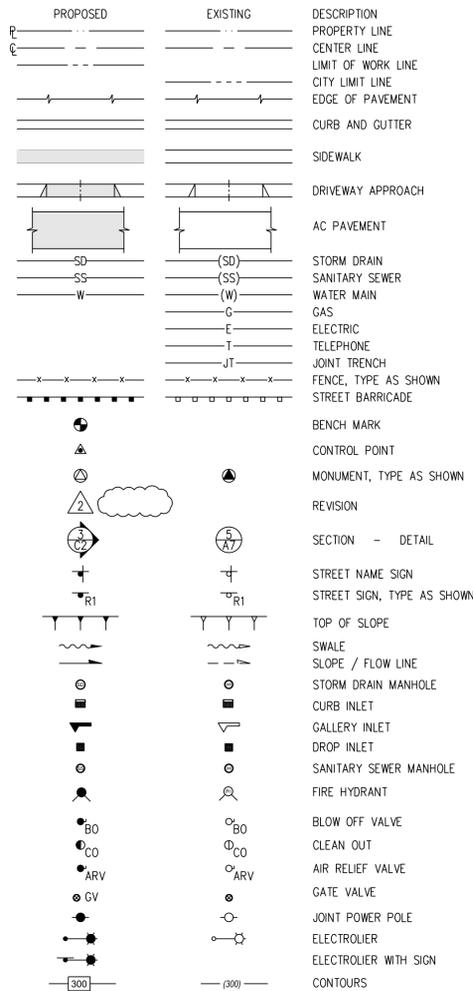




LEGEND



ABBREVIATIONS

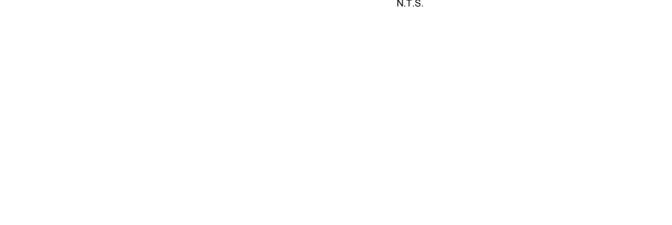
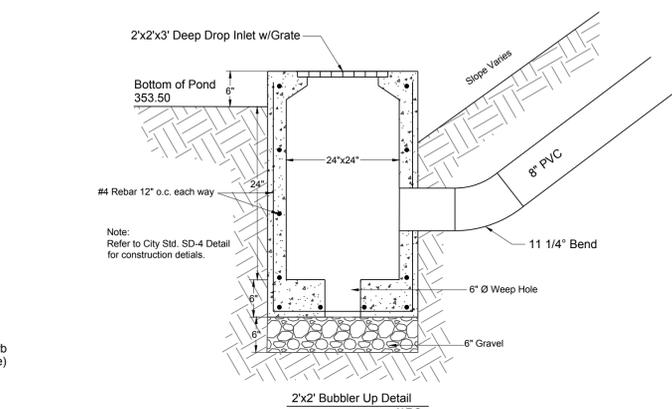
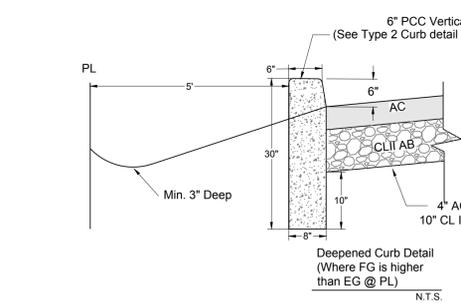
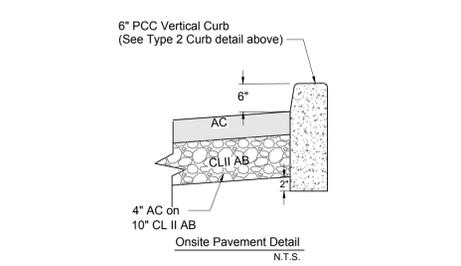
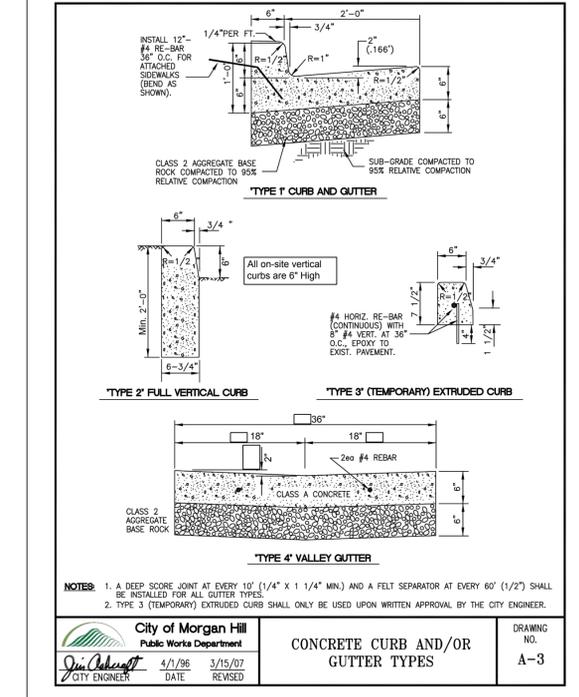
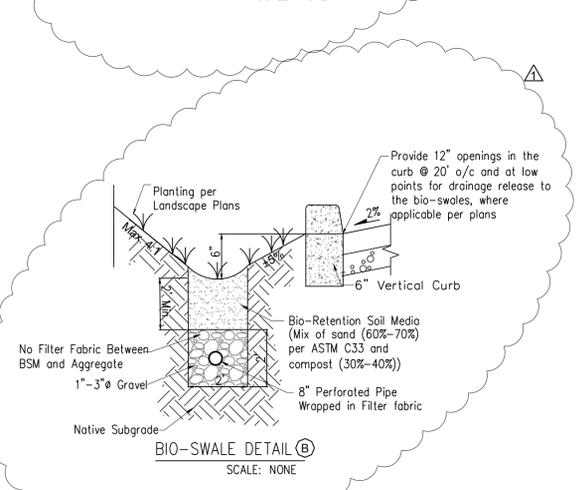
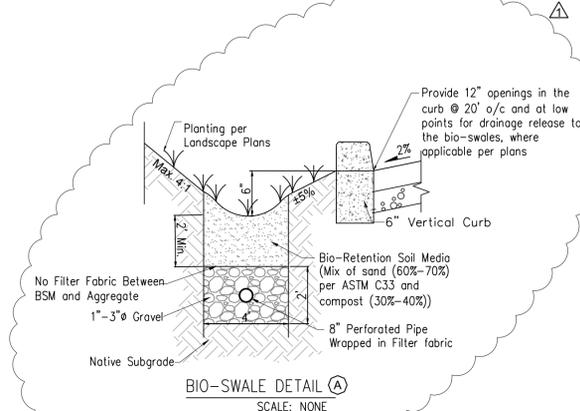
AC	ASPHALT CONCRETE
AD	ANGLE DIFFERENCE
ARV	AIR RELIEF VALVE
BF	BLIND FLANGE
BLOG	BUILDING
BO	BLOW OFF VALVE
BW	BACK OF SIDEWALK
BWF	BARB WIRE FENCE
C D/W	CONCRETE DRIVEWAY
C SH	CORNER SHED
CB	CATCH BASIN
CBDG	CORNER BUILDING
CI	CURB INLET
CL	CENTERLINE
CL D/W	CENTERLINE OF DRIVEWAY
CLSW	CENTERLINE OF SWALE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
D D/W	DIRT DRIVEWAY
DDCA	DOUBLE DETECTOR CHECK VALVE ASSEMBLY
DI	DROP INLET
DW	DOMESTIC WATER
ELCT	ELECTROLIER
EP	EDGE OF PAVEMENT
FDC	FIRE DEPARTMENT CONNECTION
FG	FINISH GRADE
F HYD	FIRE HYDRANT
FL	FLOW LINE
FS	FIRE SERVICE
GASM	GAS METER
GB	GRADE BREAK
GUY	GUY WIRE FOR POLE
GV	GATE VALVE
HP	HIGH POINT
IP	IRON PIPE
JP	JOINT POLE
K	DISTANCE REQ'D FOR 1% SLOPE CHANGE
LP	LOW POINT
NG	NATURAL GROUND
N.I.C.	NOT IN CONTRACT
PB	PULL BOX
PL	PROPERTY LINE
RCP	REINFORCED CONCRETE PIPE
RPPB	REDUCED PRESSURE BACKFLOW PREVENTOR
RWF	REDWOOD FENCE
SB	SIGNAL BOX
SDMH	STORM DRAIN MANHOLE
SLB	SLAB CONCRETE
SNS	STREET NAME SIGN
SPOLE	SERVICE POLE
SSMH	SANITARY SEWER MANHOLE
SW	SIDEWALK
TB	THRUST BLOCK
TBM	TEMPORARY BENCH MARK TO BE REMOVED
TBR	TOP OF CURB
TC	TOP OF BANK
TOB	TOP OF SLOPE
TOE	TOE OF SLOPE
WM	WATER METER
WRF	WOOD RAIL FENCE
WV	WATER VALVE

GRADING QUANTITIES

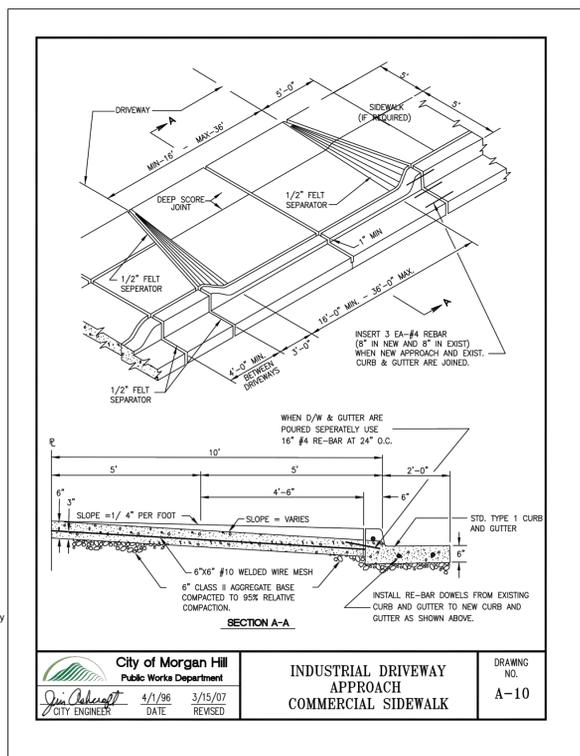
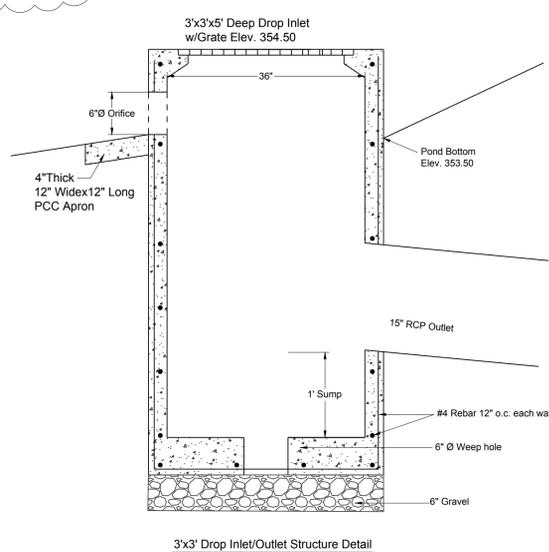
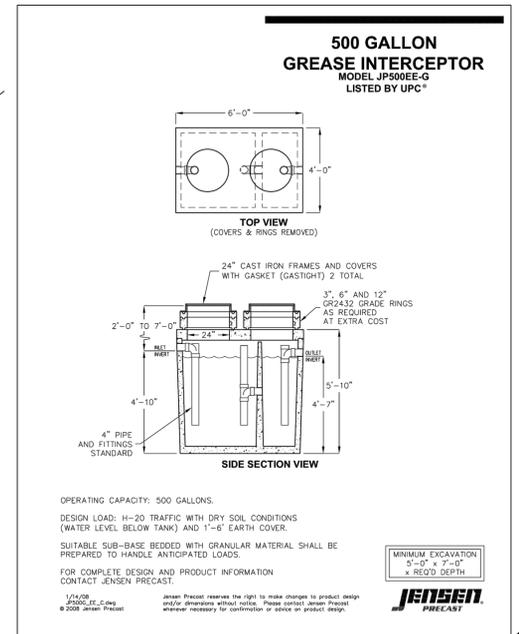
SITE EARTHWORK SUMMARY			
ITEM DESCRIPTION	CUT (C.Y.)	FILL (C.Y.)	NET (C.Y.)
ROUGH GRADING	1,798	2,886	1,088 (F)
BIO-SWALE + TRENCHES	240	---	240 (C)
15% SHRINKAGE	---	456	456 (F)
FOOTING EXCAVATION	1,000 (C)	---	1,000 (C)
EXCESS GRADING/ STREETS	---	304 (F)	304 (F)
BALANCE			

GRADING AND SITE PREPARATION NOTES

- ALL AREAS TO RECEIVE FILL SHALL BE STRIPPED TO A DEPTH TO BE DETERMINED BY THE SOILS ENGINEER. ANY A.C. OR P.C.C. PAVING SHALL BE SCARIFIED & REMOVED & SUBGRADE PREPARED & COMPACTED PER SOIL ENGINEER'S RECOMMENDATIONS PRIOR TO ANY FILLING.
- ALL MATERIAL TO BE USED AS FILL WITHIN BUILDING PAD AREAS & PARKING OR DRIVEWAY AREAS TO BE FREE OF ALL VEGETATION & FOREIGN MATTER AND SHALL BE APPROVED BY SOILS ENGINEER.
- ON-SITE SOILS USED AS ENGINEERED FILL SOILS SHOULD BE MOISTURE CONDITIONED TO SLIGHTLY ABOVE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO AT LEAST 92 PERCENT RELATIVE COMPACTION. SUBGRADE SOILS WITHIN DRIVEWAY AND STREET TO BE COMPACTED TO 95% RELATIVE COMPACTION AS PER ASTM D1557
- STRIPPING MAY BE PLACED IN PLANTING AREA OR BURIED IN DESIGNATED PARK AREAS; ALL EXCESS STRIPPING SHALL BE HAULED AWAY. PAVING DEBRIS SHALL BE HAULED AWAY TO AN APPROVED DISPOSAL SITE.
- ALL WORK SHOWN OR NOTED ON THESE PLANS SHALL BE DONE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS ENGINEER, ALL LOCAL, STATE, AND FEDERAL MINIMUM STANDARDS AND THE LATEST EDITION OF THE UNIFORM BUILDING CODE. NOTIFY SOILS ENGINEER 2 WORKING DAYS PRIOR TO BEGINNING OF ANY GRADING. THE SOILS ENGINEER IS EARTH SYSTEM PACIFIC. FILE NO.:303526-001, DATED DECEMBER 31, 2019
- CONNECTIONS TO EXISTING PUBLIC UTILITIES SHALL BE DONE WITH APPROVAL & IN ACCORDANCE WITH THE UTILITY COMPANY'S REQUIREMENTS.
- CONTRACTORS SHALL PROTECT ALL EXISTING SITE IMPROVEMENTS NOT SCHEDULED FOR REMOVAL DURING CONSTRUCTION. THEY SHALL REPAIR ANY DAMAGE TO NEW CONDITION AT THEIR EXPENSE.
- VERIFY ALL EXISTING SITE CONDITIONS, SITE DIMENSIONS AND GRADES PRIOR TO START OF WORK.
- CONFORM TO THE RECOMMENDATIONS OF THE DRAWINGS, DETAILS AND SITE SOILS REPORT FOR COMPACTION, STRIPPING, GRADING, PAVING AND UTILITY TRENCHES.
- SOIL COMPACTION TESTS SHALL BE PAID FOR BY THE OWNER/DEVELOPER AS PER NOTE 3.
- ALL GRADING AND RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF MORGAN HILL AND THE RECOMMENDATION OF THE SOILS ENGINEER.
- CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING SERVICES AND UNDERGROUND UTILITIES & SEWERS. LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE AND SHOWN FOR GENERAL INFORMATION ONLY. CONTRACTOR SHALL CALL U.S.A. AT 800-642-2444 48 HOURS PRIOR TO UNDERGROUND WORK FOR FIELD LOCATOR SERVICE.
- ANY VOIDS CREATED BY STRUCTURE REMOVAL, TREE REMOVAL, SEPTIC TANK AND LEACH LINE REMOVAL MUST BE BACKFILLED WITH PROPERLY COMPACTED NATIVE SOILS THAT ARE FREE OF ORGANICS & OTHER DELETERIOUS MATERIALS OR WITH APPROVED IMPORT FILL & COMPACTED TO THE SOILS ENGINEER'S RECOMMENDATIONS.
- IT SHALL BE THE RESPONSIBILITY OF THE GRADING CONTRACTOR, DURING THE GRADING OPERATION, IN COOPERATION WITH MH ENGINEERING TO VERIFY QUANTITIES WITHIN THIS PROPERTY. THE EARTHWORK QUANTITIES SHOWN HAVE BEEN DILIGENTLY ESTIMATED BY THE ENGINEER, BASED UPON AVAILABLE INFORMATION, IN ORDER TO ASSIST THE CONTRACTOR. THE GROUND TOPOGRAPHY ELEVATIONS & CONTOURS WERE FURNISHED BY MH ENGINEERING. DATE OF TOPOGRAPHY SURVEY IS 10/11/2019. MH ENGINEERING DOES NOT GUARANTEE CURRENT ACCURACY. CONTRACTOR SHALL FIELD VERIFY FOR HIMSELF THAT NO ADDITIONAL GRADING IMPORTING OR EXPORTING OF EARTH HAS TAKEN PLACE SINCE THE DATE OF THE TOPO SURVEY STATE.
- THE EARTHWORK QUANTITIES SHOWN ARE PROVIDED AS A COURTESY AND CONVENIENCE TO THE CONTRACTOR. THE CUT & FILLS SHOWN ARE APPROXIMATE CALCULATED QUANTITIES BASED ON THE DIFFERENCE BETWEEN EXISTING GROUND ELEVATIONS (CONTOURS) & ROUGH GRADE ELEVATIONS. THE CALCULATIONS MAKES NO PROVISION FOR SCARIFICATION & COMPACTION WORK OR FILL. FOR THIS REASON & BECAUSE OF VARIABLES SUCH AS COMPACTION, SHRINKAGE & THE CONTRACTOR'S METHOD OF OPERATION, THE VOLUME OF DIRT ACTUALLY MOVED IN THE FIELD WILL PROBABLY VARY TO SOME EXTENT FROM THE CALCULATED VOLUME. FOR THE PURPOSE OF APPROXIMATING THE SHRINKAGE, 10% WAS USED FOR THE FILL VOLUMES.
- THE CONTRACTOR'S EARTHWORK BID REFLECTS HIS OWN CALCULATION OF THE EARTHWORK COMPACTED & COMPLETE IN PLACE TO THE DETAILS, LINE, AND GRADE SHOWN ON THE PLANS.



Grease Interceptor @ Trash Enclosure



NO.	DESCRIPTION	DATE	BY
REVISIONS			

**City of Morgan Hill**  
Public Works Department  
17575 PEAK AVE. MORGAN HILL, CA 95037  
(408) 778-6480 FAX (408) 779-7236

DRAWN: RS	DESIGN: WJM	HOR: None	SUPERVISED BY: [Signature]
CHECKED: [Signature]	DATE: [Date]	VERT: None	JOB NO: 219061
APPROVED: [Signature]	DATE: [Date]		DATE: 6/5/20

REGISTERED PROFESSIONAL ENGINEER  
WILLIAM J. MCCLINTOCK  
No. 24893  
EXP. 12-31-2021  
STATE OF CALIFORNIA

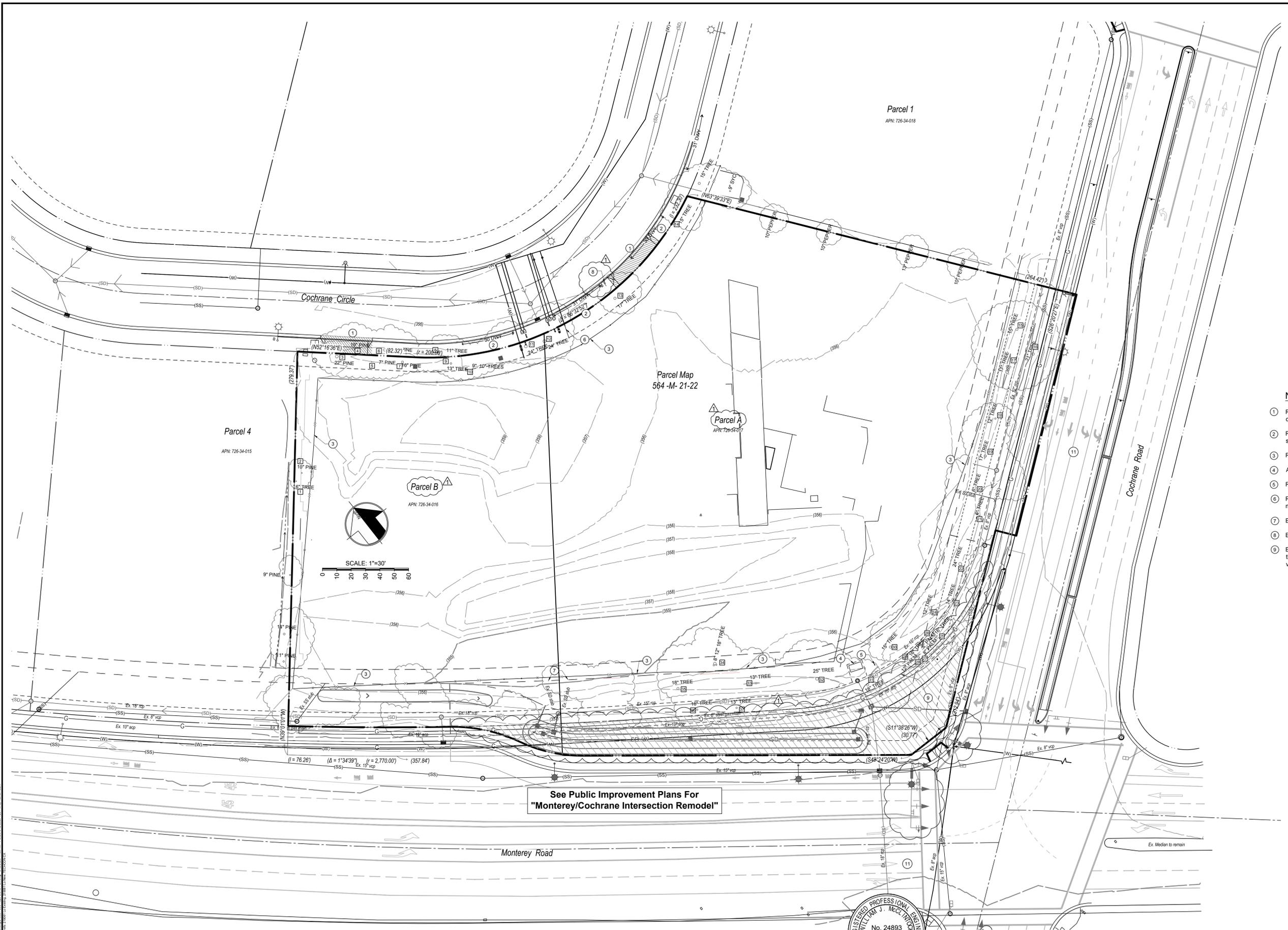
**MH engineering Co.**  
SUBDIVISIONS - LAND PLANNING - LAND SURVEYS  
16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037  
(408) 779-7381 FAX: (408) 228-5712

**Legend-Grading Notes & Details**  
Onsite Techcon Development  
Cochrane Circle  
MORGAN HILL CALIFORNIA

Onsite Techcon Development

Revision#	Date
1	6/5/2020

Note: All of these quantities are Engineer's estimates. Bidding General Contractors are responsible for their own quantities take offs.



Tree Removal Schedule	
Tree Number	Description
1	6" Pine
2	10" Pine
3	22" Pine
4	19" Pine
5	7" Pine
6	19" Pine
7	16" Pine
8	11" Tree
9	13" Tree
10	Twin 9" & 10" Tree
11	24" Tree
12	24" Tree
13	17" Tree
14	15" Tree
15	15" Tree
16	21" Tree
17	17" Tree
18	12" Tree
19	17" Tree
20	6" Tree
21	6" Tree
22	24" Tree
23	14" Tree
24	12" Tree
25	8" Palm
26	16" Tree
27	8" Palm
28	12" Palm
29	16" Tree
30	15" Tree
31	18" Tree
32	25" Tree
33	13" Tree
34	8", 12" & 18" Tree Cluster
35	18" Tree
36	16" Tree
37	13" Tree

- Notes:**
- Remove existing curb and gutter and install city standard driveway approach
  - Remove existing driveway approach and install city standard curb and gutter
  - Remove existing chainlink fence
  - Adjust existing pge vault grade to match pavement grade
  - Relocate existing Cable TV box
  - Remove portion of existing water lateral and connect to new DDCVA
  - Existing storm drain stubs to be abandon in place
  - Existing 'NO PARKING' sign to remain
  - Excess right-of-way area to be vacated. The plans reflect the resulting property line adjustments after the summary vacation and conveyance of the excess right-of-way.

Revision#	Date
1	6/5/2020

NO.	DESCRIPTION	DATE	BY	INSPECTOR	DATE
REVISIONS					

**City of Morgan Hill**  
Public Works Department  
CITY OF MORGAN HILL 17575 PEAK AVE. MORGAN HILL, CA 95037  
(408) 776-6480 FAX (408) 779-7236

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APPROVED:	DATE:	JOB NO: 219061	SIGNATURE: <i>William J. McClintock</i> 6/5/20

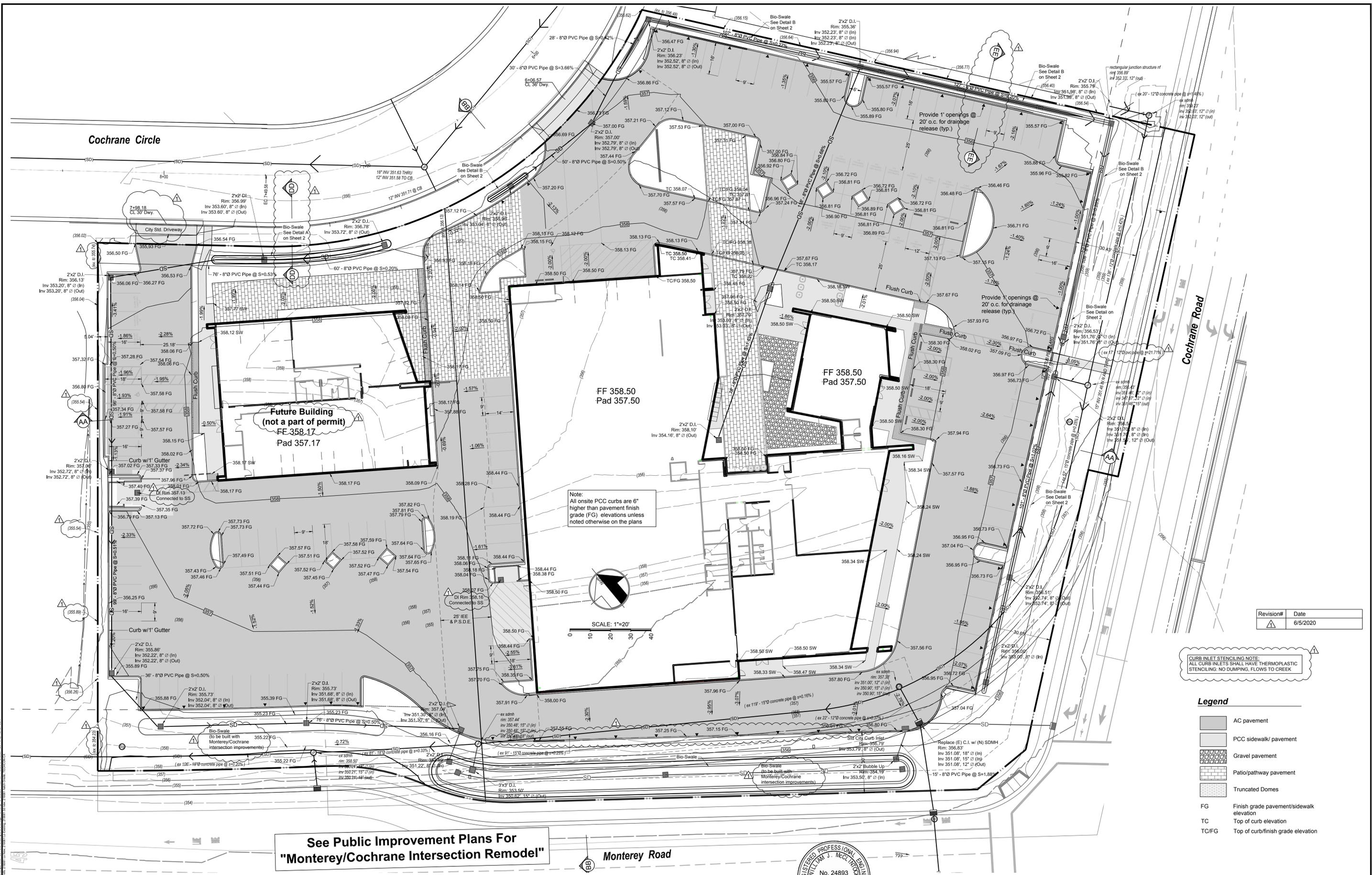
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WILLIAM J. MCCLINTOCK  
No. 24893  
EXP. 12-31-2021  
STATE OF CALIFORNIA

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**Topo/Demo Plan**  
**Onsite Techcon Development**  
**Cochrane Circle**  
MORGAN HILL CALIFORNIA

CITY FILE NO.	PLAN SET: 6/20
DRAWING: 3 of 9	

Topo/Demo Plan  
Onsite Techcon Development



Revision#	Date
1	6/5/2020

**CURB INLET STENCILING NOTE:**  
ALL CURB INLETS SHALL HAVE THERMOPLASTIC STENCILING. NO DUMPING. FLOWS TO CREEK

- Legend**
- AC pavement
  - PCC sidewalk/pavement
  - Gravel pavement
  - Patio/pathway pavement
  - Truncated Domes
  - FG** Finish grade pavement/sidewalk elevation
  - TC** Top of curb elevation
  - TC/FG** Top of curb/finish grade elevation

**See Public Improvement Plans For "Monterey/Cochrane Intersection Remodel"**

NO.	DESCRIPTION	DATE	BY	DATE
REVISIONS				

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Public Works Department  
CITY OF MORGAN HILL 17575 PEAK AVE MORGAN HILL, CA 95037  
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EXP. 12-31-2019  
STATE OF CALIFORNIA

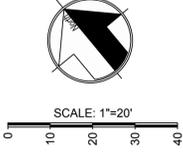
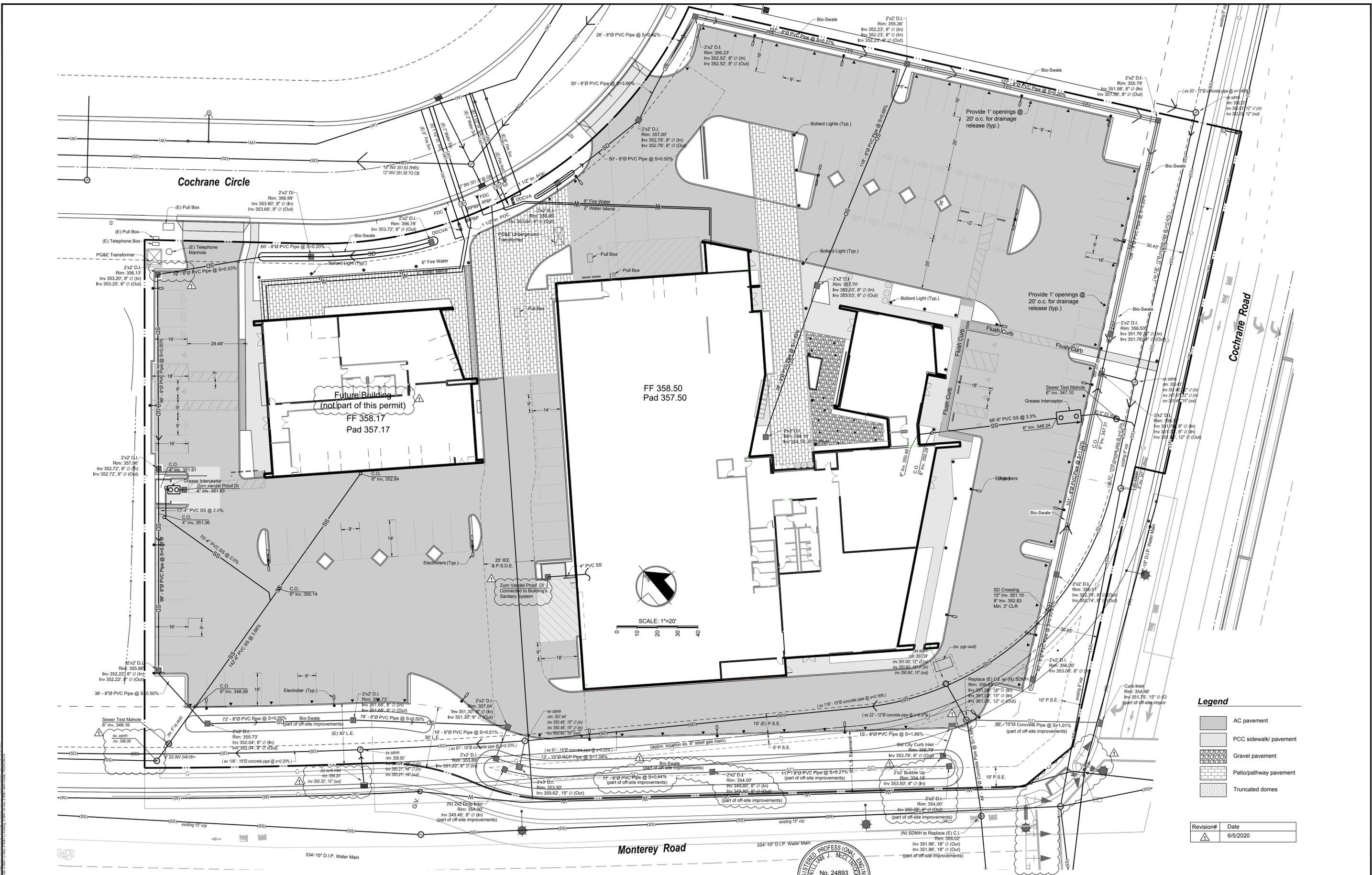
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**Site Grading and Drainage Plan**  
**Onsite Techcon Development**  
**Cochrane Circle**  
MORGAN HILL CALIFORNIA

CITY FILE NO.	PLAN SET: 6/20
DRAWING: 4 of 9	

Onsite Techcon Development Site Grading and Drainage Plan





**Legend**

- AC pavement
- PCC sidewalk/pavement
- Gravel pavement
- Patio/pathway pavement
- Truncated domes

Revision#	Date
1	6/5/2020

NO.	DESCRIPTION	DATE	BY	BY	DATE
REVISIONS					

**City of Morgan Hill**  
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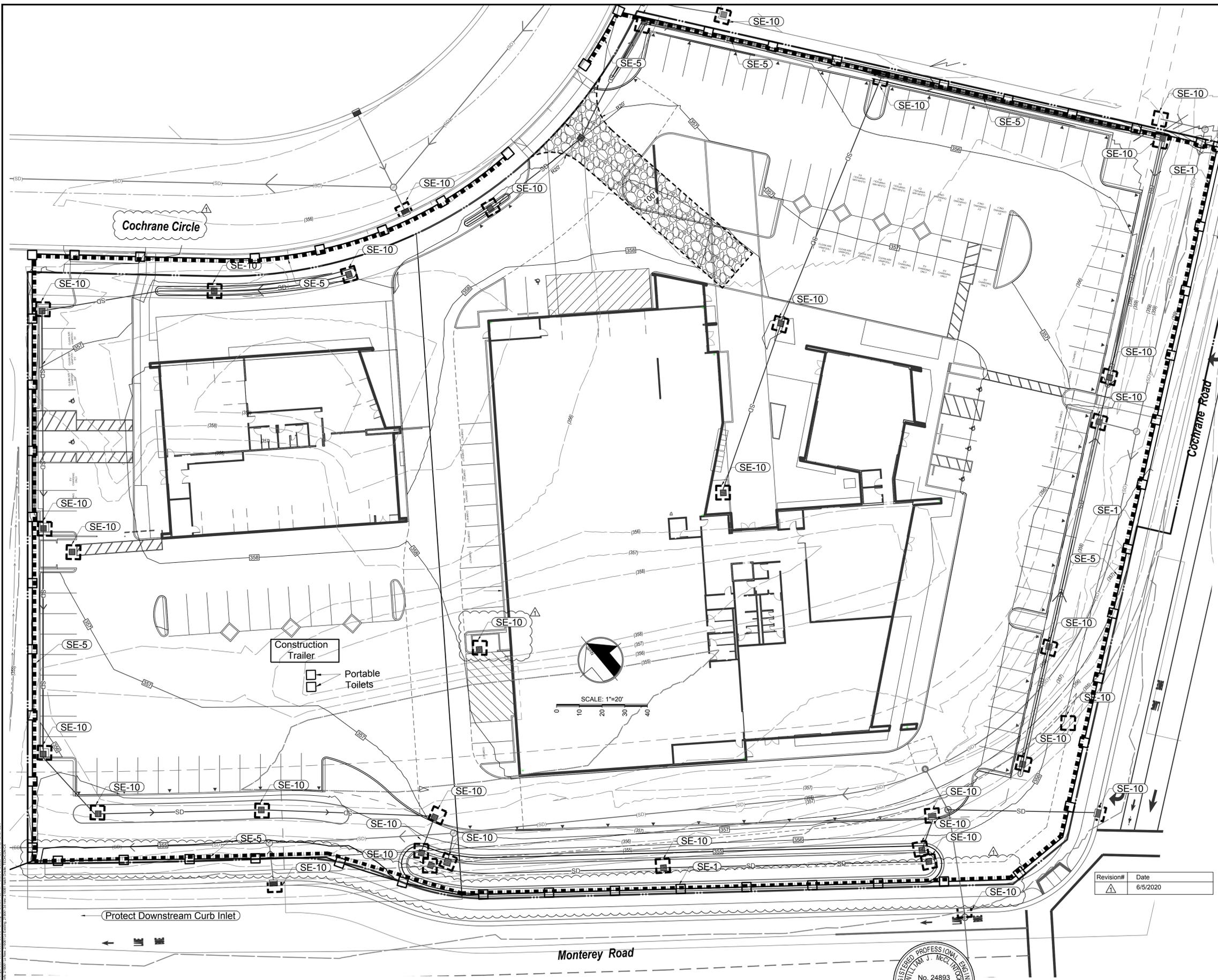
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**Site Utility Plan**  
**Onsite Techcon Development**  
**Cochrane Circle**  
MORGAN HILL CALIFORNIA

CITY FILE NO.	PLAN SET: 6/20
DRAWING: 6	of 9

Onsite Techcon Development





- GENERAL NOTES:**
- BEST MANAGEMENT PRACTICES(BMPs) FOR THIS PROJECT SHALL BE IN SUBSTANTIAL COMPLIANCE AT ALL TIMES WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THE PROJECT IN ACCORDANCE WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) ORDER NO. 2009-0009-DWG NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NO. CAS000002. THIS PERMIT REQUIRES THAT THE SWPPP BE KEPT UP TO DATE TO REFLECT THE CHANGING SITE CONDITIONS AND THE SWPPP BE KEPT UP TO DATE TO REFLECT THE CHANGING SITE CONDITIONS AND THE SWPPP IS TO BE AVAILABLE ON SITE AT ALL TIMES FOR REVIEW BY STATE AND LOCAL INSPECTORS.
  - THE EROSION CONTROL MEASURES ARE TO BE OPERABLE YEAR ROUND. BY SEPTEMBER 15, GRADING, INSTALLATION OF STORM DRAINAGE AND EROSION CONTROL FACILITIES WILL NEED TO BE COMPLETED WITH EROSION CONTROL PLANTING ESTABLISHED BY THAT TIME. NO GRADING SHALL OCCUR BETWEEN SEPTEMBER 15TH AND MAY 1ST UNLESS AUTHORIZED BY CITY OF MORGAN HILL.
  - STANDARD DROP INLET, UNDERGROUND DRAINAGE PIPE AND APPURTENANCES SHALL BE CONSTRUCTED PRIOR TO WINTERIZATION AND WILL REMAIN AS PERMANENT IMPROVEMENTS.
  - CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE CITY OF MORGAN HILL.
  - DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM.
  - THIS PLAN COVERS ONLY THE FIRST WINTER FOLLOWING GRADING. PLANS ARE TO BE RESUBMITTED FOR CITY APPROVAL PRIOR TO SEPTEMBER 1 OF EACH SUBSEQUENT YEAR UNTIL THE IMPROVEMENTS ARE ACCEPTED BY THE CITY.
  - SEED AND MULCH ARE TO BE PLACED ON ALL DISTURBED SLOPES STEEPER THAN 2% AND HIGHER THAN 3 FEET, ON ALL CUT AND FILL SLOPES WITHIN OR ADJACENT TO ALL PUBLIC RIGHTS OF WAY AND AS DIRECTED BY THE CITY. SEED PLACED BETWEEN MAY AND SEPTEMBER SHALL BE IRRIGATED AS NECESSARY TO ESTABLISH GROWTH BY SEPTEMBER 15.
  - STABILIZED ENTRANCE SHALL BE INSTALLED PER DETAIL TC-1 OF SWPPP MANUAL PRIOR TO GRADING ACTIVITIES.
  - DRAIN INLETS SHALL BE PROTECTED PER DETAIL SE-10 OF SWPPP MANUAL PRIOR TO GRADING ACTIVITIES OR AS SOON AS PRACTICAL.
  - SEDIMENT CONTROL BMPs SHALL BE INSTALLED PRIOR TO GRADING ACTIVITIES OR AS SOON AS PRACTICAL, AND MAINTAINED YEAR ROUND.

- STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MANUAL**
- GENERAL NOTES:**
- PRIOR TO CONSTRUCTION/GRADING ACTIVITY, A SWPPP MANUAL SHALL BE PREPARED BY ENGINEER/DEVELOPER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
  - A COPY OF THE CURRENT SWPPP MANUAL SHALL BE MADE AVAILABLE TO OPERATING PERSONNEL AND REMAIN ON SITE WHILE UNDER CONSTRUCTION DURING WORKING HOURS, COMMENCING WITH THE INITIAL CONSTRUCTION ACTIVITY AND ENDING WITH TERMINATION OF COVERAGE UNDER THE GENERAL PERMIT.
  - PER THE SWPPP MANUAL ALL SWPPP MEASURES AND BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE IMPLEMENTED AND MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION.
  - THE OWNER/DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL PROJECT CONTRACTORS AND SUBCONTRACTORS IMPLEMENT ALL APPLICABLE SWPPP MEASURES.
  - UNDER SECTION 308(b) OF THE CLEAN WATER ACT (CWA), THE SWPPP IS A REPORT TO BE MADE AVAILABLE TO THE PUBLIC. THE SWPPP SHALL BE PROVIDED, UPON REQUEST, TO THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) OR CITY PERSONNEL.
  - AS CONSTRUCTION ACTIVITY CHANGES SITE CONDITIONS, THE SWPPP MANUAL SHALL BE AMENDED TO REFLECT THE CURRENT SITE CONDITIONS. ALL SWPPP AMENDMENTS SHALL BE DILIGENTLY RECORDED AND IMPLEMENTED.
  - OFF AND ON SITE PLANS SHALL COORDINATE WITH THE SWPPP MANUAL. IN CASE OF A CONFLICT WITH SITE PLANS AND THE SWPPP MANUAL THE MOST CONSERVATIVE CONDITION SHALL APPLY.
  - NPDES WASTE DISCHARGE IDENTIFICATION NUMBER (WDID# 2 43C389861)

- NOTES:**
- DEVELOPER/CONTRACTOR SHALL COORDINATE WITH SWPPP MANUAL WPCD AND THIS PLAN AREAS DESIGNATED FOR (IF APPLICABLE):
- CONSTRUCTION MATERIAL LOADING AND UNLOADING
  - MATERIAL AND EQUIPMENT STORAGE AREA
  - CHEMICAL AND HAZARDOUS MATERIALS STORAGE AREA
  - SOLID WASTE STORAGE AREA
  - VEHICLE MAINTENANCE/STORAGE AND SERVICE/FUELING AREA
  - CONCRETE, STUCCO AND PAINT WASHOUT AREAS
  - STOCKPILES
- ALL ABOVE AREAS SHALL BE 50 FEET AWAY UPSTREAM OF PROPOSED AND EXISTING DRAIN INLETS.

- THIS PLAN SHALL BE AMENDED TO REFLECT THE CURRENT SITE CONDITIONS.
- MAINTENANCE NOTES:**
- SILT FENCES: SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH SIGNIFICANT RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
  - IF THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
  - SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS REMOVED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE AND SEEDED.
  - TEMPORARY DIVERSION DIKE: THIS MEASURE SHALL BE INSPECTED AFTER EACH SIGNIFICANT STORM AND REPAIRS SHOULD BE MADE TO THE DIKE, FLOW CHANNEL AND OUTLET AS NECESSARY.
  - APPROXIMATELY ONCE EVERY WEEK, WHETHER A STORM HAS OCCURRED OR NOT, DIKES SHOULD BE INSPECTED AND REPAIRED IF NEEDED. LOOK FOR BREACHES CAUSED BY VEHICLES CROSSING THE DIKE. DAMAGES CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY SHALL BE REPAIRED BEFORE THE END OF EACH WORKING DAY.
  - CONTRACTOR SHALL MAINTAIN THE CLEANLINESS OF ALL EXISTING STREETS AND REMOVE ALL SEDIMENTS CARRIED INTO THEM BY EROSION OF GRADED AREAS DAILY OR AS REQUIRED. FOR TYPICAL EROSION CONTROL DETAILS, SEE ATTACHED DETAIL SHEET.
  - STABILIZED ENTRANCE(S) SHALL BE IN PLACE AND MAINTAINED YEAR-ROUND.

Revision#	Date
1	6/5/2020

NO.	DESCRIPTION	DATE	BY	BY	DATE
REVISIONS					

**City of Morgan Hill**  
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**Erosion and Sediment Control Plan**  
**Onsite Techcon Development**  
**Cochrane Circle**  
MORGAN HILL CALIFORNIA

CITY FILE NO. PLAN SET: 6/20 DRAWING: **ECP-1** 8 of 9

BMPs required by construction phase

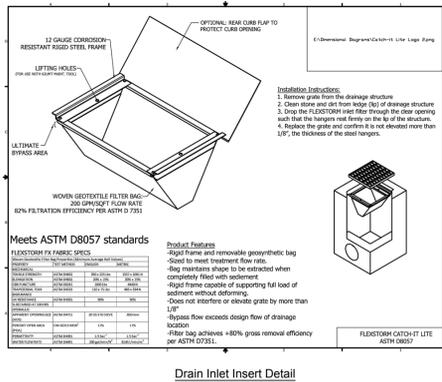
- Mass Grading / Clearing & Grubbing phase
SE-1 Silt fence around perimeter of disturbed areas
TC-1 Stabilized construction entrance @ entry/exit points to paved roads
SE-5 Fiber Rolls around temporary stockpiles
SE-6 Gravel bags at ends of gutters at project limits
SE-10 Storm drain inlet protection at inlets in project vicinity
EC-4 Hydroseeded disturbed areas upon completion of grading in areas that are not subject to further disturbance
Underground Utilities phase
SE-1 Silt fence around perimeter of project site
SE-5 Fiber Rolls around temporary stockpiles/trench spoils
SE-6 Gravel bags at ends of gutters at project limits
SE-10 Storm drain inlet protection at inlets in project vicinity and installed inlets
TC-1 Stabilized construction entrance @ entry/exit points to paved roads
Vertical Construction phase
SE-1 Silt fence around perimeter of project site
SE-5 Fiber Rolls around stockpiles and at back of sidewalks once installed
SE-6 Gravel bags at ends of gutters at project limits
SE-10 Storm drain inlet protection at inlets in project vicinity and at any installed inlets
TC-1 Stabilized construction entrance @ entry/exit points to paved roads
EC-4 Hydroseeded disturbed areas that are not subject to further disturbance
Stabilization phase
SE-1 Silt fence around perimeter to remain in place until final landscaping is established
SE-5 Fiber Rolls to remain in place until final landscaping is complete
SE-6 Gravel bags to remain in place until final landscaping is established
SE-10 Storm drain inlet protection to remain in place until final landscaping is established
EC-4 Hydroseeded all non-landscaped disturbed areas in project vicinity

General Notes:

- Best management practices(BMPs) for this project shall be in substantial compliance at all times with the storm water pollution prevention plan (SWPPP) prepared for the project in accordance with the state water resources control board (SWRCB) order no. 2009-0009-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002. This permit requires that the SWPPP be kept up to date to reflect the changing site conditions and the SWPPP be kept up to date to reflect the changing site conditions and the SWPPP is to be available on site at all times for review by state and local inspectors.
The erosion control measures are to be operable during the rainy season, September 15 to April 15. By September 15, grading, installation of storm drainage and erosion control facilities will need to be completed with erosion control planting established by that time, no grading shall occur between October 1 and April 15 unless authorized by the City Engineer.
Standard drop inlet, underground drainage pipe and appurtenances shall be constructed prior to winterization and will remain as permanent tract improvement.
Changes to this erosion and sediment control plan shall be made to meet field conditions only with the approval of or at the direction of the City Engineer. During the rainy season, all paved areas shall be kept clear of earth material and debris, the site shall be maintained so as to minimize sediment laden runoff to any storm drainage system.
This plan covers only the first winter following grading. Plans are to be resubmitted for City approval prior to September 1 of each subsequent year until the tract improvements are accepted by the City.
Seed and mulch are to be placed on all disturbed slopes steeper than 2% and higher than 3 feet, on cut and fill slopes within or adjacent to all public rights of way and as directed by the City. Seed planting between May and September shall be implemented as necessary to establish growth by October 1.
Stabilized entrance shall be installed per detail TC-1/TC-2 of SWPPP manual prior to grading activities.
Drain inlets shall be protected per details SE-10 of SWPPP manual prior to grading activities or as soon as practical.
Erosion control BMPs shall be installed prior to grading activities or as soon as practical, and maintained year round.

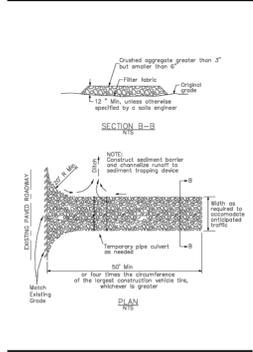
City of Morgan Hill Construction Stormwater Control Plan (CSCP) Notes:

- The contractor shall comply with all City of Morgan Hill Standards, and is advised that the City has adopted the California Storm Water Quality Association (CASQA) Handbook for Construction as its Storm Water Best management practices (BMP) standards. The BMPs contained within the City standards are minimum requirements. The contractor shall comply with all BMPs as directed by the City of Morgan Hill, including but not limited to BMPs for sediment control, tracking control, waste management and materials pollution control, non-storm water management control, and erosion control. Examples of BMPs that are required include but are not limited to:
SE-10 storm drain inlet protection
SE-7 Street sweeping and vacuuming
WM-7 solid waste management
WM-9 sanitary/septic waste management
WM-10 concrete waste management
Portable sanitary facilities shall have secondary containment, and be located on relatively level ground away from traffic areas and storm drain inlets.
The contractor shall notify the City 48 hours in advance of the start of construction to request inspection of storm water BMPs. All storm water BMPs shall be in place prior to the start of construction, and maintained throughout the duration of the project. The interim CSCP is considered a "living document" which may be subject to change from time to time in order to facilitate construction. All requested changes must be approved by the City of Morgan Hill prior to installation.
The contractor shall inspect all storm water BMPs regularly to assure they are functioning properly. If a BMP fails, the contractor shall make repairs immediately and clean all portions of storm drain systems that may have been contaminated by failure of BMP to the satisfaction of the City of Morgan Hill.



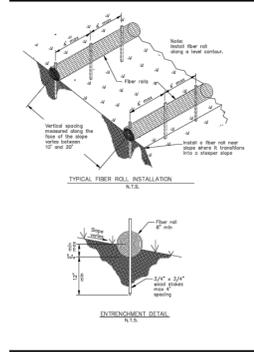
Construction Site - Tree Preservation Requirements
1. Remove grade from the drainage structure
2. Clean stone and dirt from filter (No) of drainage structure
3. Use the EXISTING silt filter through the clean opening such that the silt filter will empty on the full size structure.
4. Replace the grate and confirm it is not elevated more than 1/8\"/>

Stabilized Construction Entrance/Exit TC-1



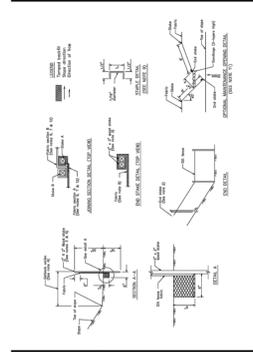
Notes: TC-1 Stabilized Construction Entrance/Exit Inspection and Maintenance
Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMPs are under way, inspect weekly during the rainy season and two-week intervals in the non-rainy season to verify continued BMP implementation.
Inspect local roads adjacent to the site daily. Sweep or vacuum to remove visible accumulated sediment.
Remove aggregate, separate and dispose of sediment if construction entrance/exit is clogged with sediment.
Keep all temporary roadway ditches clear.
Check for damage and repair as needed.
Replace gravel material when surface voids are visible.
Remove all sediment deposited on paved roadways within 24 hours.
Remove gravel and filter fabric at completion of construction

SE-5 Fiber Rolls



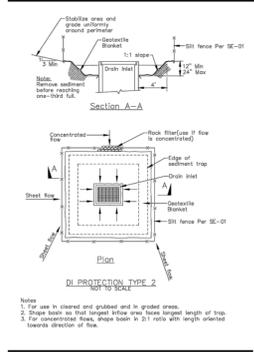
Notes: SE-5 Fiber Rolls Installation
Locate fiber rolls on level contours spaced as follows:
Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a maximum interval of 20 ft.
Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective)
Slope inclination 2:1 (H:V) or greater: Fiber Rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective)
Turn the ends of the fiber roll up slope to prevent runoff from going around the roll.
Stake fiber rolls into a 2 to 4 in. deep trench with a width equal to the diameter of the fiber roll.
Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in.
If more than one fiber roll is placed in a row, the rolls should be overlapped, not abutted.
Inspection and Maintenance
Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
Repair or replace split, torn, unweaving, or slumping fiber rolls.
If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when sediment accumulation reaches one-half the designated sediment storage depth, usually one-half the distance between the top of the fiber roll and the adjacent ground surface. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
If fiber rolls are used for erosion control, such as in a mini check dam, sediment removal should not be required as long as the system continues to control the grade. Sediment control BMPs will likely be required in conjunction with this type of application.

SE-1 Silt Fence



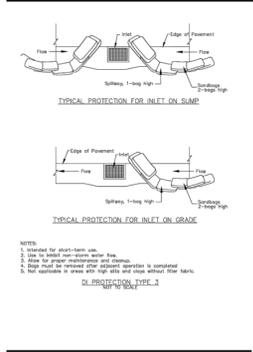
Notes: SE-1 Silt Fence Installation Guidelines
Silt fences are to be constructed on a level contour. Sufficient area should exist behind the fence for ponding or runoff without flooding or overtopping the fence.
A trench should be excavated approximately 6 in. wide and 6 in. deep along the line the proposed silt fence.
Bottom of the silt fence should be keyed-in a minimum of 12 in. Posts should be spaced a maximum of 4 ft apart and driven securely into the ground a minimum of 18 in. or 12 in. below the bottom of the trench.
When standard strength filter fabric is used, a plastic or wire mesh support fence should be fastened securely to the upslope side of posts using heavy-duty wire staples at least 1 in. long. The mesh should extend into the trench. When extra-strength filter fabric and closer post spacing are used, the mesh support fence may be eliminated. Filter fabric should be purchased in a long roll, then cut to the length of the barrier. When joints are necessary, filter cloth should be spliced together at a support post, with a minimum 6 in. overlap and both ends securely fastened to the post.
The trench should be backfilled with compacted native material.
Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
Repair undercut silt fences.
Repair or replace split, torn, slumping, or weathered fabric. The lifespan of silt fence fabric is generally 5 to 8 months.
Silt fences that are damaged and become unsuitable for the intended purpose should be removed from the site of work, disposed of, and replaced with new silt fence barriers.
Sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
Silt fences should be left in place until the upstream area is permanently stabilized. Until then, the silt fence must be inspected and maintained.
Holes, depressions, or other ground disturbance caused by the removal of the silt fences should be backfilled and repaired.

Storm Drain Inlet Protection SE-10

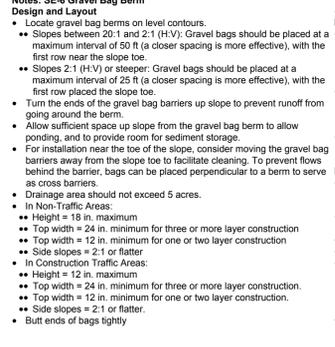


Notes: SE-10 Storm Drain Inlet Protection Installation
DI Protection Type 2 - Excavated Drop Inlet Sediment Trap - The excavated drop inlet sediment trap (Type 2) is shown in the attached figures. Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd3/acre of drainage area.
Inspection and Maintenance
Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
Filter Fabric Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered), and are reasonably perpendicular to the ground. Replace damaged stakes.
Gravel Filters. If the gravel becomes clogged with sediment, it must be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
Sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
Remove storm drain inlet protection once the drainage area is stabilized.
Clean and regrade area around the inlet and clean the inside of the storm drain inlet as it must be free of sediment and debris at the time of final inspection.

SE-10 Storm Drain Inlet Protection



SE-6 Gravel Bag Berm Design and Layout

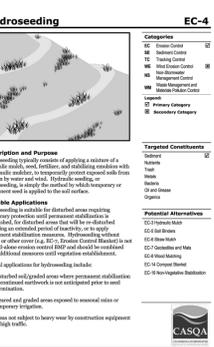


Notes: SE-6 Gravel Bag Berm Design and Layout
Locate gravel bag berms on level contours.
Slopes between 20:1 and 2:1 (H:V): Gravel bags should be placed at a maximum interval of 50 ft (a closer spacing is more effective), with the first row near the slope toe.
Slopes 2:1 (H:V) or steeper: Gravel bags should be placed at a maximum interval of 25 ft (a closer spacing is more effective), with the first row placed the slope toe.
Turn the ends of the gravel bag barriers up slope to prevent runoff from going around the berm.
Allow sufficient space up slope from the gravel bag berm to allow ponding, and to provide room for sediment storage.
For installation near the toe of the slope, consider moving the gravel bag barriers away from the slope toe to facilitate cleaning. To prevent flows behind the barrier, bags can be placed perpendicular to a berm to serve as cross barriers.
Drainage area should not exceed 5 acres.
In Non-Traffic Areas:
Height = 18 in. maximum
Top width = 24 in. minimum for three or more layer construction
Side slopes = 2:1 or flatter
In Construction Traffic Areas:
Height = 12 in. maximum
Top width = 24 in. minimum for three or more layer construction.
Side slopes = 2:1 or flatter.
But ends of bags tightly

Gravel Bag Berm

On multiple row, or multiple layer construction, overlap butt joints of adjacent row and row beneath.
Use a pyramid approach when stacking bags.
Materials
Bag Material: Bags should be woven polypropylene, polyethylene or polyamide fabric or butrap, minimum unit weight of 4 ounces/yd2, Mullen burst strength exceeding 300 bin2 in conformance with the requirements in ASTM designation D3786, and ultraviolet stability exceeding 70% in conformance with the requirements in ASTM designation D4555.
Bag Size: Each gravel-filled bag should have a length of 18 in., width of 12 in., thickness of 3 in., and mass of approximately 33 lbs. Bag dimensions are nominal, and may vary based on locally available materials.
Fill Material: Fill material should be 0.5 to 1 in. Class 2 aggregate base, clean and free from clay, organic matter, and other deleterious material, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
Inspection and Maintenance
Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
Gravel bags exposed to sunlight will need to be replaced every two to three months due to degradation of the bags.
Reshape or replace gravel bags as needed.
Repair washouts or other damage as needed.
Sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
Remove gravel bag berms when no longer needed. Remove sediment accumulation and clean, re-grade, and stabilize the area. Removed sediment should be incorporated in the project or disposed of.

Hydroseeding EC-4



Notes: EC-4 Hydroseeding
Hydroseeding is the application of a mixture of seed, fertilizer, and mulch to a prepared soil surface. It is a fast and effective method for establishing vegetation on disturbed areas.
Hydroseeding is used to stabilize erodible areas, such as slopes, and to restore degraded areas.
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Legend

- SE-1 Silt fence
SE-5 Fiber Rolls
SE-6 Gravel Bag Berm
SE-10 Storm drain inlet protection
TC-1 Stabilized construction entrance

Table with columns: NO., DESCRIPTION, DATE, BY, REVISIONS

City of Morgan Hill Public Works Department logo and address: 17575 PEAK AVE. MORGAN HILL, CA 95037

Table with columns: DRAWN, CHECKED, APPROVED, DESIGN, DATE, JOB NO.

Professional Engineer seal for WILLIAM J. MCCLINTOCK, No. 24893, State of California, Exp. 12-31-2021

MH engineering Co. logo and address: 16075 VINEYARD BOULEVARD MORGAN HILL, CA 95037

Erosion And Sediment Control Details Onsite Techon Development Cochrane Circle MORGAN HILL CALIFORNIA