1 MAX. SLOPE.
- 3 PREPARE AND COMPACT BUILDING FOUNDATION & SLABS PER PROJECT GEOTECHNICAL REPORT
- 4 PARKING LOT PAVING PER GEOTECHNICAL REPORT (4" ASPHALT OVER 6" AGGREGATE BASE UNLESS NOTED OTHERWISE)
- 5 STORAGE AREA FOR BUILDING MATERIALS, EQUIPMENT & CONSTRUCTION WASTE (CONTRACTOR MAY ADJUST AS NEEDED)
- 6 MIN 4'x4' CONCRETE LANDING AT DOOR W/2.0% SLOPE AWAY FROM BUILDING

ESTIMATED EARTHWORK QUANTITY:

UNCLASSIFIED EXCAVATION (TOTAL CUT) = 4,148 CY
 * TOTAL FILL = 1,262 CY
 NET (CUT) = 2,697 CY
 * (ASSUMES 15% COMPACTION FACTOR)

NOTE: THIS ESTIMATE IS PROVIDED FOR INFORMATION ONLY, REPRESENTING THE CALCULATED BULK EARTHWORK VOLUME TO FINISHED GRADE, EXCLUDING ANY ADJUSTMENT FOR PAVEMENT DEPTHS, ETC. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES AS BASIS FOR BID PRICING AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

EROSION CONTROL LEGEND

LEGEND:

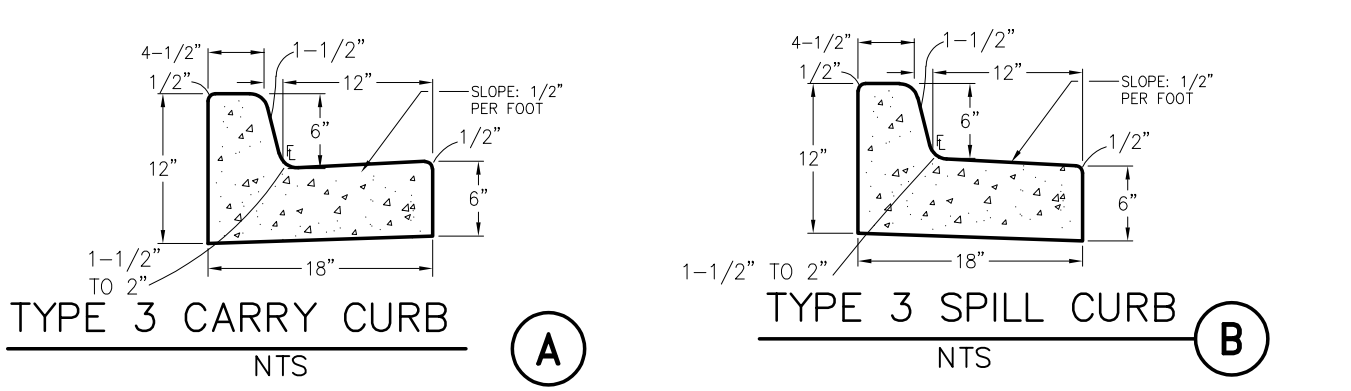
- (SF) SILT FENCE
- (VTC) VEHICLE TRACKING PAD
- (IP) INLET PROTECTION
- (SM) SEED & MULCH
- (CWA) CONCRETE WASHOUT AREA
- (TSB) TEMPORARY SEDIMENT BASIN
- (EDB) EXTENDED DETENTION BASIN
- (SSA) STABILIZED STAGING AREA

--- PROPERTY LINE
 --- EASEMENT LINE
 -6762- PROPOSED CONTOUR
 -6762- EXISTING CONTOUR
 X 49.0 PROPOSED SPOT ELEVATION (FLOWLINE)
 X 74.5 EXIST. SPOT ELEVATION
 TW TOP OF RETAINING WALL
 BW BOTTOM OF RETAINING WALL
 -CUT- CUT/FILL DEMARCATION LINE
 -FILL- FILL
 -LOD- LIMIT OF CONSTRUCTION/DISTURBANCE

DS DOWNSPOUT CONNECTION TO STORM SEWER. INSTALL TRANSITION COUPLINGS & EXTEND 6" PVC (SDR35) AT 1.0% MIN. SLOPE TO SD

NOTE: ALL EROSION CONTROL MEASURES SHALL CONFORM TO CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL, VOLUME 2 REQUIREMENTS

GEC Checklist Item "1" - add a note about condition of existing vegetation.



**STRUTHERS RANCH POLARIS
 LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4**

JPS ENGINEERING
 19 E. Willamette Ave.
 Colorado Springs, CO 80903
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 1-800-922-1987
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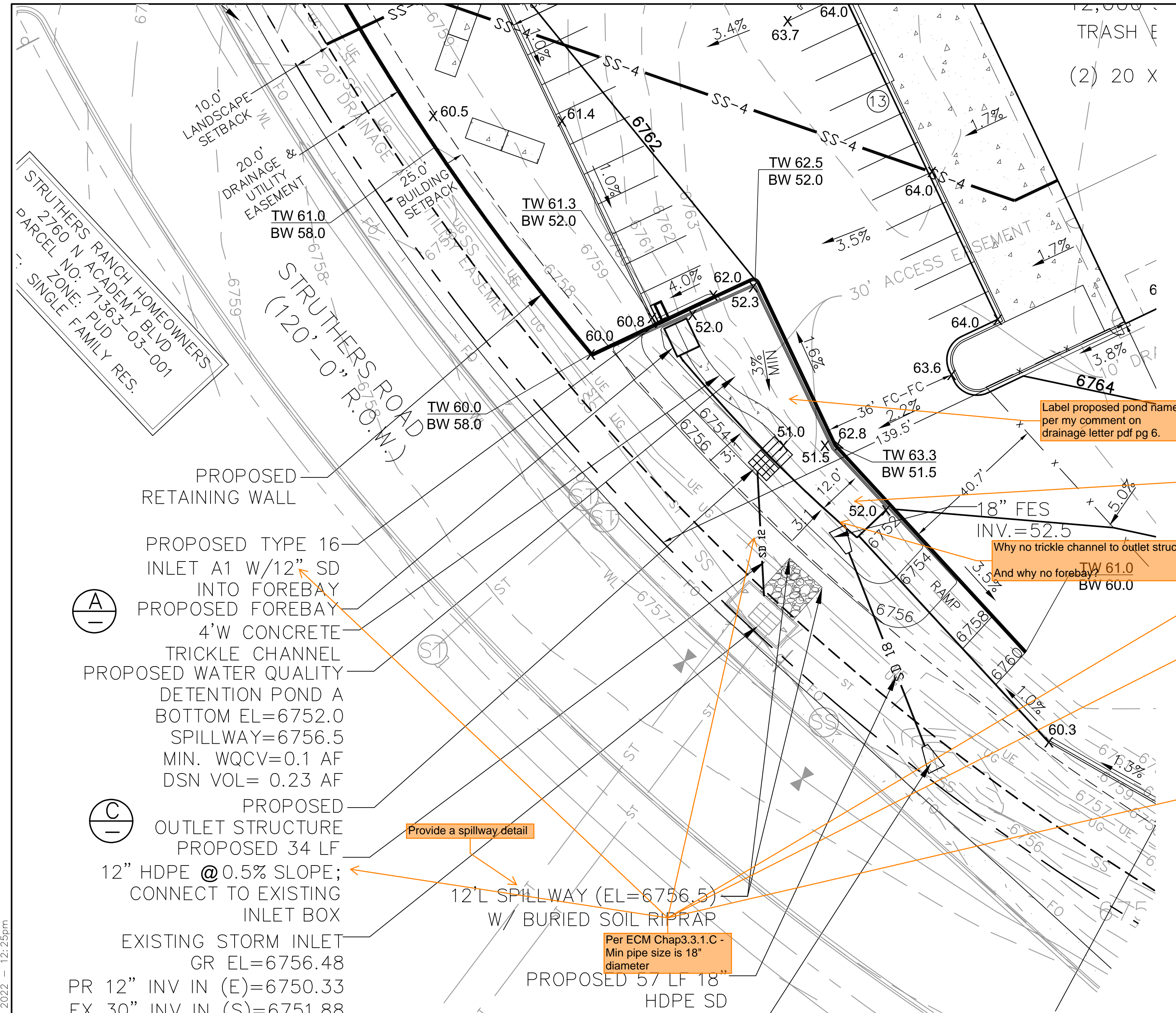
No.	REVISION	DATE
A	EPC SUBMITTAL	08/10/22
B		
C		
D		

**SITE GRADING AND
 EROSION CONTROL PLAN**

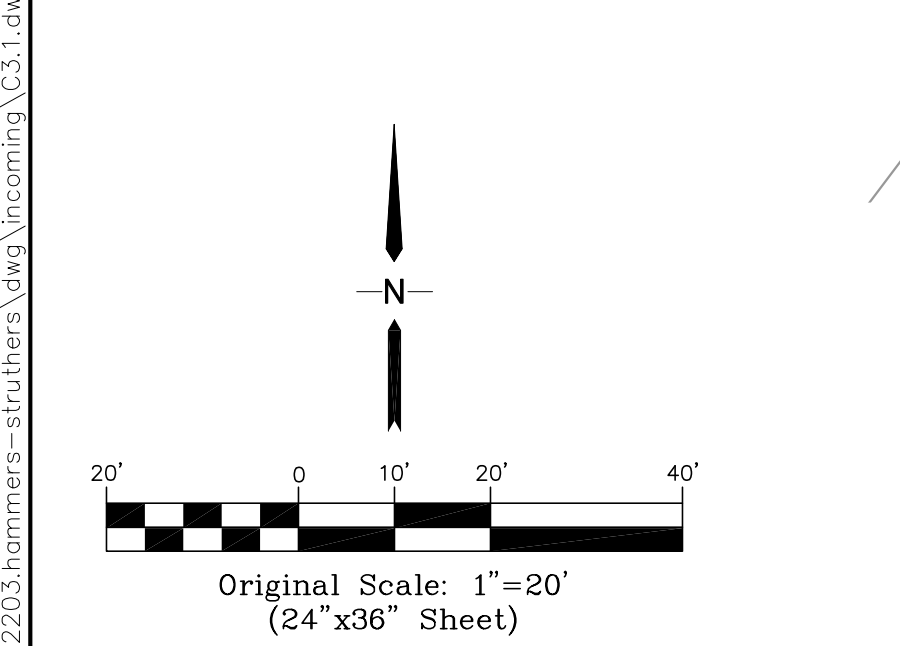
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VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: COMPASS	CHECKED: JPS
CREATED: 05/27/20	LAST MODIFIED: 08/10/22
PROJECT NO: 032203	MODIFIED BY: PV
SHEET:	C1.1

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C:\Users\Owner\Desktop\jpsprojects\032203\homers-struthers.dwg\incoming\C3.1.dwg Aug 10, 2022 - 12:25pm



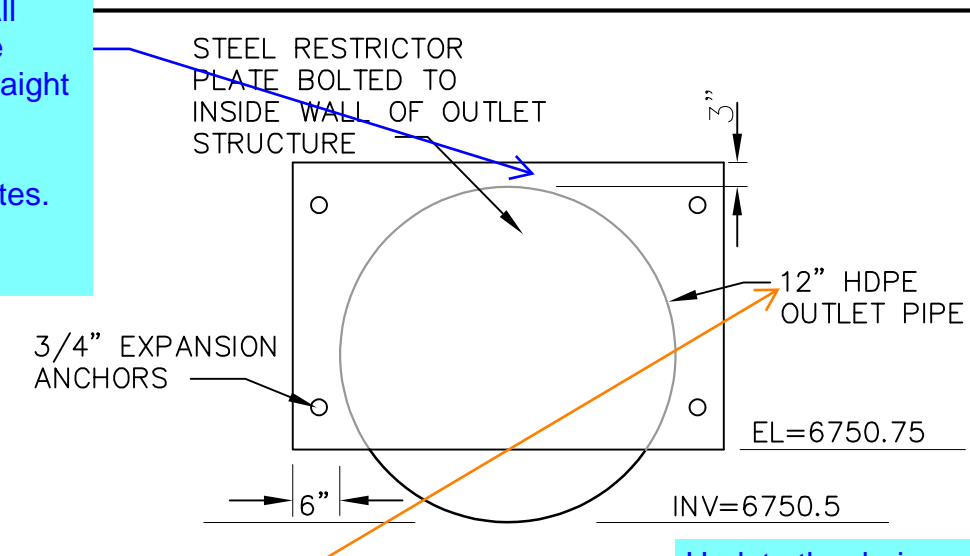
PROPOSED TYPE 16 INLET A1 W/12" SD INTO FOREBAY
PROPOSED FOREBAY 4'W CONCRETE TRICKLE CHANNEL
PROPOSED WATER QUALITY DETENTION POND A
BOTTOM EL=6752.0
SPILLWAY=6756.5
MIN. WQCV=0.1 AF
DSN VOL= 0.23 AF
PROPOSED OUTLET STRUCTURE
PROPOSED 34 LF 12" HDPE @ 0.5% SLOPE; CONNECT TO EXISTING INLET BOX
EXISTING STORM INLET GR EL=6756.48
PR 12" INV IN (E)=6750.33
EX 30" INV IN (S)=6751.88
EX 54" INV IN (N)=6750.36
EX 2-48" INV OUT (W)=6750.15



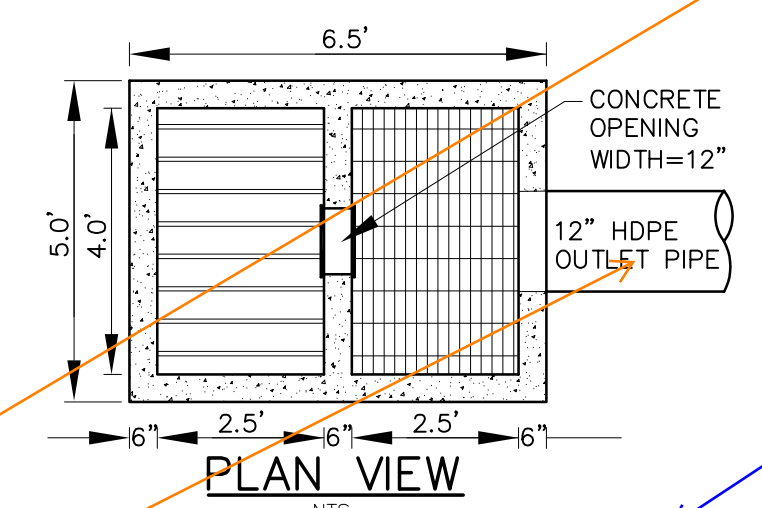
Original Scale: 1"=20'
(24"x36" Sheet)

Remove or explain why a restrictor plate is necessary since the pond is designed for water quality only.
The pond should be designed so WQCV release is controlled by the orifice plate upstream of the restriction plate. All other flows going into the top of the outlet structure should just pass straight through the outlet pipe and into the existing pond which is designed to control the design storm release rates.

Consider having control joints every -10ft.



Update the drainage report to describe the 100yr conveyance. Base on the elevations the pond is designed to use the spillway to discharge the 100yr flow into existing inlet.
Considering the existing inlet grate elevation is at 6756.48 it unclear how effective the current design will function that would allow 100% capture of flow versus bypassing the existing inlet and going into Struthers Road.
Either:
a. Provide an enlarge detail of the spillway and existing inlet with sufficient spot elevations and analysis to show no by-pass occurs, or
b. adjust the spillway elevation so the entire 100yr flow drains through the outlet structure.



It is unclear without hatching or further details how far the access road extends to/from (ie: length unknown)

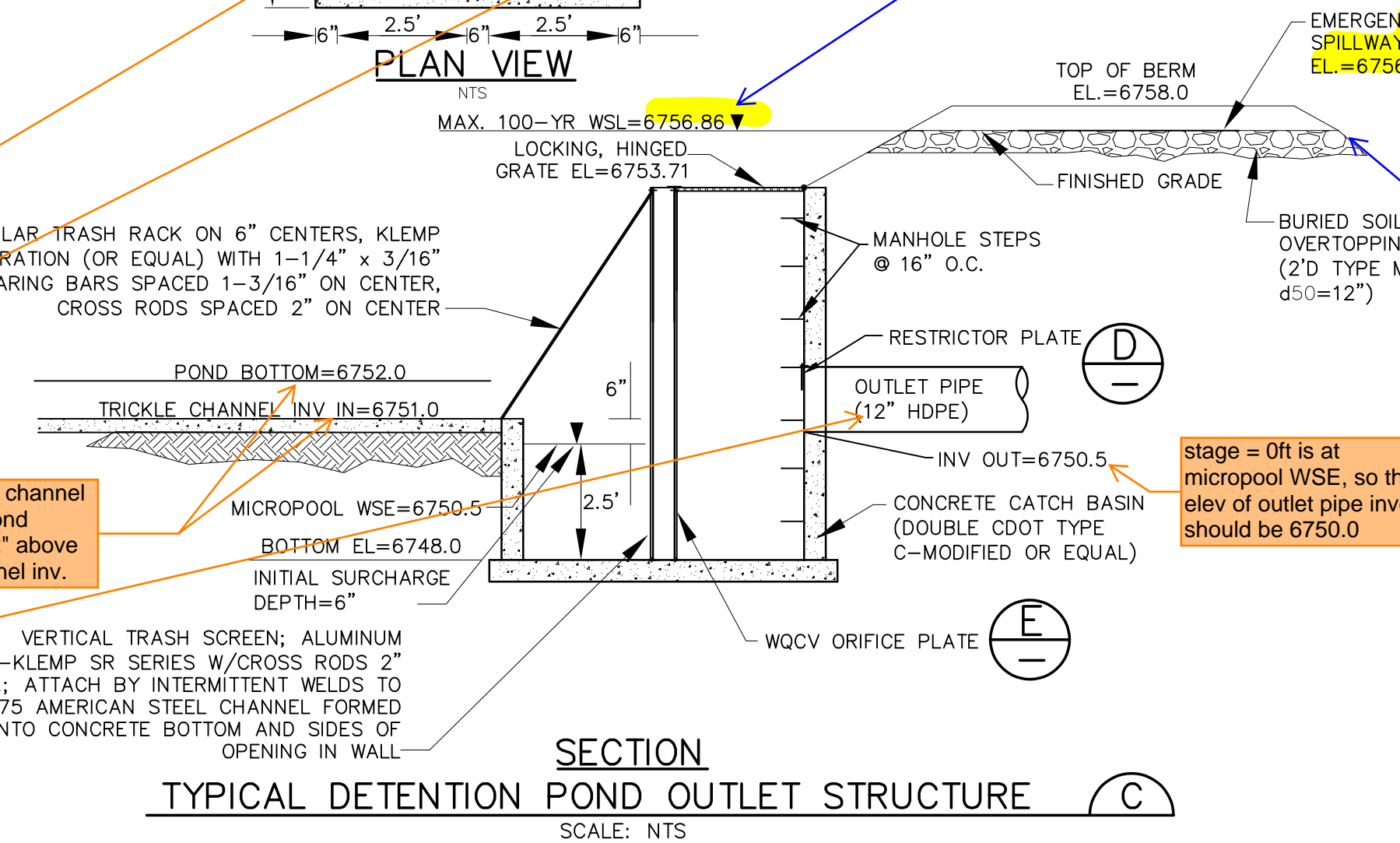
Label proposed pond frame per my comment on drainage letter pdf pg 6.

Why no trickle channel to outlet structure?
And why no forebay?

From the trickle channel detail above, pond bottom is only 2' above the trickle channel inv.

stage = 0ft is at micropool WSE, so this elev of outlet pipe invert should be 6750.0

Include the existing inlet and C&G in the section detail. Include spot elevation at the back of sidewalk and/or top back of curb.



Provide a spillway detail

12' L SPILLWAY (EL=6756.5) W/ BURIED SOIL RIPRAP

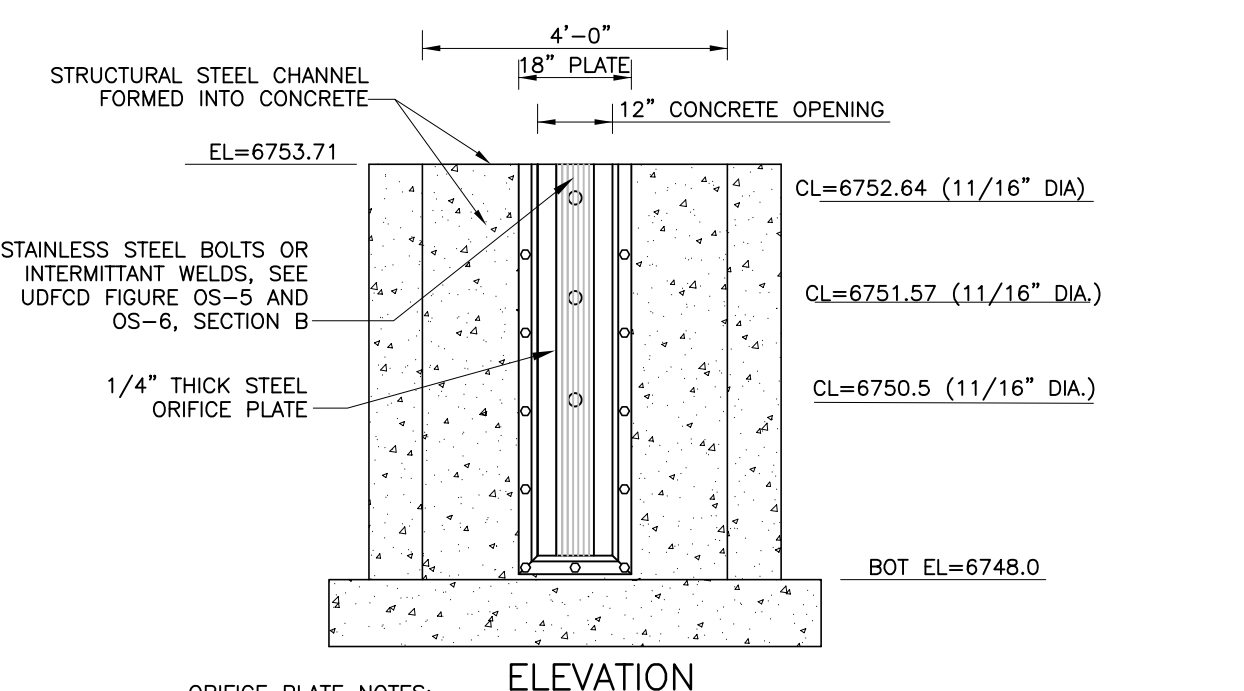
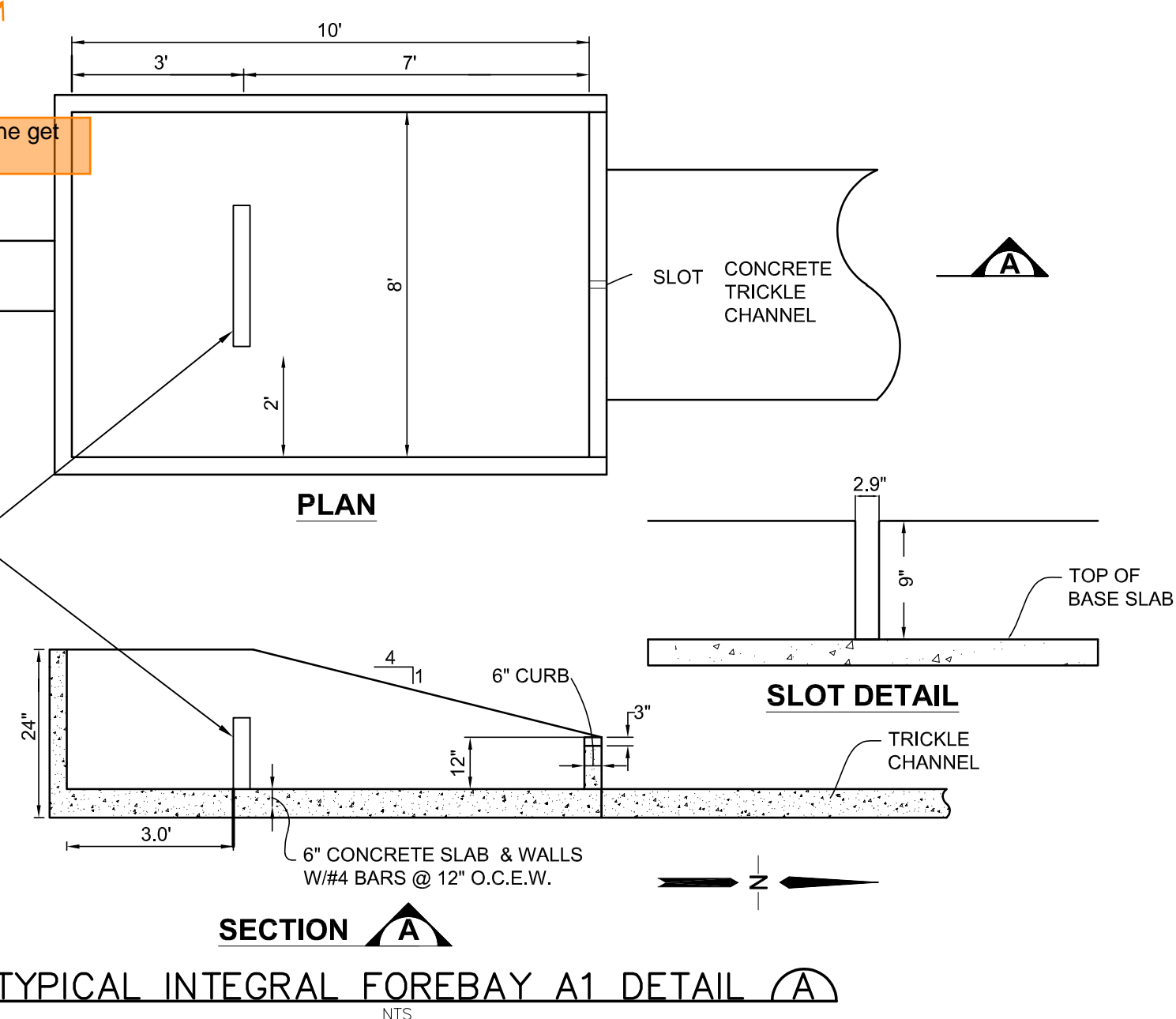
Per ECM Chap3.3.1.C - Min pipe size is 18" diameter

DETENTION BASIN (PRIVATE)

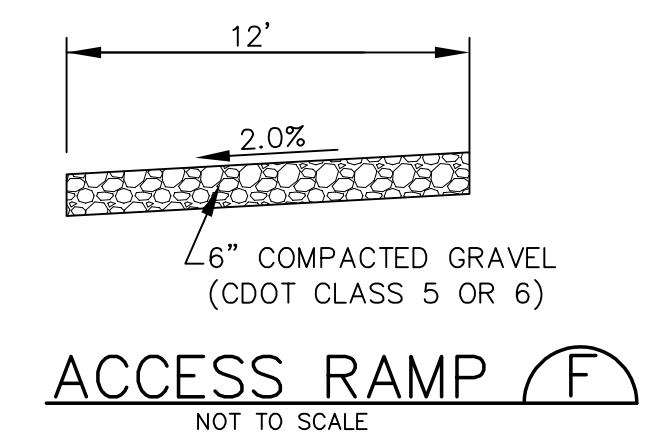
Is this labeling the existing pond? Clarify. Per previous FDR, existing pond is "Detention Basin 11"

Did this leader line get cutoff?

3'L x 2'H x 6" CONCRETE ENERGY DISSIPATOR BAFFLE W/#4 BARS @ 12" O.C.E.W.



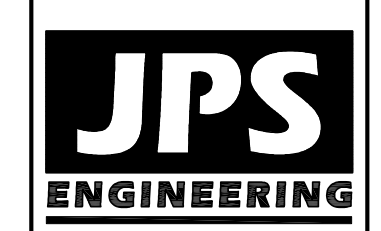
- ORIFICE PLATE NOTES:
1. MINIMIZE THE NUMBER OF COLUMNS.
2. PROVIDE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.
3. BOLT PLATE TO CONCRETE 12" MAX. ON CENTER.
EURV AND WQCV TRASH RACKS:
1. WELL-SCREEN TRASH RACKS (FOR CIRCULAR ORIFICES) SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
2. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.
OVERFLOW TRASH RACKS:
1. ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
2. TRASH RACKS SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
3. TRASH RACKS SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
4. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.



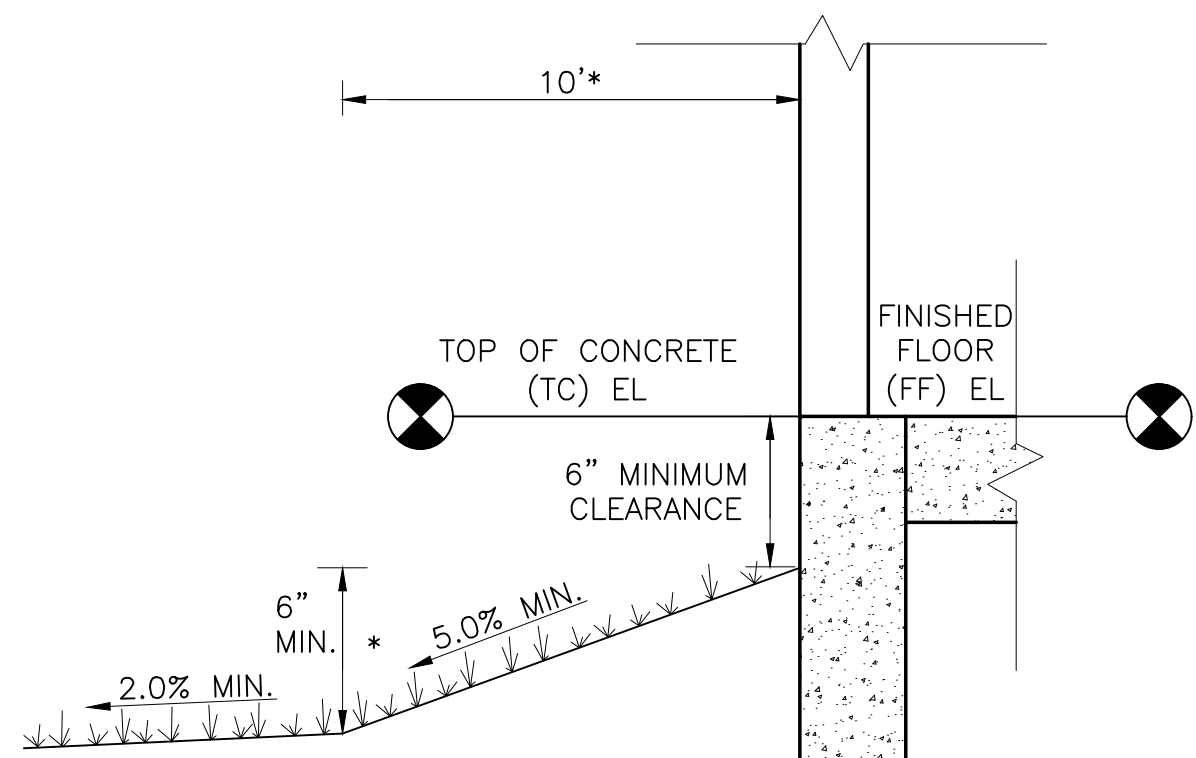
Water Quality Pond

STRUTHERS RANCH POLY
LOTS 1-2, STRUTHERS RANCH SUBDIVISION
DETENTION BASIN
PLAN DETAILS

Table with project metadata including scales, dates, and sheet number C3.1.



19 E. Willamette Ave.
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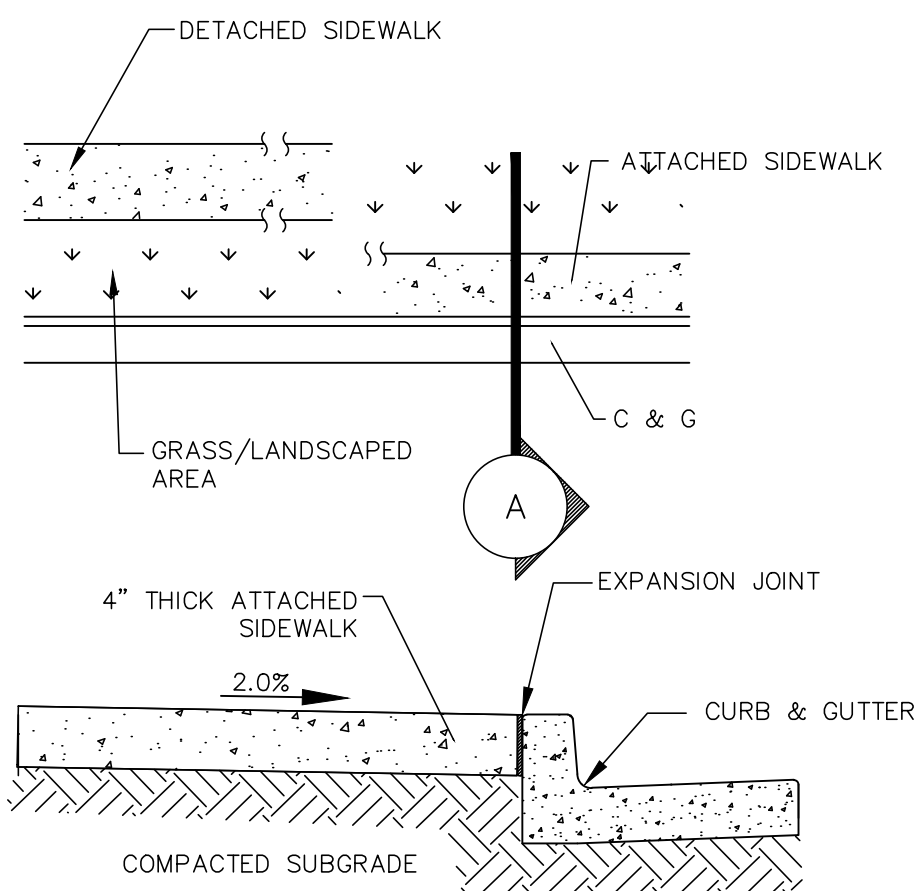


NOTES:
 WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PROHIBIT 6" OF FALL WITHIN 10', DRAINS OR SWALES SHALL BE PROVIDED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE.

MAINTAIN POSITIVE SLOPE AWAY FROM BLDG. ON ALL SIDES. MIN. SLOPE 6" IN FIRST 10' IN UNPAVED AREAS, MIN. SLOPE OF 3" IN THE FIRST 10' IN PAVED AREAS. AFTER INITIAL 10' SLOPE AWAY FROM BLDG. MIN 1%, MAX. 5% SLOPE.

TYPICAL BUILDING DRAINAGE DETAIL (D)

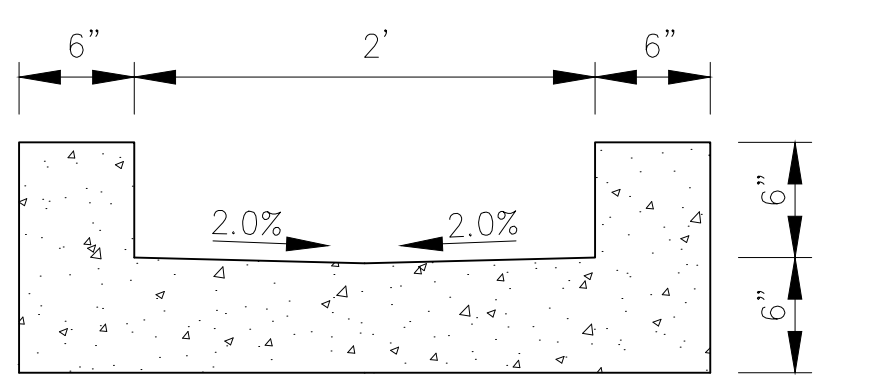
SCALE: NTS



NOTES:
 1. SEE SITE PLAN FOR LOCATION & DIMENSIONS OF SIDEWALK (5' ATTACHED SIDEWALK UNLESS NOTED OTHERWISE).
 2. CONTRACTOR SHALL PROVIDE JOINTS PER CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS.

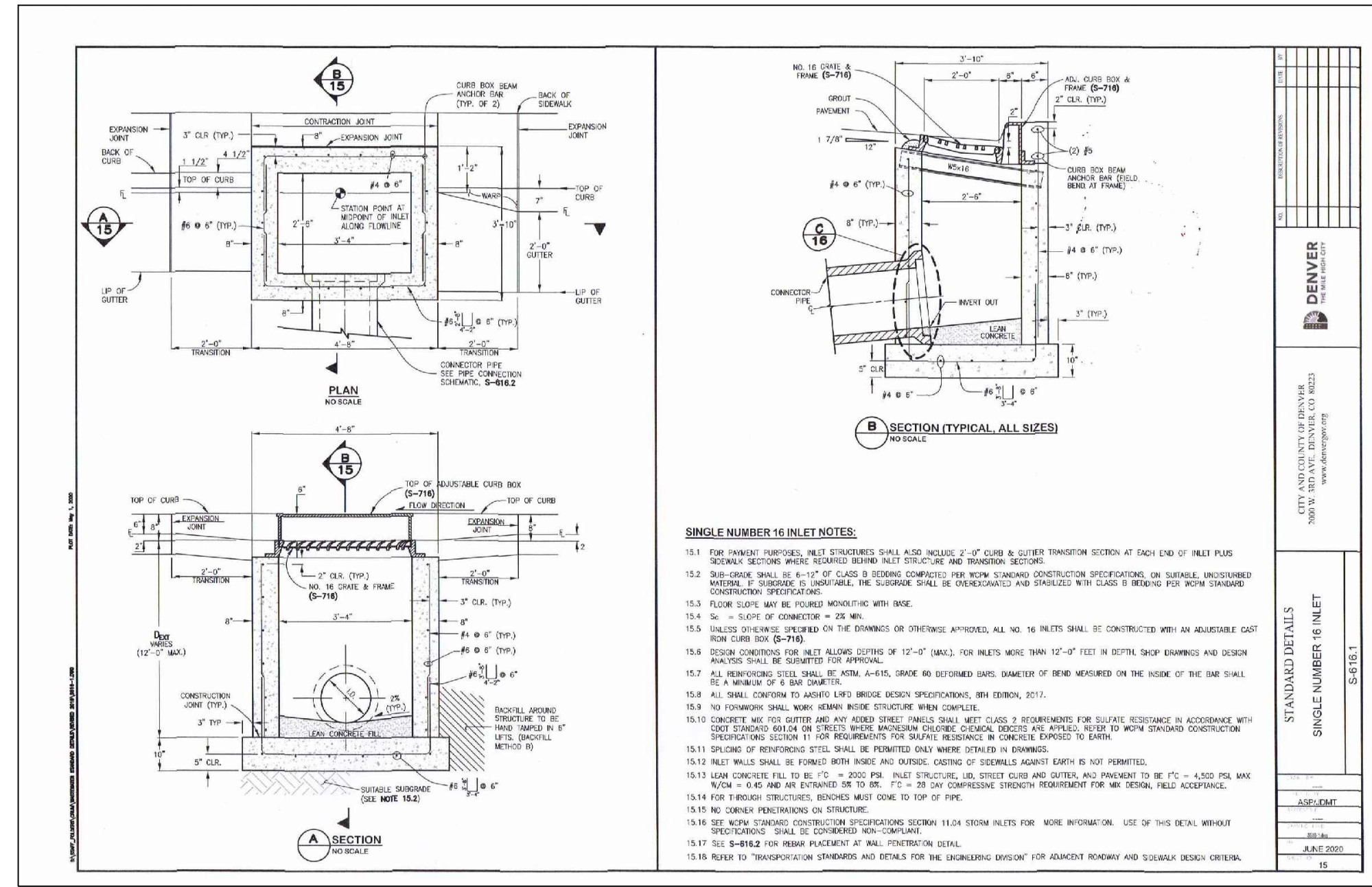
CONCRETE SIDEWALK DETAIL (B)

N.T.S.

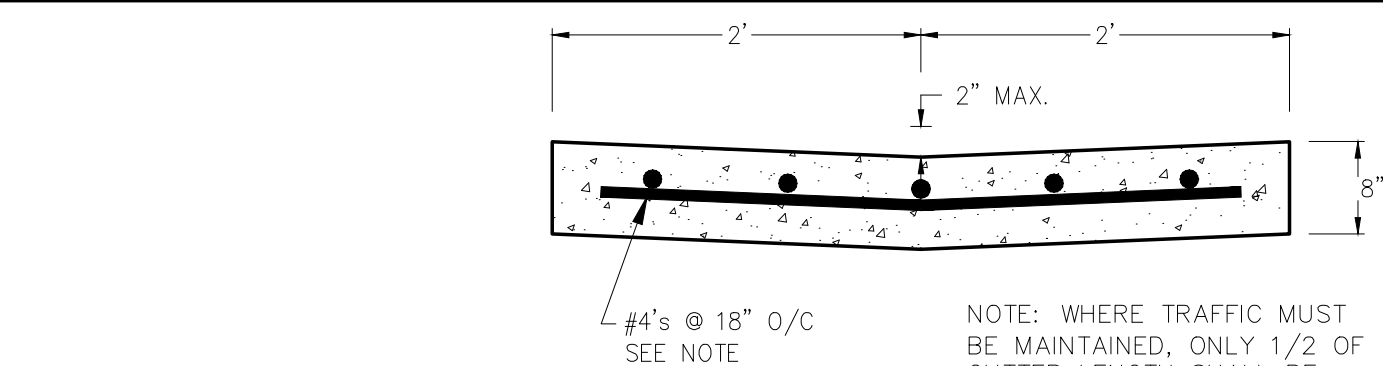


CURB CHASE SECTION (C)

SCALE: 1"=1' H&V

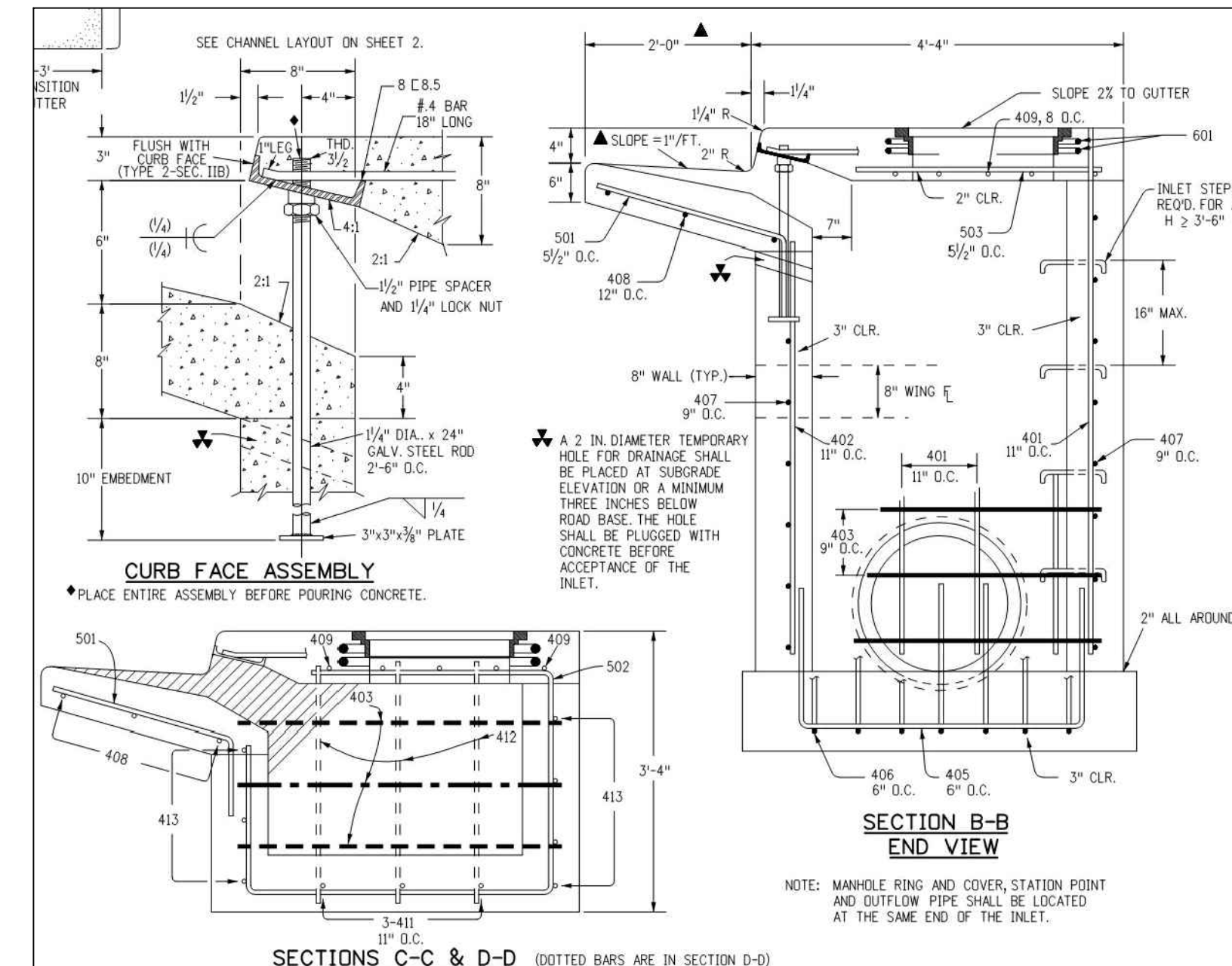


SINGLE NUMBER 16 INLET NOTES:
 16.1 FOR MAINTENANCE, ALL DIMENSIONS SHALL BE AS SHOWN. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.2 CURB FACE SHALL BE 1/2" OF CURB & GUTTER CONSTRUCTION PER CITY OF COLORADO STANDARD SPECIFICATIONS. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.3 FLOOR SLABS MAY BE REINFORCED WITH BARS.
 16.4 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.5 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.6 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.7 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.8 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.9 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.10 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.11 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.12 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.13 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.14 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.15 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.16 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.17 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.18 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.19 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
 16.20 ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.

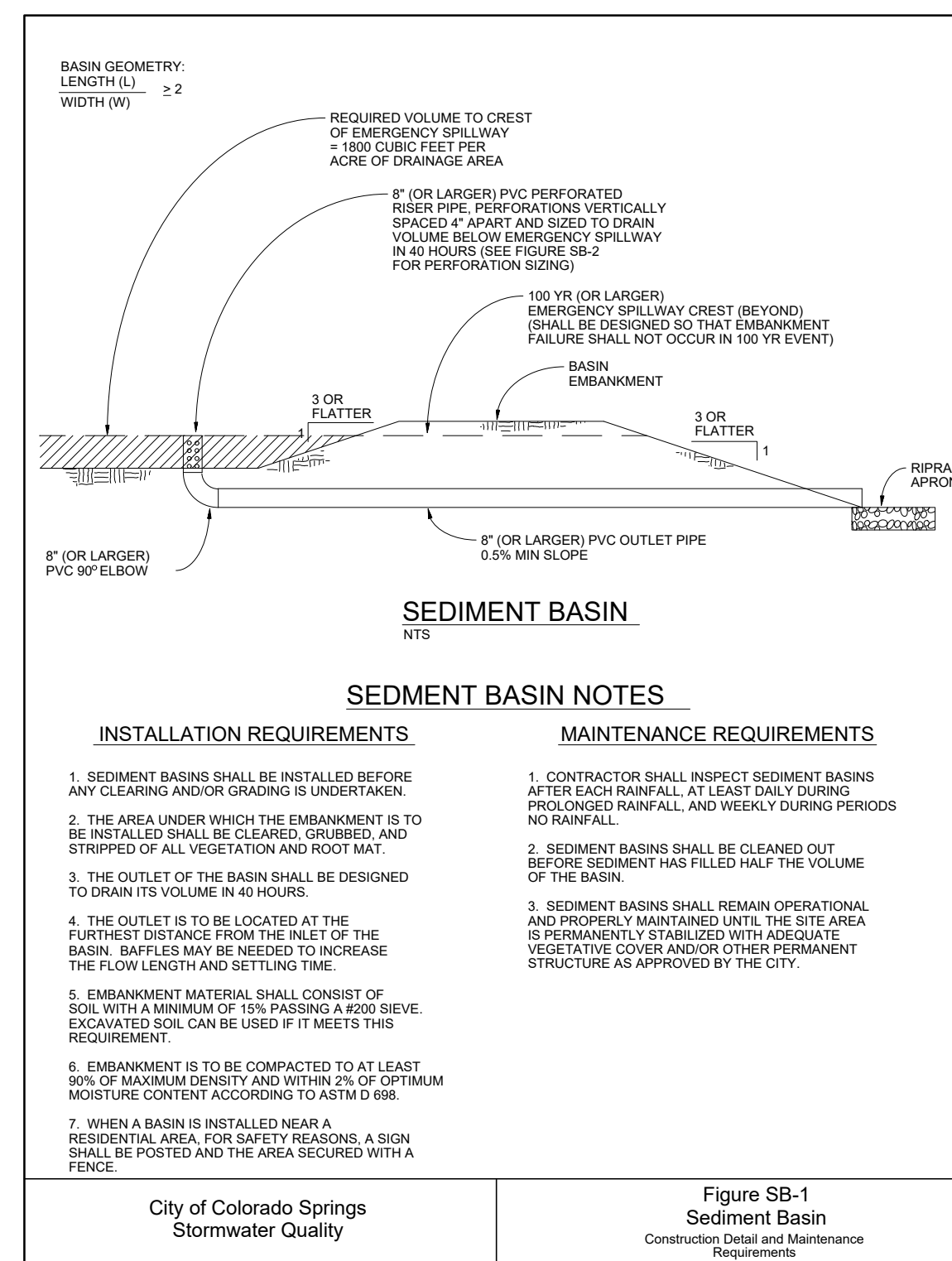


TYPICAL CONCRETE CROSSPAN (A)

SCALE: 1" = 1'-0"



CDOT INLET TYPE R DETAIL

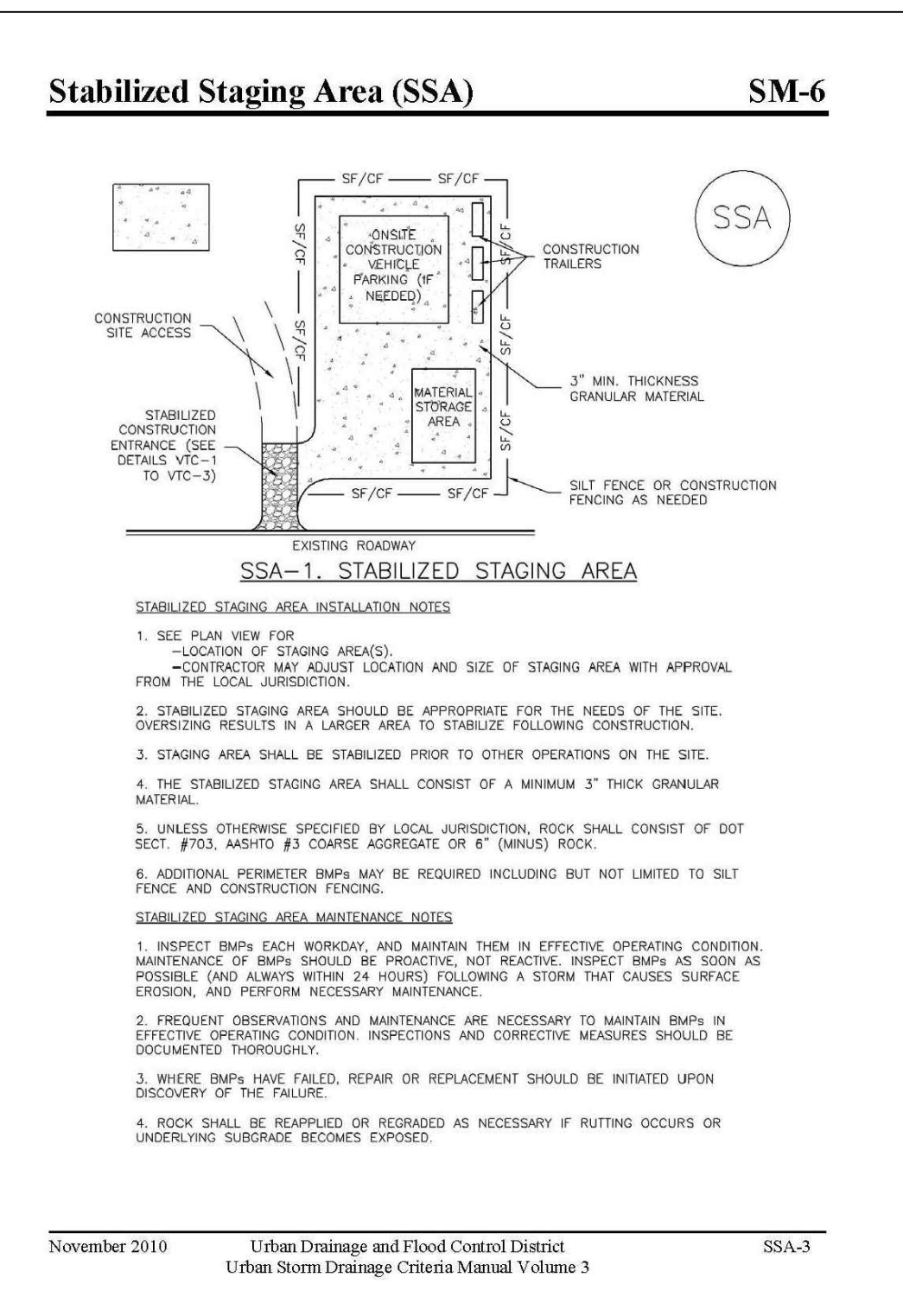


SEDIMENT BASIN NOTES

INSTALLATION REQUIREMENTS:
 1. SEDIMENT BASIN SHALL BE INSTALLED BEFORE ANY CLEANING AND/OR GRADING IS UNDERTAKEN.
 2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.
 3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.
 4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. BAFFLES MAY BE NEEDED TO INCREASE THE FLOW LENGTH AND SETTLING TIME.
 5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
 6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 998.
 7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE.

MAINTENANCE REQUIREMENTS:
 1. CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS OF NO RAINFALL.
 2. SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.
 3. SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.

Figure SB-1 Sediment Basin Construction Detail and Maintenance Requirements

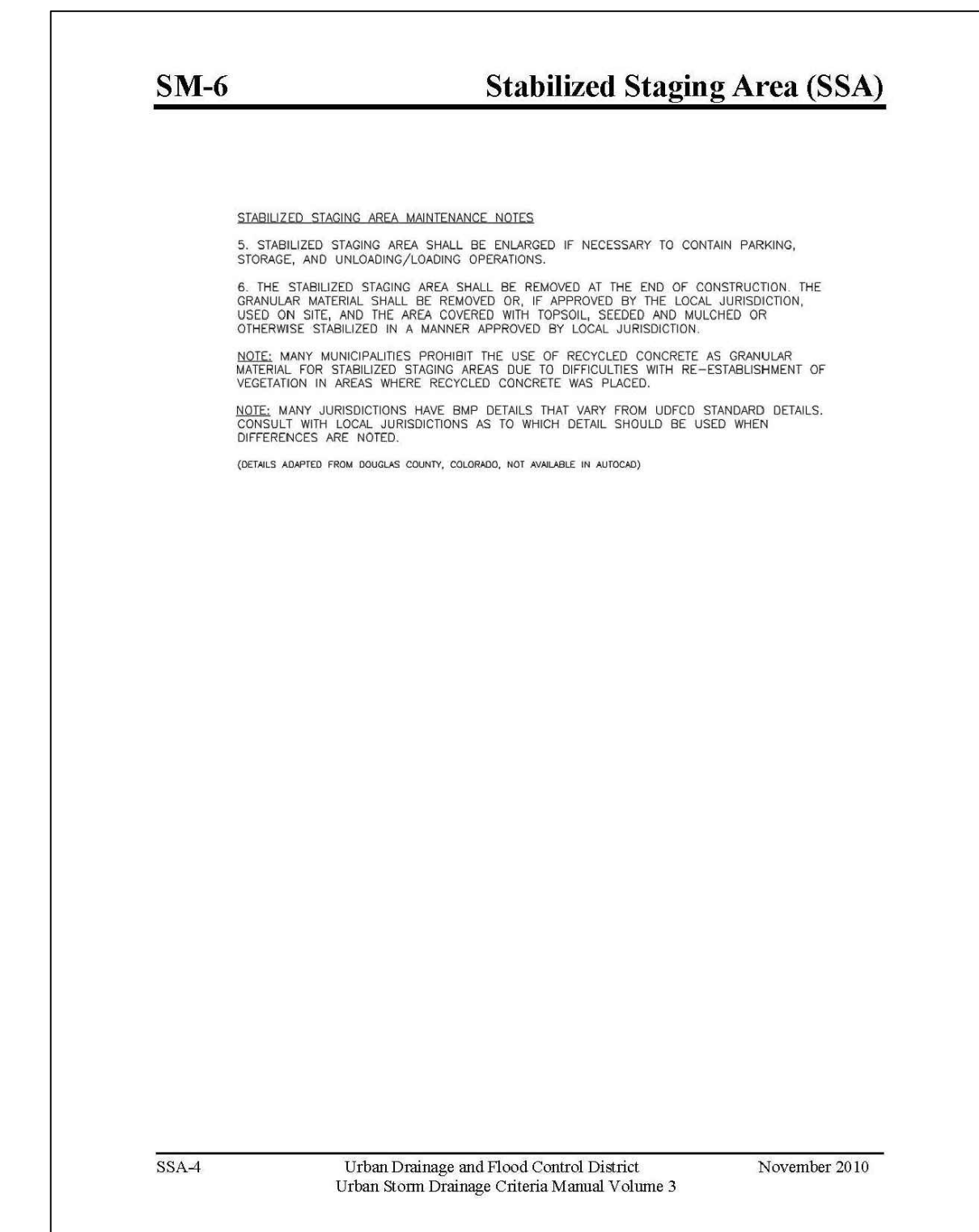


Stabilized Staging Area (SSA) SM-6

SSA-1, STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES:
 1. SEE PLAN VIEW FOR LOCATION OF STAGING AREA.
 2. CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
 3. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
 4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
 5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, MASHTO #3 COARSE AGGREGATE OR 8" (MINUS) ROCK.
 6. ADDITIONAL PERIMETER BARS MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES:
 1. INSPECT BARS EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BARS SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BARS AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OPERATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BARS IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BARS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. ROCK SHALL BE REPLACED OR REDIGGED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

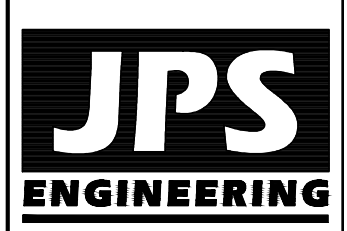


Stabilized Staging Area (SSA) SM-6

STABILIZED STAGING AREA MAINTENANCE NOTES

STABILIZED STAGING AREA MAINTENANCE NOTES:
 5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
 6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEED, AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
 NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREA DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
 NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM LOCAL STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
 (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN ADOBE)

STRUTHERS RANCH POLARIS
LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4



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 Colorado Springs, CO
 80903
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NO.	REVISION	BY	DATE

CIVIL & EROSION CONTROL DETAILS

HORIZ. SCALE: N/A	DRAWN: PV
VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: COMPASS	CHECKED: JPS
CREATED: 05/27/20	LAST MODIFIED: 08/09/22
PROJECT NO: 032203	MODIFIED BY: PV
SHEET:	

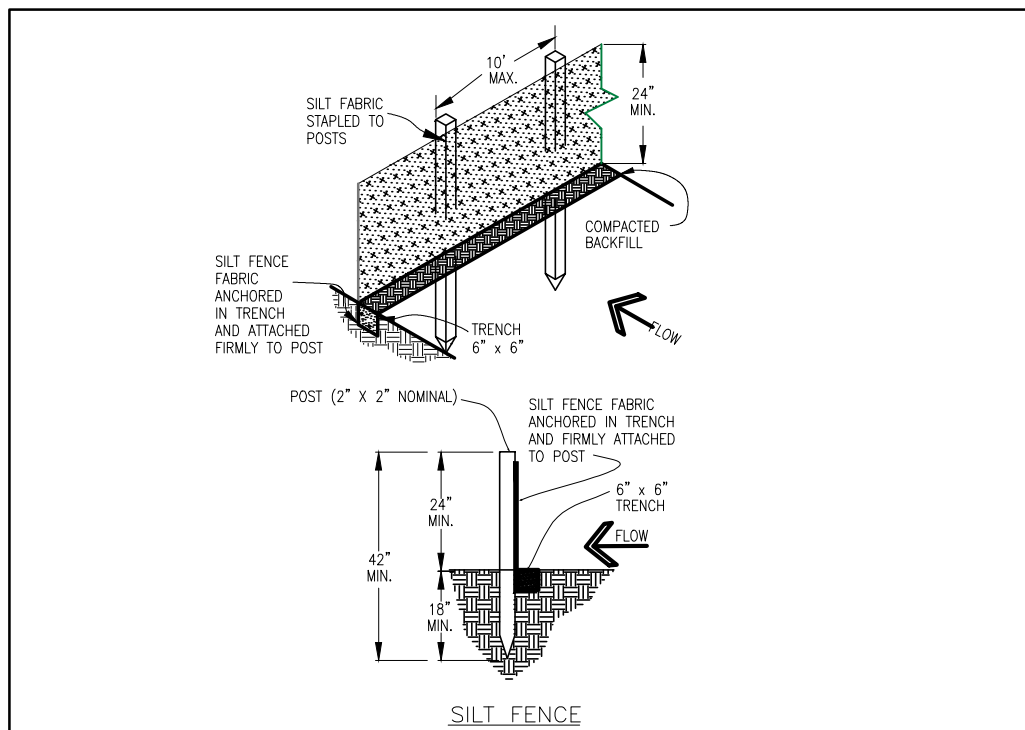
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PCD PROJECT NO. xx

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS:

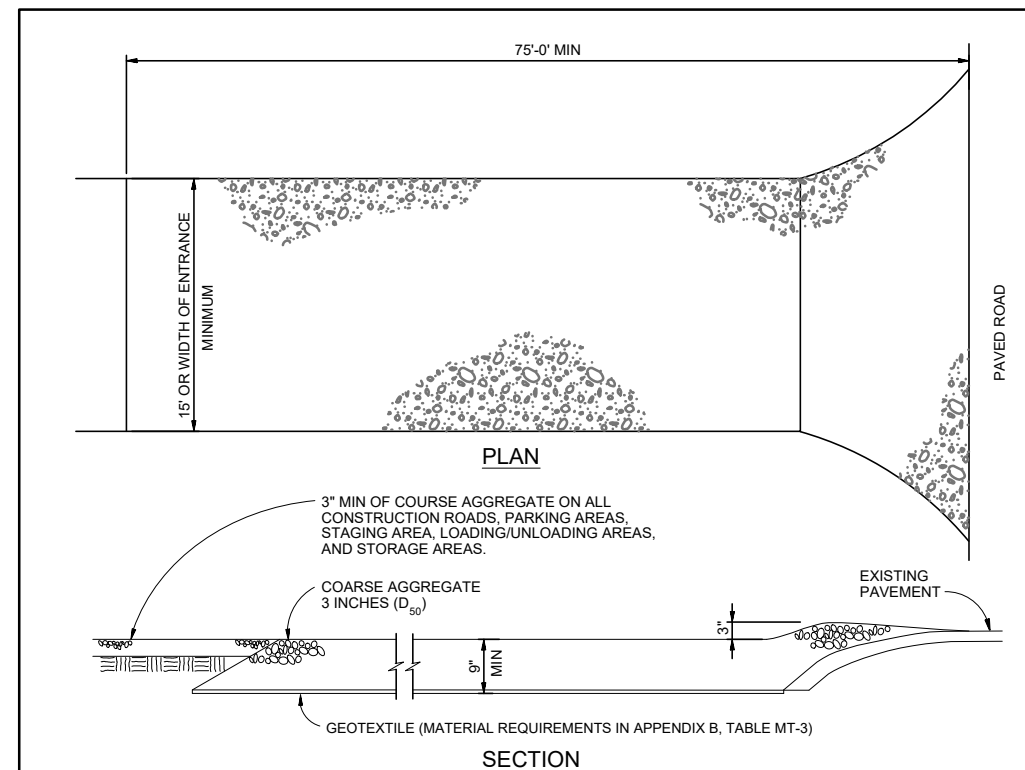
REVISED 7/02/19

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344). IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I, ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CTL THOMPSON, DATED JULY 13, 2006 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
 COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
 WATER QUALITY CONTROL DIVISION
 WOOD PERMITS
 4300 CHERRY CREEK DRIVE SOUTH
 DENVER, CO 80246-1530
 ATTN: PERMITS UNIT



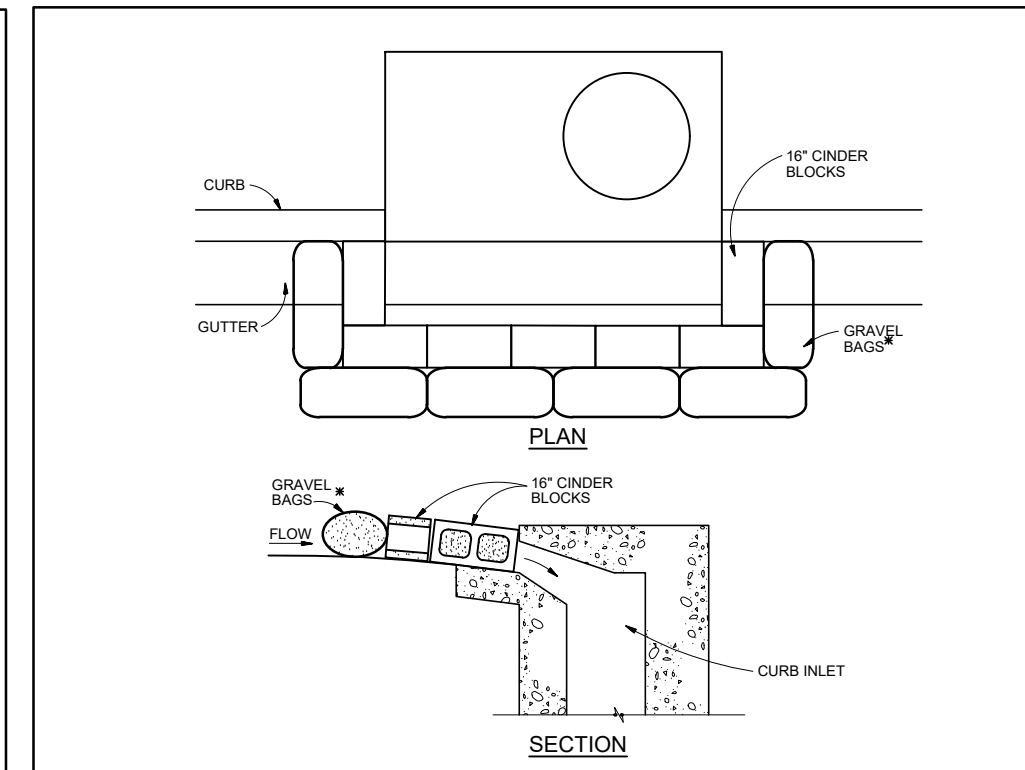
SILT FENCE NOTES
INSTALLATION REQUIREMENTS
 1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POSTS AND SECURELY SEALED.
 3. METAL POSTS SHALL BE "STUDDER" TYPE OR "J" TYPE WITH MINIMUM HEIGHT OF 1.33 FEET PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
 4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG #9 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.
 5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPDRAVE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3" ABOVE THE ORIGINAL GROUND SURFACE.
 6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEEDING TO RETRY. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.
 7. THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES. HIGHER FENCES MAY IMPROVE VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.
MAINTENANCE REQUIREMENTS
 1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNANCHORED, OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
 2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
 3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATION COVER IS ATTAINED AS APPROVED BY THE CITY.

City of Colorado Springs Stormwater Quality Figure SF-2 Silt Fence Construction Detail and Maintenance Requirements 358



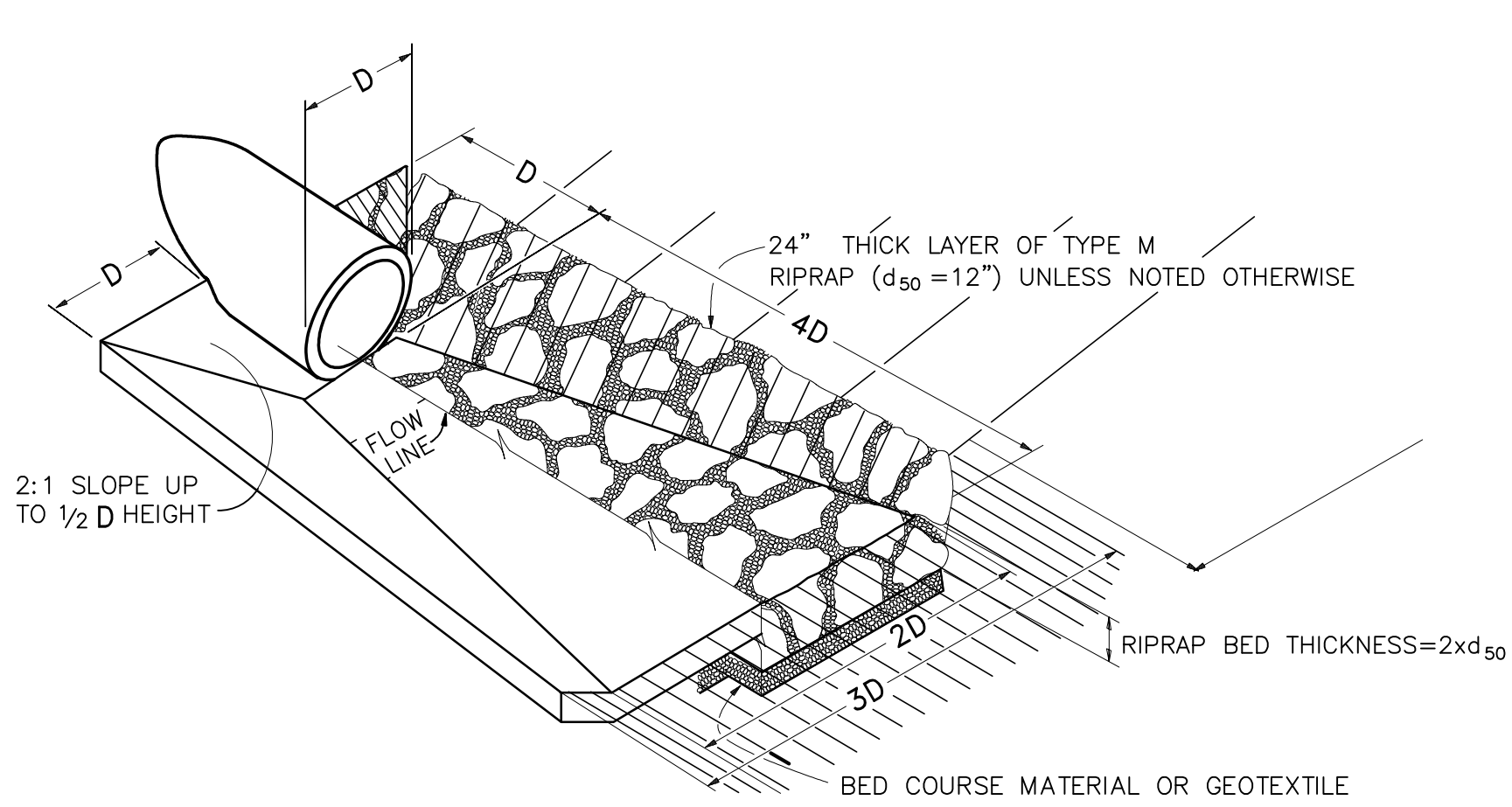
VEHICLE TRACKING NOTES
INSTALLATION REQUIREMENTS
 1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
 2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR EDGING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLOTTED OVERLAY.
 3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
 4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
 5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO STATE ROAD GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.
MAINTENANCE REQUIREMENTS
 1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
 2. STONES ARE TO BE REPLACED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
 3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SWEEPING OR COUNTERING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
 4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
 5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs Stormwater Quality Figure VT-2 Vehicle Tracking Application Examples 364

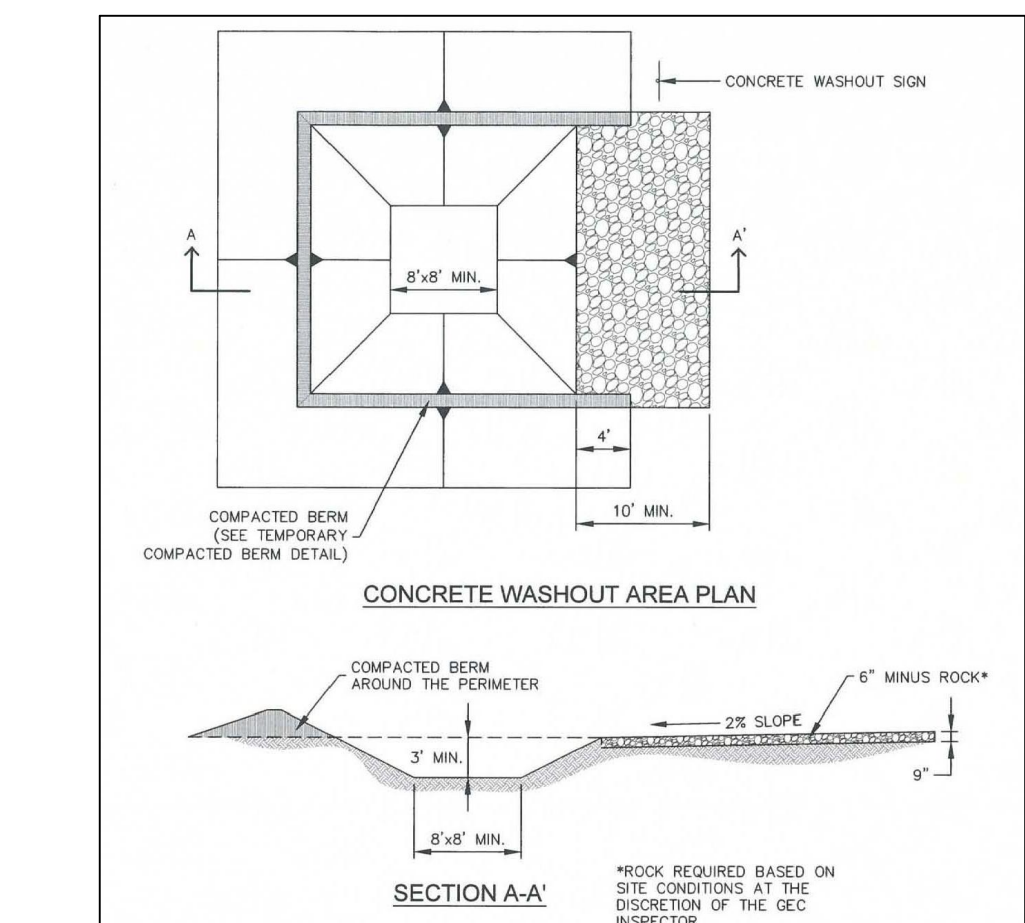


BLOCK AND GRAVEL BAG CURB INLET PROTECTION NOTES
INSTALLATION REQUIREMENTS
 1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
 2. CONCRETE BLOCKS ARE TO BE LAID AROUND THE INLET IN A SINGLE ROW OR THREE ROWS, ADJUTING ONE ANOTHER WITH THE OPEN ENDS OF THE BLOCK FACING OUTWARD.
 3. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS CLOSELY ADJUTING ONE ANOTHER WHERE THERE ARE NO GAPS.
 4. GRAVEL BAGS ARE TO CONTAIN WASH SAND OR GRAVEL APPROXIMATELY 16 INCH DIAMETER.
 5. BAGS ARE TO BE MADE OF 1/4\"/>

City of Colorado Springs Stormwater Quality Figure IP-3 Block & Gravel Bag Curb Inlet Protection Construction Detail and Maintenance Requirements 377



TYPICAL RIPRAP APRON/CULVERT OUTLET PAVING NOT TO SCALE



CONCRETE WASHOUT AREA PLAN
INSTALLATION NOTES
 1. SEE PLAN VIEW FOR LOCATION OF CONCRETE WASHOUT AREA.
 2. LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
 3. AN IMPERMEABLE LINER (16 MIL MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE BARRIERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
 4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
 5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT.
 6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8\"/>

ESTIMATED TIME SCHEDULE:
 INSTALL BMP'S FEBRUARY, 2023
 GRADING START FEBRUARY, 2023
 GRADING COMPLETION SEPTEMBER, 2023
 SEEDING & MULCHING SEPTEMBER, 2023
 STABILIZATION SEPTEMBER, 2024

SEDIMENT CONTROL MAINTENANCE PROGRAM:
 PERIODIC SITE INSPECTIONS BI-WEEKLY
 RE-VEGETATION OF EXPOSED SOILS WITHIN 21 DAYS OF GRADING
 SEDIMENT REMOVAL FROM BMP'S MONTHLY
 REMOVAL OF BMP'S AFTER STABILIZATION ACHIEVED

SEEDING MIX:

GRASS	VARIETY	AMOUNT IN PLS LBS. PER ACRE
CRESTED WHEAT GRASS	EPHRAIM OR HYCREST	4.0 LBS.
PERENNIAL RYE	LINN	2.0 LBS.
WESTERN WHEATGRASS	SARTON	3.0 LBS.
SMOOTH BROME GRASS	LINCOLN OR MANCHAR	5.0 LBS.
SIDE-OATS GRAMA	EPHRAIM	2.5 LBS.
TOTAL:		16.5 LBS.

SEEDING & FERTILIZER APPLICATION: DRILL SEED OR HYDRO-SEED PER CDOT SPEC. SECTION 212.

MULCHING APPLICATION: CONFORM TO CDOT SPEC-SECTION 213.

STRUTHERS RANCH POLARIS

LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4

EROSION CONTROL NOTES AND DETAILS

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1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES.

NO.	REVISION	BY	DATE

HORIZ. SCALE: NTS DRAWN: PV
 VERT. SCALE: N/A DESIGNED: JPS
 SURVEYED: COMPASS CHECKED: JPS
 CREATED: 05/27/20 LAST MODIFIED: 08/09/22
 PROJECT NO: 032203 MODIFIED BY: PV
 SHEET: C4.2

9/12/2022 1:34:30 PM (1)



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Page Label: 4
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 1:34:30 PM
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Why no trickle channel to outlet structure?
And why no forebay?

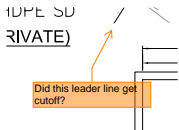
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Date: 9/12/2022 1:36:43 PM
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It is unclear without hatching or further details how far the access road extends to/from (ie: length unknown)

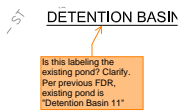
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Did this leader line get cutoff?

9/12/2022 1:49:03 PM (1)



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Is this labeling the existing pond? Clarify. Per previous FDR, existing pond is "Detention Basin 11"

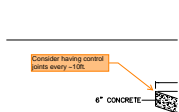
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Label proposed pond name per my comment on drainage letter pdf pg 6.

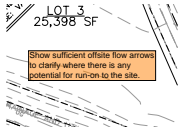
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Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 1:58:53 PM
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Consider having control joints every ~10ft.

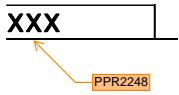
9/12/2022 12:32:02 PM (1)



Subject: SW - Textbox
Page Label: 3
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 12:32:02 PM
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Space:

Show sufficient offsite flow arrows to clarify where there is any potential for run-on to the site.

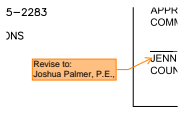
9/12/2022 12:34:29 PM (1)



Subject: SW - Textbox with Arrow
Page Label: 1
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 12:34:29 PM
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Color: ■
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Space:

PPR2248

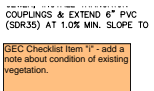
9/12/2022 12:34:43 PM (1)



Subject: SW - Textbox with Arrow
Page Label: 1
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 12:34:43 PM
Status:
Color: ■
Layer:
Space:

Revise to:
Joshua Palmer, P.E.,

9/12/2022 2:03:44 PM (1)



Subject: SW - Textbox
Page Label: 3
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 2:03:44 PM
Status:
Color: ■
Layer:
Space:

GEC Checklist Item "i" - add a note about condition of existing vegetation.

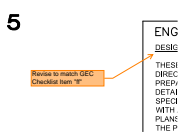
9/12/2022 2:04:49 PM (1)



Subject: SW - Textbox with Arrow
Page Label: 3
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 2:04:49 PM
Status:
Color: ■
Layer:
Space:

Regional Building Department permit required for all retaining walls greater than or equal to 4 ft in height.

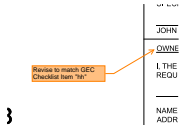
9/12/2022 2:21:06 PM (1)



Subject: SW - Textbox with Arrow
Page Label: 1
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 2:21:06 PM
Status:
Color: ■
Layer:
Space:

Revise to match GEC Checklist Item "ff"

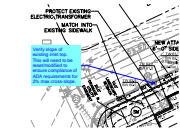
9/12/2022 2:21:18 PM (1)



Subject: SW - Textbox with Arrow
Page Label: 1
Author: Glenn Reese - EPC Stormwater
Date: 9/12/2022 2:21:18 PM
Status:
Color: ■
Layer:
Space:

Revise to match GEC Checklist Item "hh"

9/14/2022 2:23:13 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 9/14/2022 2:23:13 PM
Status:
Color: ■
Layer:
Space:

Verify slope of existing inlet top. This will need to be reset/modified to ensure compliance of ADA requirements for 2% max cross-slope.

9/14/2022 2:40:05 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 9/14/2022 2:40:05 PM
Status:
Color: ■
Layer:
Space:

Existing ramps shall be removed.

9/14/2022 2:43:17 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 9/14/2022 2:43:17 PM
Status:
Color: ■
Layer:
Space:

update label to identify the width of existing sidewalk.
If existing is 6' wide then a transition taper may be required to go down to 5' wide proposed sidewalk.

9/14/2022 2:45:50 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 9/14/2022 2:45:50 PM
Status:
Color: ■
Layer:
Space:

verify and update label to identify the width of existing sidewalk. The Struthers Ranch Fil 2 construction drawings shows 5' sidewalk for the local road.

Revise the proposed sidewalk width to 5'

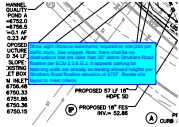
9/14/2022 2:45:59 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 9/14/2022 2:45:59 PM
Status:
Color: ■
Layer:
Space:

include or reference the County ramp details.

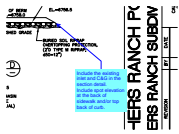
9/15/2022 10:03:21 AM (1)



Subject: Text Box
Page Label: 3
Author: lpackman
Date: 9/15/2022 10:03:21 AM
Status:
Color: ■
Layer:
Space:

Show sight distance easements required on site plan per traffic study. See snippet. Note: there shall be no obstructions that are taller than 30" above Struthers Road flowline per ECM 2.3.6.G.2. It appears parking lot retaining walls are already exceeding allowed heights per Struthers Road flowline elevation of 6757'. Revise site layout to meet criteria.

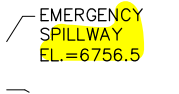
9/15/2022 2:33:48 PM (1)



Subject: Callout
Page Label: 4
Author: dsdlaforce
Date: 9/15/2022 2:33:48 PM
Status:
Color: ■
Layer:
Space:

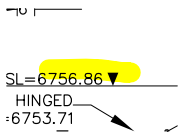
Include the existing inlet and C&G in the section detail. Include spot elevation at the back of sidewalk and/or top back of curb.

9/15/2022 7:18:49 AM (1)



Subject: Highlight
Page Label: 4
Author: dsdlaforce
Date: 9/15/2022 7:18:49 AM
Status:
Color: ■
Layer:
Space:

9/15/2022 7:18:50 AM (1)



Subject: Highlight
Page Label: 4
Author: dsdlaforce
Date: 9/15/2022 7:18:50 AM
Status:
Color: ■
Layer:
Space:

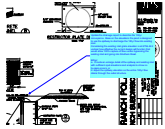
9/15/2022 7:22:25 AM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 9/15/2022 7:22:25 AM
Status:
Color: ■
Layer:
Space:

revise to 5' sidewalk.

9/15/2022 7:29:41 AM (1)



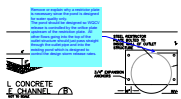
Subject: Callout
Page Label: 4
Author: dsdlaforce
Date: 9/15/2022 7:29:41 AM
Status:
Color: ■
Layer:
Space:

Update the drainage report to describe the 100yr conveyance. Base on the elevations the pond is designed to use the spillway to discharge the 100yr flow into existing inlet. Considering the existing inlet grate elevation is at 6756.48 it unclear how effective the current design will function that would allow 100% capture of flow versus bypassing the existing inlet and going into Struthers Road.

Either:

- a. Provide an enlarge detail of the spillway and existing inlet with sufficient spot elevations and analysis to show no by-pass occurs, or
- b. adjust the spillway elevation so the entire 100yr flow drains through the outlet structure.

9/15/2022 7:57:15 AM (1)



Subject: Callout
Page Label: 4
Author: dsdlaforce
Date: 9/15/2022 7:57:15 AM
Status:
Color: ■
Layer:
Space:

Remove or explain why a restrictor plate is necessary since the pond is designed for water quality only.

The pond should be designed so WQCV release is controlled by the orifice plate upstream of the restriction plate. All other flows going into the top of the outlet structure should just pass straight through the outlet pipe and into the existing pond which is designed to control the design storm release rates.

9/15/2022 9:58:15 AM (1)



Subject: Image
Page Label: 3
Author: lpackman
Date: 9/15/2022 9:58:15 AM
Status:
Color: ■
Layer:
Space: