

Tommy's Carwash Santaquin

60 N 400 East
Santaquin, UT, 84655



Vicinity Map
Not to Scale

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Abbreviations

BCR	Begin Curb Return	PT	Point of Tangency
BOL	Ballard	PVC	Polyvinyl Chloride
BRW	Finish Grade - Bottom of Retaining Wall	PVI	Point of Vertical Intersection
CATV	Cable Television Box	RCP	Reinforced Concrete Pipe
CB	Catch Basin	RD	Roof Drain
CMP	Corrugated Metal Pipe	SB	Signal Box
COB	Cleanout Box	SD	Storm Drain
COTG	Cleanout to Grade	SDMH	Storm Drain Manhole
EA	Edge of Asphalt	SMH	Sewer Manhole
EB	Electrical Box	SP	Signal Pole
EC	End of Curve	SS	Sanitary Sewer
ECR	End Curb Return	SVZ	Sight Visibility Zone
GB	Grade Break	SW	Secondary Water
GM	Gas Meter	TA	Top of Asphalt
HB	Hose Bib	TB	Telephone Box
HP	High Point	TBC	Top Back of Curb
I	Irrigation Line	TG	Top of Grate
ICB	Irrigation Control Box	TMH	Telephone Manhole
Lip	Lip of Gutter	TP	Top of Concrete
LP	Light Pole	TRW	Finish Grade - Top of Retaining Wall
MH	Manhole	TW	Top of Walk
Mon	Monument	VC	Vertical Curve
PC	Point of Curvature	VPC	Vertical Point of Curve
PCC	Point of Compound Curvature	VPT	Vertical Point of Tangency
PI	Point of Intersection	WL	Waterline
PM	Power Meter	WP	Working Point
PP	Power Pole	WV	Water Valve

Legend

Proposed Curb & Gutter	Existing Improvements	
Proposed Open Face C & G	Existing Asphalt	
Proposed Asphalt	Existing Concrete	
Proposed Concrete	Existing Inlet Box	
Proposed Truncated Domes	Existing Catch Basin	
Proposed Inlet Box	Existing Manhole	
Proposed Catch Basin	Existing Fire Hydrant	
Proposed Manhole	Existing Water Valve	
Proposed Transformer	Existing Overhead Power Line	
Proposed Meter Box	Existing Water	
Proposed Water Meter	Existing Secondary Water	
Proposed Comba Box	Existing Sewer	
Proposed Fire Hydrant	Existing Storm Drain	
Proposed Water Valve	Existing Gas	
Proposed Water Line	Existing Power	
Proposed Sanitary Sewer	Existing Telephone	
Proposed Storm Drain	Existing Fence	
Proposed Conduit Line	Flowline	
Proposed Power Line	Centerline	
Proposed Gas Line	Existing Contour	
Proposed Fire Line	Existing Spot	
Proposed Secondary Water Line	Existing Light Pole	
Proposed Roof Drain	Existing Street Light	
Proposed Fence	Existing Building	
Ridge line	Existing Telephone Box	
Grade Break	Existing Power Meter	
Proposed Contour	Existing Electrical Box	
Direction of Drainage	Existing Electrical Cabinet	
Proposed Spot	Existing Gas Meter	
ADA Accessible Route	Existing Water Meter	
Property Line	Existing Irrig. Control Box	
Sawcut Line	Existing Ballard	
Proposed Light Pole	Existing Hose Bib	
Proposed Street Light	Working Point	
Proposed Building	Existing Deciduous Tree	
Existing Power Pole	Existing Coniferous Tree	
Existing Power Pole w/ Guy		
Existing Utility Marker		
Existing Post		

Santaquin City Notes

It is important for the developer and the general contractor to understand that it is his/her responsibility to ensure that all improvements installed within this development are constructed in full compliance with all state and Santaquin City codes, ordinances and standards. This fact does not relieve the developer or general contractor from full compliance with all minimum state and Santaquin City standards.

Santaquin City Note to Developers & General Contractors
All recommendations made in the provided geotechnical report/study shall be followed explicitly during construction of building and site improvements.

ANDERSON WAHLEN & ASSOCIATES
2010 North Redwood Road, Salt Lake City, Utah 84116
(801) 521-8529 - AWAengineering.net

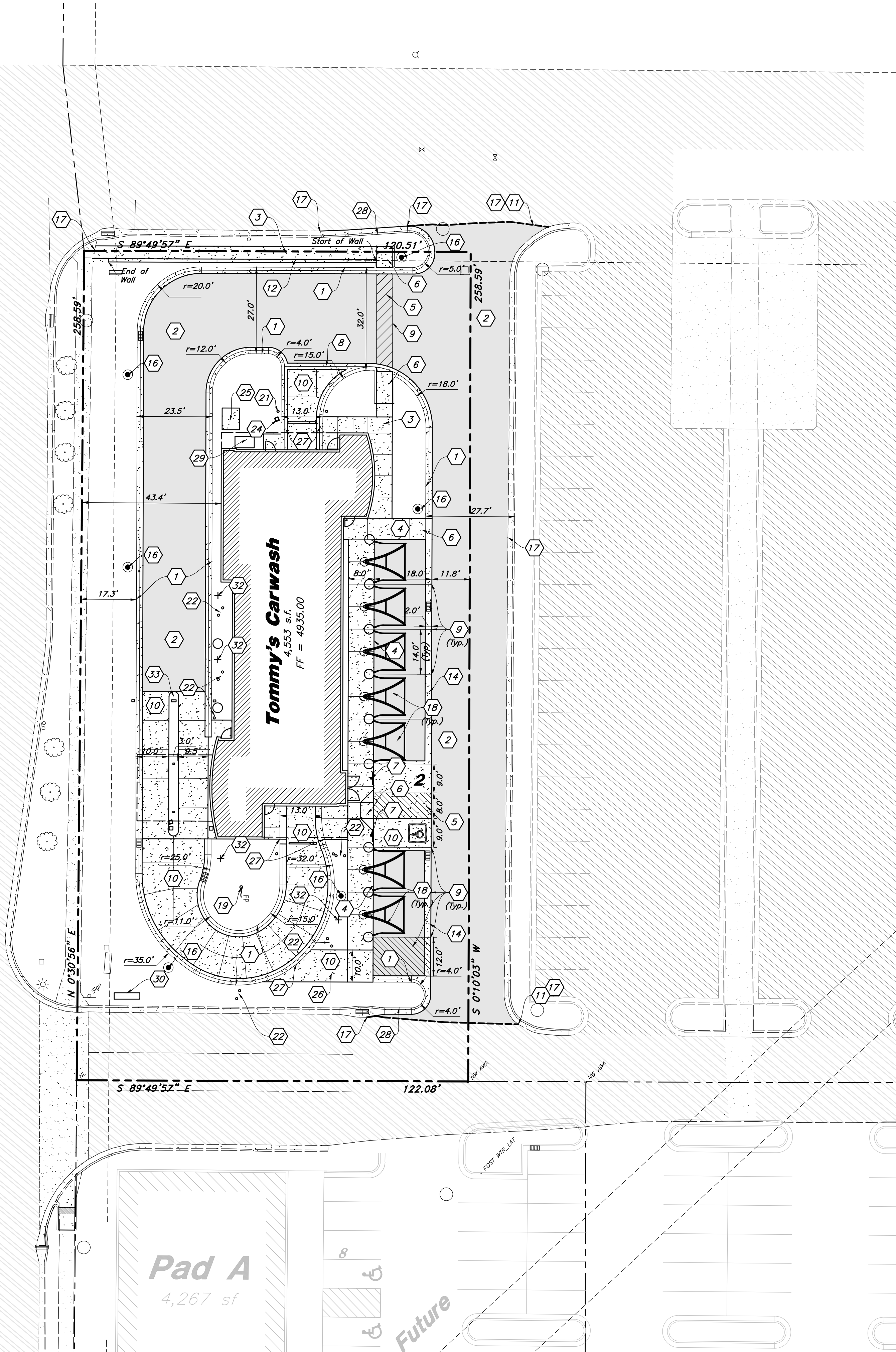
Cover Sheet
Tommy's Carwash Santaquin
60 N 400 East
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REGISTERED PROFESSIONAL ENGINEER
No. 7951285
SHAUN N. YOUNG
6/24/21
STATE OF UTAH

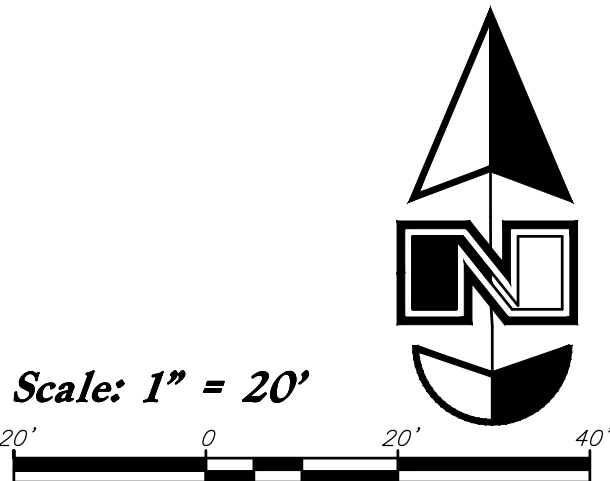
17 Jun, 2021

SHEET NO.
C0.0

400 East Street



Site Data
Site Area = 31,365 s.f. (0.72 ac.)
Landscape Area Provided = 7,480 s.f. (24%)
Impervious Area Provided = 19,332 s.f. (62%)
Building Area = 4,553 s.f. (14%)
Parking Provided = 2 stalls



Site Construction Notes

- Const. Std. Rolled Curb
- Const. Asphalt Paving
- Const. Conc. Sidewalk
- Const. Thickened Edge Sidewalk
- Const. Accessible Striping per MUTCD & ICC/ANSI A117.1 (Latest Edition) (See Accessible Details and Notes)
- Const. Accessible Ramp per ICC/ANSI A117.1 (Latest Edition) (See Grading Detail Sheets)
- Const. Accessible Sign per MUTCD & ICC/ANSI A117.1 (Latest Edition) (See Accessible Details and Notes)
- Const. Gutter Pan
- Const. 4" White Paint Stripe (Typ.) Contractor shall provide 15 mils min. thickness
- Const. Conc. Paving
- Sawcut; Provide Smooth Clean Edge
- Const. Keystone Block Retaining Wall (Requires Separate Permit. Wall Design by Others)
- Not Used
- Const. 2' Conc. Waterway
- Const. Bollard
- Const. Light Pole (See Site Electrical Plans)
- Conn. & Match Existing Improvements
- Const. Vacuum Station (See Arch. Plans)
- Const. Flag Pole
- Not Used
- Const. Camera Pole (See Arch. Plans)
- Const. U-Shaped Snap Signs (See Arch. Plans)
- Not Used
- Const. Relax/Go Light (See Arch. Plans)
- Const. Transformer Concrete Pad
- Const. Bail Out Lane
- Const. Concrete Rolled Curb to Dub Down
- Const. 24" Curb and Gutter
- AC Unit Pad (See Arch. Plans)
- Const. Monument Sign (By Separate Permit)
- Const. Approve/Go Light
- Const. License Plate Recorder
- Const. Pay Lane Raised Concrete Island, 3'-0" Wide, 4" High for TX Sites and 3'-6" Wide, 4" High For Private Brand with Auto Teller

General Site Notes:

- All dimensions are to back of curb unless otherwise noted.
- Fire lane markings and signs to be installed as directed by the Fire Marshal.
- Asile markings, directional arrows and stop bars will be painted at each driveway as shown on the plans.
- Const. curb transition at all points where curb abuts sidewalk, see detail.
- Contractor shall place asphalt paving in the direction of vehicle travel where possible.
- Limits of demolition/disturbed areas shown on the plans may not be an exact depiction. It is the contractor's responsibility to determine the means and methods of how the work will be completed. The contractor shall determine the area of construction impact. The contractor is responsible to restore all impacted areas and all restoration shall be part of the contract bid.
- The trash enclosure for the site will be shared with the neighboring property.

Construction Survey Note:

The Construction Survey Layout for this project will be provided by Anderson Wahlen & Associates. The Layout Proposal and Professional Services Agreement will be provided to the General Contractor(s) for inclusion in base bids. The Survey Layout proposal has been broken out into Building Costs and Site Costs for use in the Site Work Bid Form.

Survey Control Note:
The contractor or surveyor shall be responsible for following the National Society of Professional Surveyors (NSPS) model standards for any surveying or construction layout to be completed using Anderson Wahlen and Associates ALTA Surveys or Anderson Wahlen and Associates construction improvement plans. Prior to proceeding with construction staking, the surveyor shall be responsible for verifying horizontal control from the survey monuments and for verifying any additional control points shown on an ALTA survey, improvement plan, or on electronic data provided by Anderson Wahlen and Associates. The surveyor shall also use the benchmarks as shown on the plan, and verify them against no less than three existing hard improvement elevations included on these plans or on electronic data provided by Anderson Wahlen and Associates. If any discrepancies are encountered, the surveyor shall immediately notify the engineer and resolve the discrepancies before proceeding with any construction staking.

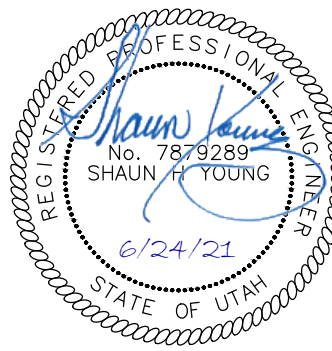
PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

Site Plan

Tommy's Carwash Santaquin

60 N 400 East
Santaquin, UT

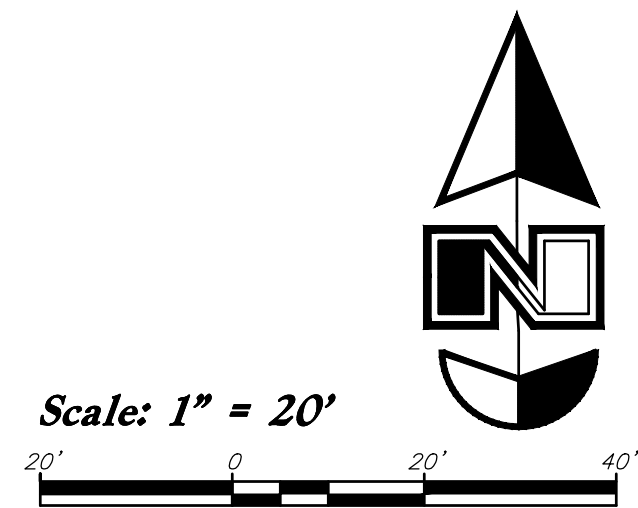
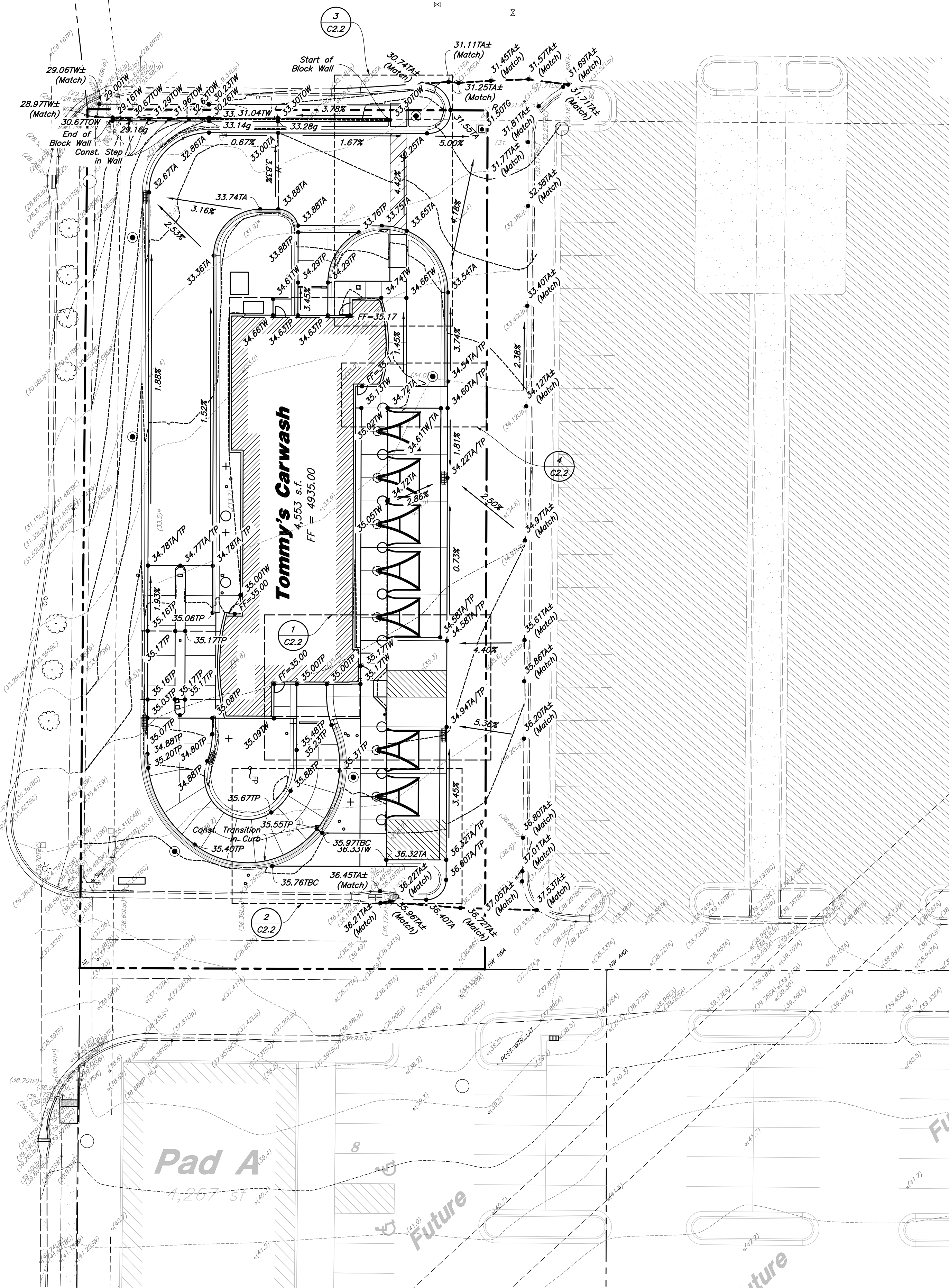


17 Jun, 2021

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2014-2015 (ML)



1. All grading shall be in accordance with the project geotechnical study.
2. Cut slopes shall be no steeper than 3 horizontal to 1 vertical.
3. Fill slopes shall be no steeper than 3 horizontal to 1 vertical.
4. Fills shall be compacted per the recommendations of the geotechnical report prepared for the project and shall be certified by a Geotechnical Engineer.
5. Areas to receive fill shall be properly prepared and approved by a Geotechnical Engineer prior to placing fill.
6. Fills shall be benched into competent material as per specifications and geotechnical report.
7. All trench backfill shall be tested and certified by a Geotechnical Engineer.
8. A geotechnical engineer shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.
9. The final compaction report and certification from a Geotechnical Engineer shall be submitted as part of field testing performed. Each test shall be identified with the method of obtaining the in-place density, whether sand cone or drive ring and shall be so noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the field technician.
10. Dust shall be controlled by watering.
11. The location and protection of all utilities is the responsibility of the permittee.
12. Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during the grading process.
13. All public roadways must be cleared daily of all dirt, mud and debris deposited on them as a result of the grading operation. Cleaning is to be done to the satisfaction of the City Engineer.
14. The site shall be cleared and grubbed of all vegetation and deleterious matter prior to grading.
15. The contractor shall provide shoring in accordance with OSHA requirements for trench walls.
16. Aggregate base shall be compacted per the geotechnical report prepared for the project.
17. The recommendations in the following Geotechnical Engineering Report by GSH are included in the requirements of grading and site Preparation. The Report is titled "Proposed Ridley's Family Market Development, Northeast Corner of the Intersection of Main Street and 400 East Street, Santaquin, Utah."

Project No.: 2588-001-18
Dated: April 26, 2018

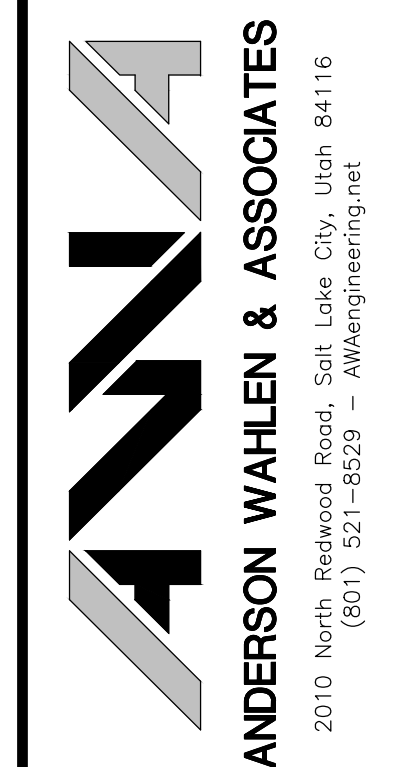
18. As part of the construction documents, owner has provided contractor with a topographic survey performed by manual or aerial means. Such survey was prepared for project design purposes and is provided to the contractor as a courtesy. It is expressly understood that such survey may not accurately reflect existing topographic conditions.
19. If Contractor observes evidence of hazardous materials or contaminated soils he shall immediately contact the project engineer to provide instructions and obtain approval before proceeding with disturbance of said materials or contaminated soil.

1. *Open face gutter shall be constructed where drainage is directed away from curb.*
- ① 2. *Open face gutter locations are indicated by shading and notes on the grading plan.*
3. *It is the responsibility of the surveyor to adjust top of asphalt grades to top of curb grades at the time of construction staking.*
4. *Refer to the typical details for standard and open face curb and gutter dimensions.*
- ② 5. *Transitions from open face to standard curb and gutter are to be smooth. Hand form these areas if necessary.*
6. *Spot elevations are shown on this plan with text marking. Coordinate and verify site information with project drawings.*

1. Concrete sidewalk shall be constructed with a cross slope of 1.5% (2.08% Maximum) unless shown otherwise on plan.
2. Running slope of sidewalks shall be built per grades shown on the plan. where grades are not provided, sidewalks shall be constructed with a maximum running slope of 4.5%
3. Refer to the Site Plan for sidewalk dimensions.

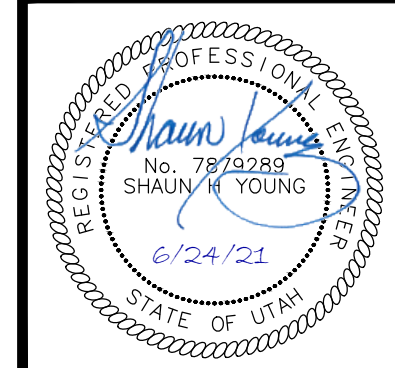
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Designed by: SY - NN
Drafted by: NE
Client Name:
Tommy's Carwash
21-080 GR



Grading Plan

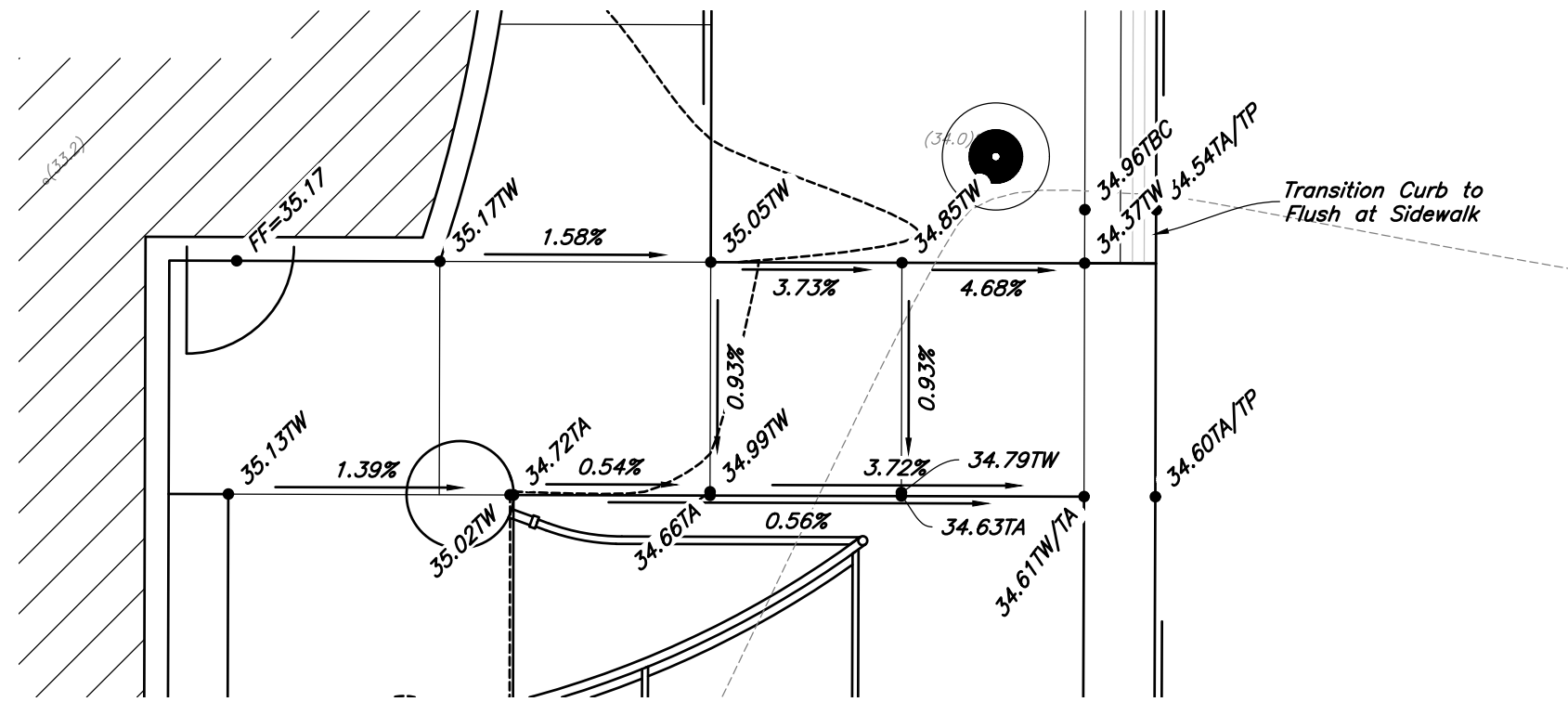
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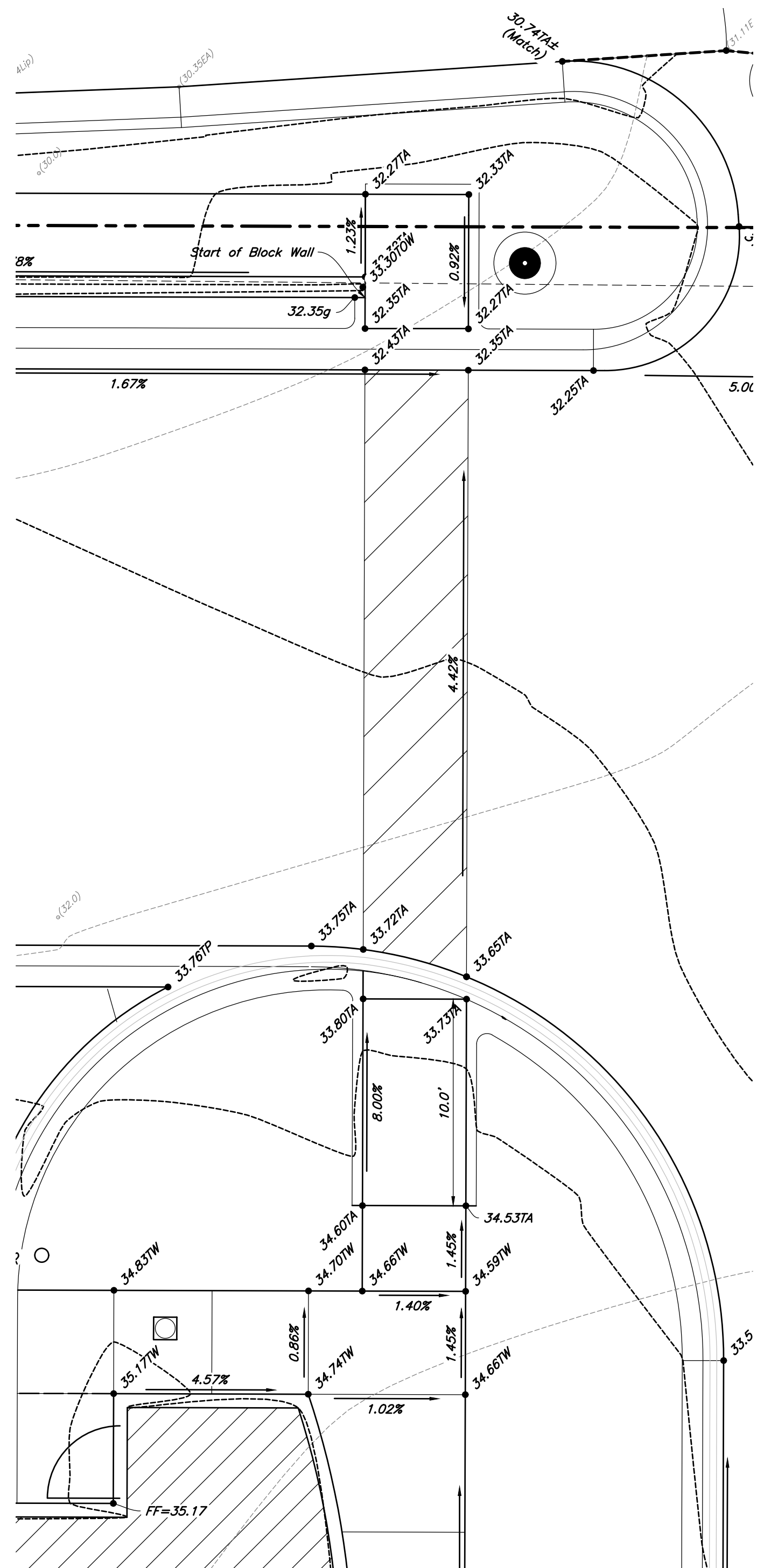
17 Jun, 2021

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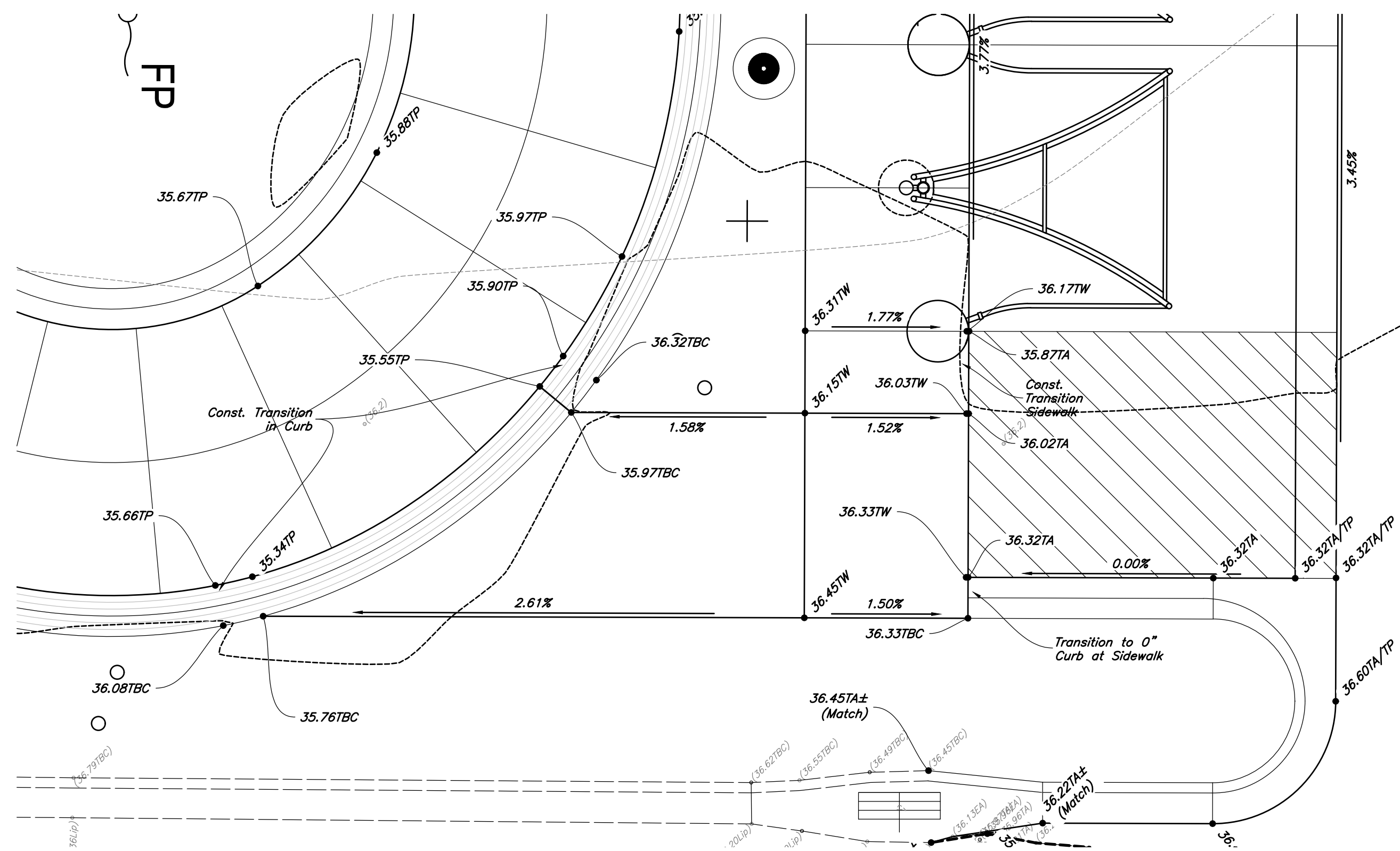
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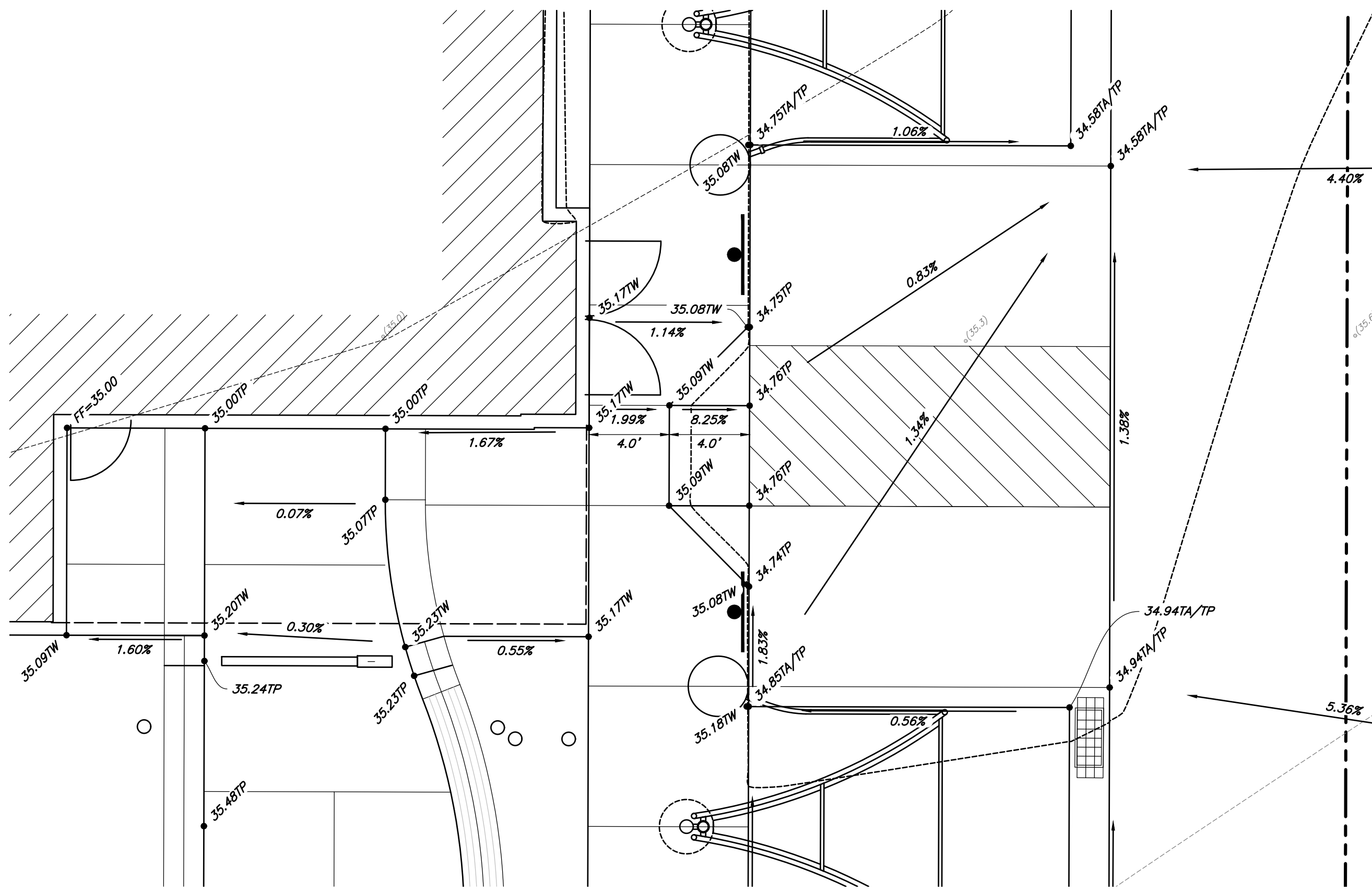
4 Sidewalk Detail
Scale: 1" = 5'



3 Curb Ramp Detail
Scale: 1" = 5'



2 Bailout Lane Detail
Scale: 1" = 5'



1 ADA Stall and Ramp Detail
Scale: 1" = 5'

Prior to any construction of any Accessible Improvements, a Pre-Construction meeting shall be held between Contractor and Engineer. Contractor is Responsible to contact Engineer and Schedule Pre-Construction Meeting

Public Curb Ramp Construction Notes

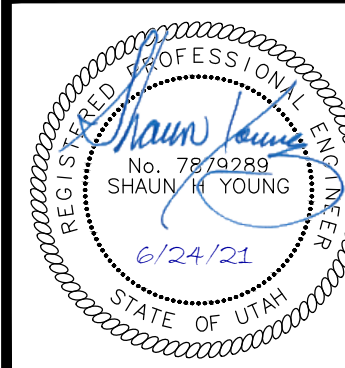
1. All public curb ramps shall be constructed in accordance with governing municipalities standards and specifications.
2. It is the contractors responsibility to obtain governing municipalities standards and specifications.
3. The Client, Contractor and Subcontractor should immediately notify the Consultant of any conditions of the project that they believe do not comply with the current state of Accessible and Usable Buildings and Facilities (ICC/ANSI A117.1-Latest Edition) and/or FHAA.

Private Curb Ramp Construction Notes

1. Slopes provided are per Anderson Wahlen & Associates design standards. Slopes shown are below ADA and ICC maximum requirements, unless noted otherwise in project plans.
2. The Client, Contractor and Subcontractor should immediately notify the Consultant of any conditions of the project that they believe do not comply with the current state of Accessible and Usable Buildings and Facilities (ICC/ANSI A117.1-Latest Edition) and/or FHAA.
3. Counter slopes of adjoining gutters & paving adjacent to the curb ramp shall not be steeper than 4.50%.
4. Accessible ramp flares shall be poured separately from ramp to ensure proper slopes.
5. Contractor to transition curb or sidewalk height from 6" to 0" reveal. Curb or sidewalk height to match ramp throughout transition.

Grading Details and Notes

Tommy's Carwash Santaquin
60 N 400 East
Santaquin, UT



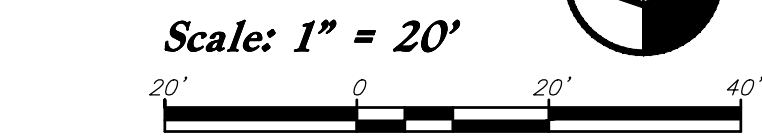
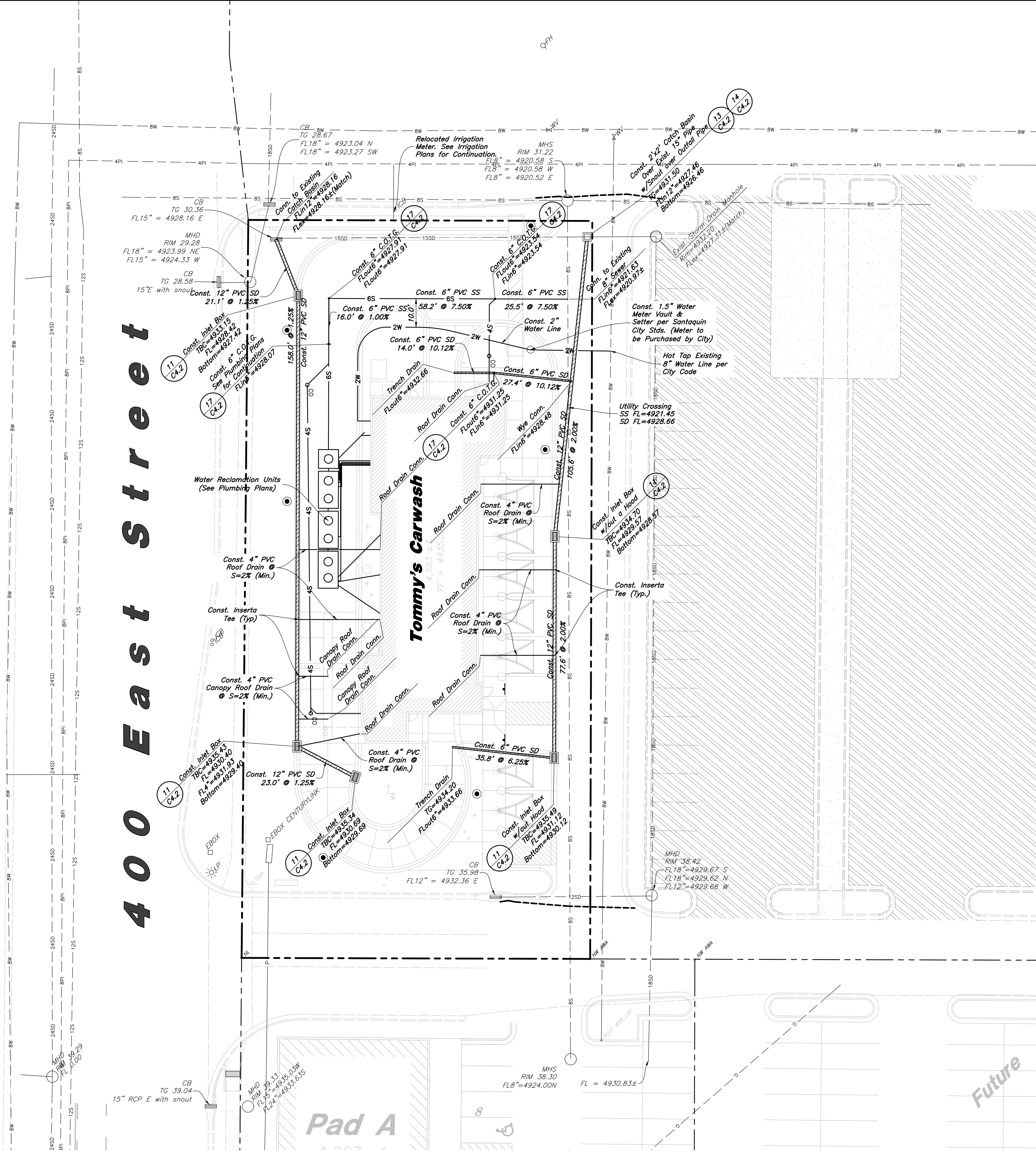
17 Jun, 2021

SHEET NO.
C2.2

ANDERSON WAHLEN & ASSOCIATES
2010 North Redwood Road, Salt Lake City, Utah 84116
(801) 321-8529 - AWaengineering.net

Designed by: SY - NN
Drafted by: NE
Client Name:
Tommy's Carwash
21-080 GR

REV	DATE	DESCRIPTION



General Utility Notes:

1. All sewer and water facilities shall be constructed per local jurisdiction standards and specifications. Contractor is responsible to obtain standards and specifications.
2. Coordinate all utility connections to building with plumbing plans and building contractor.
3. Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connections being made.
4. All catch basin and inlet box grates are to be bicycle proof.
5. Refer to the site electrical plan for details and locations of electrical lines, transformers and light poles.
6. Gas lines, telephone lines, and cable TV lines are not a part of these plans.
7. Water meters are to be installed per city standards and specifications. It will be the contractor's responsibility to install all items required.
8. Water lines, valves, fire hydrants, fittings etc. are to be constructed as shown. Contractor is responsible, at no cost to the owner, to construct any vertical adjustments necessary to clear sewer, storm drain, or other utilities as necessary including valve boxes and hydrant spools to proper grade.
9. Contractor shall install a 12" concrete collar around all manholes, valves, catch basins, cleanouts & any other structures located within the asphalt.

Utility Piping Materials:

All piping materials shall be per local agency standards or the specifications below at a minimum. All utility piping shall be installed per manufacturers recommendations. Refer to project specifications for more detailed information regarding materials, installation, etc.

- Culinary Service Laterals
1. Polyethylene (PE) Water Pipe (Up to 3 inches diameter), AWWA C901, PE 3408, SDR 9 (200 psi)
 2. Copper Pipe (Up to 3 inches diameter): Type "K."

Water Main Lines and Fire Lines

1. Polyvinyl Chloride (PVC) (4 inches to 12 inches diameter): AWWA C900, Class 200

Sanitary Sewer Lines

1. All sewer piping to be Polyvinyl Chloride (PVC) sewer pipe, ASTM D3034, Type PSM, SDR 35

Storm Drain Lines

1. 12" pipes or smaller - Polyvinyl Chloride (PVC) sewer pipe, ASTM D3034, Type PSM, SDR 35
2. 15" pipes or larger - Reinforced Concrete Pipe, ASTM C76, Class III

CAUTION :
The locations and/or elevations of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete.

Storm Drain & Sanitary Sewer Note:
All Storm Drainage & Sanitary Sewer Pipe Lengths and Slopes are from Center of Structure to Center of Structure

- Onsite Utility Connection Notes:**
1. Contractor shall field verify all utility connection elevations prior to any utility construction has begun.
 2. Contractor shall construct utility lines into site prior to any onsite utility construction. Gravity lines are to be constructed starting at the lowest point and be installed prior to any waterline installation
 3. Construction of any onsite utilities prior to the offsite connection will be done at the contractors risk.

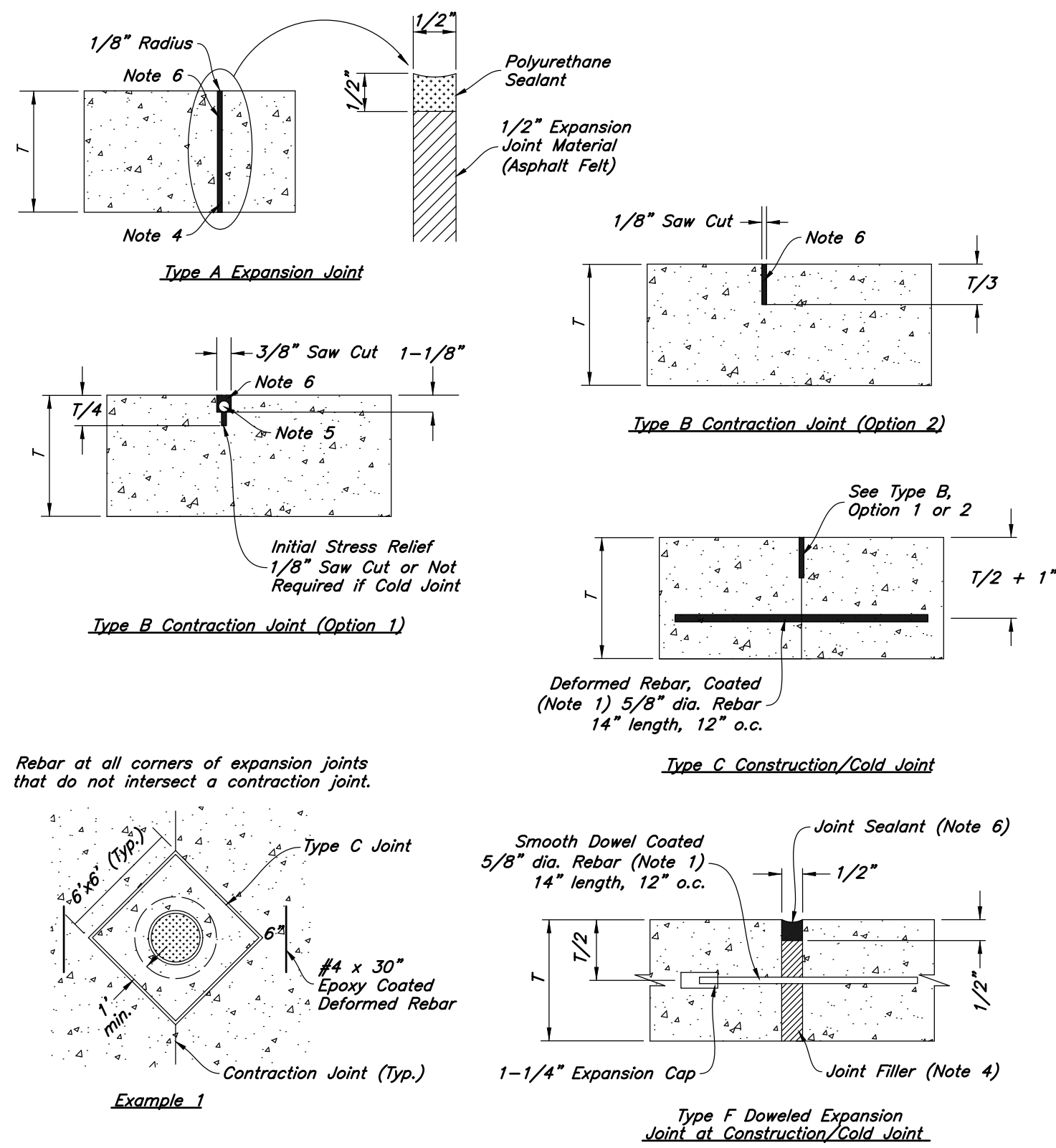


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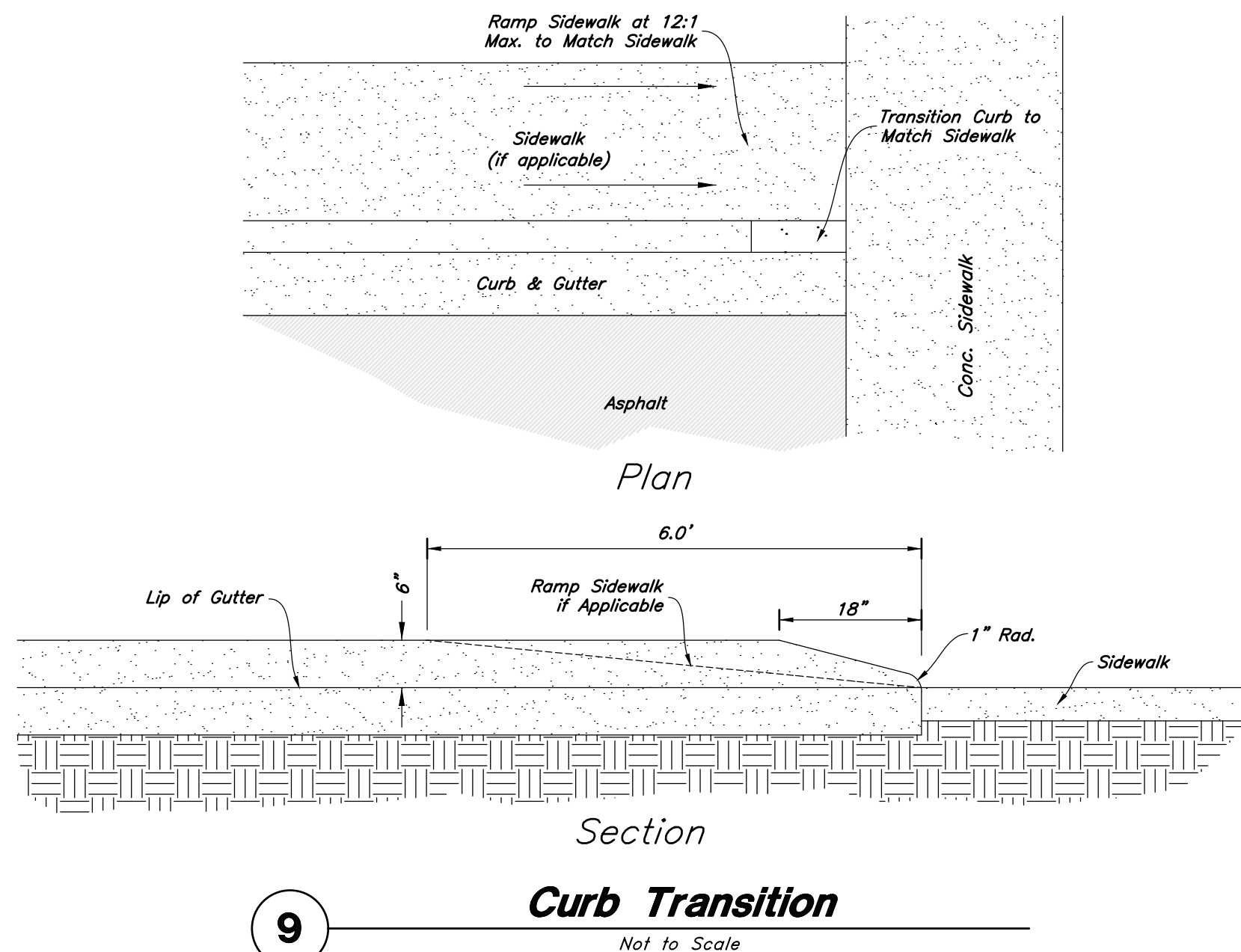
Utility Plan
Tommy's Carwash Santaquin
60 N 400 East
Santaquin, UT

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SHEET NO.
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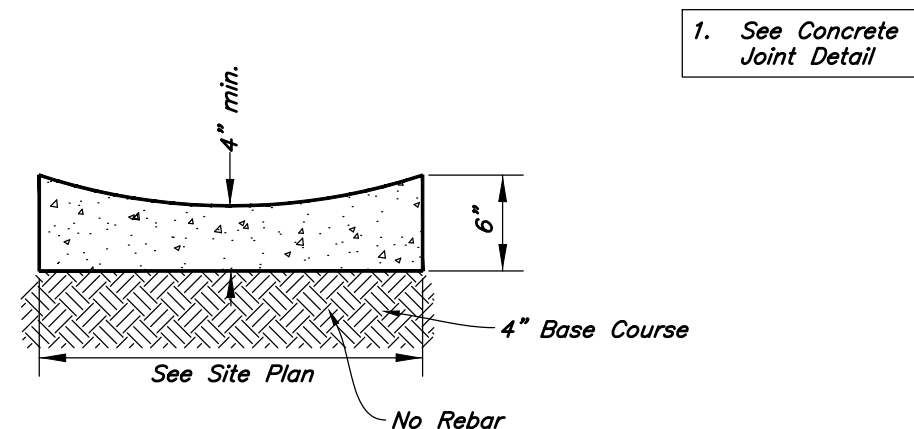
1. **REINFORCEMENT:** ASTM A 615, grade 60, galvanized or epoxy coated deformed steel rebar or smooth steel dowels with diameter and length as indicated.
- A. Space rebar and dowels at 12 to 15 inches on center.
B. Grease dowels to provide movement in expansion joints.
C. Keep tie bars in the vertical center of the concrete slab and perpendicular to the joint during concrete placement.
2. **SAWING:** Keep at least 3 working power saws on-site when concrete is being placed. Saw crack control joints (contraction joints) before shrinkage cracking takes place. Do not tear or ravel concrete during sawing. In cool weather, the joint sawing may be delayed only for the time required to prevent tearing and raveling the concrete. Cut joints to dimensions recommend by sealant manufacturer and approved by ENGINEER.
3. **JOINTS:** Lay out joints to aid construction and control random cracking.
- A. Joint Spacing shall be 12 feet maximum on center in both directions.
B. Extend transverse contraction joints continuously across the full width of the concrete. Make the joints coincide with curb and gutter joints.
C. Make adjustments in joint locations to meet inlet or manhole locations.
D. Expansion Joints shall be placed where concrete abuts a building wall, sidewalk, curb, gutter or any immovable structure.
4. **JOINT FILLER:** Bituminous (Asphalt or tar) mastic, ASTM D994. Formed and encased between 2 layers of bituminous saturated felt or 2 layers of glass-fiber felt extending to the bottom of the concrete slab.
5. **BACKER ROD:** Round Rods. It must be oversized approximately 25 percent to fit tightly into each joint and compatible with hot poured sealant.
6. **JOINT SEALANT:** Hot applied, Asphalt base type, ASTM D 3405. Remove dirt, oil, and curing compounds from joint reservoir. Seal joints immediately after cleaning.



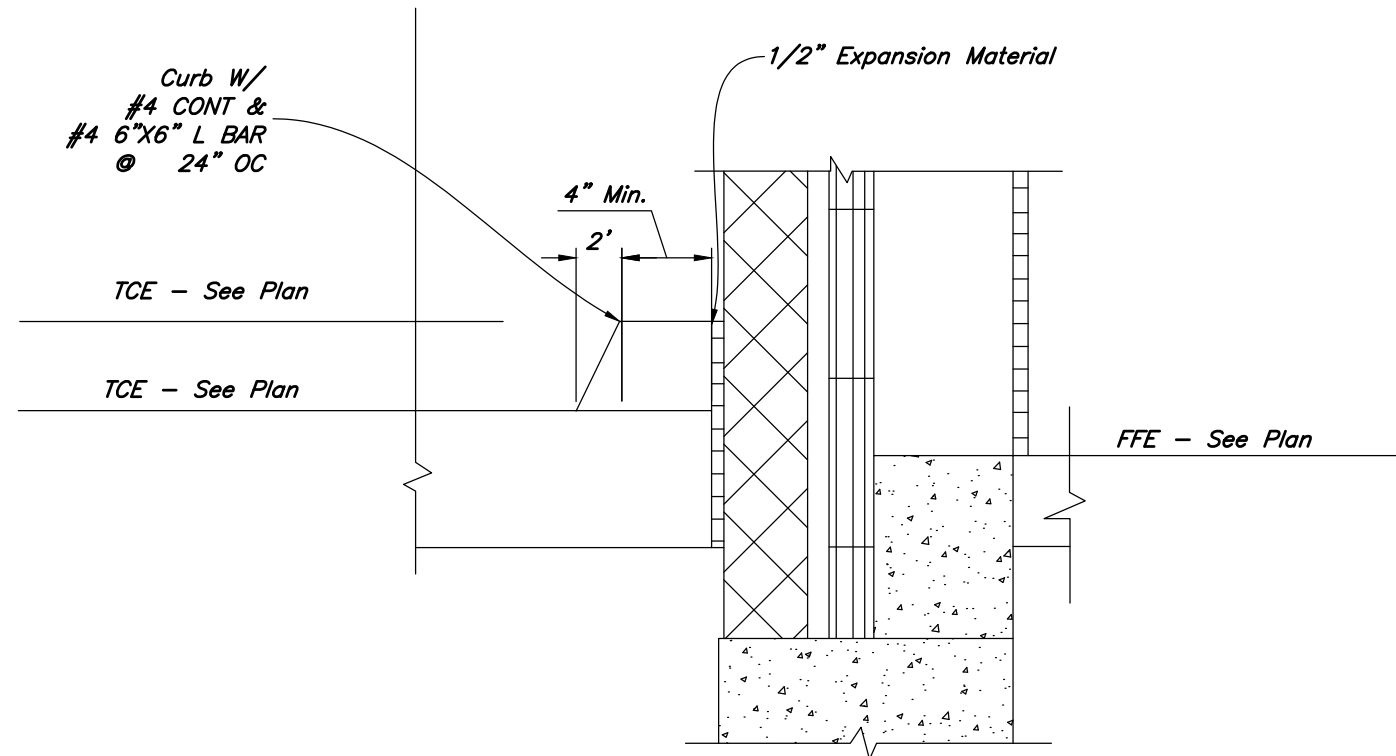
10 **Concrete Joint Detail**
Not to Scale



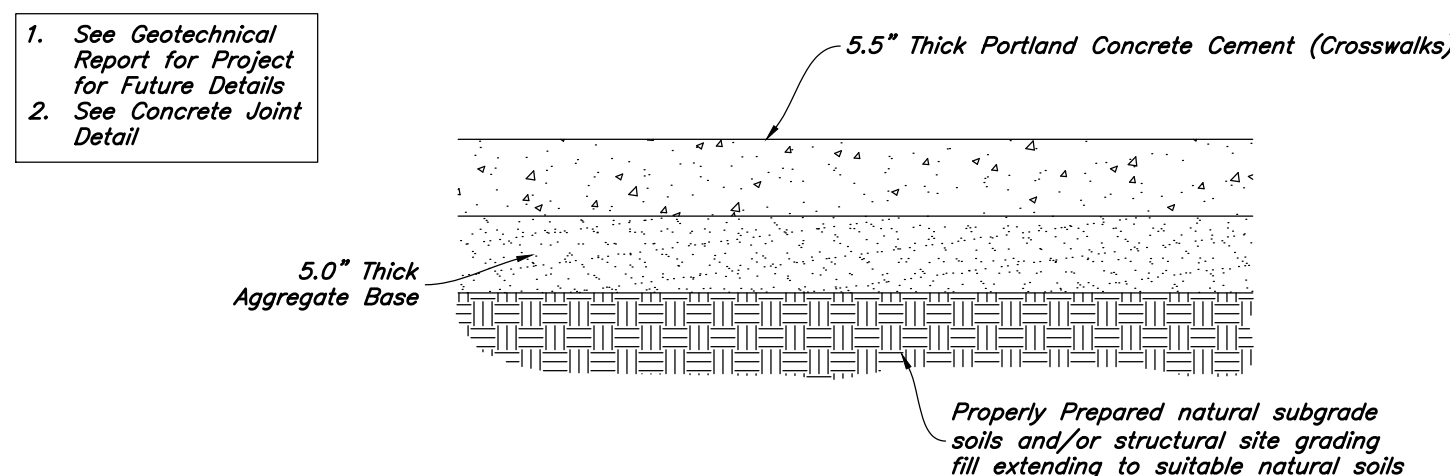
Contraction Joints
A. Spacing = 10' O.C.
B. 1/8" Wide by 2" Deep



8 **Typical Waterway Detail**
Not to Scale



7 **Tower A Curb Detail**
Not to Scale

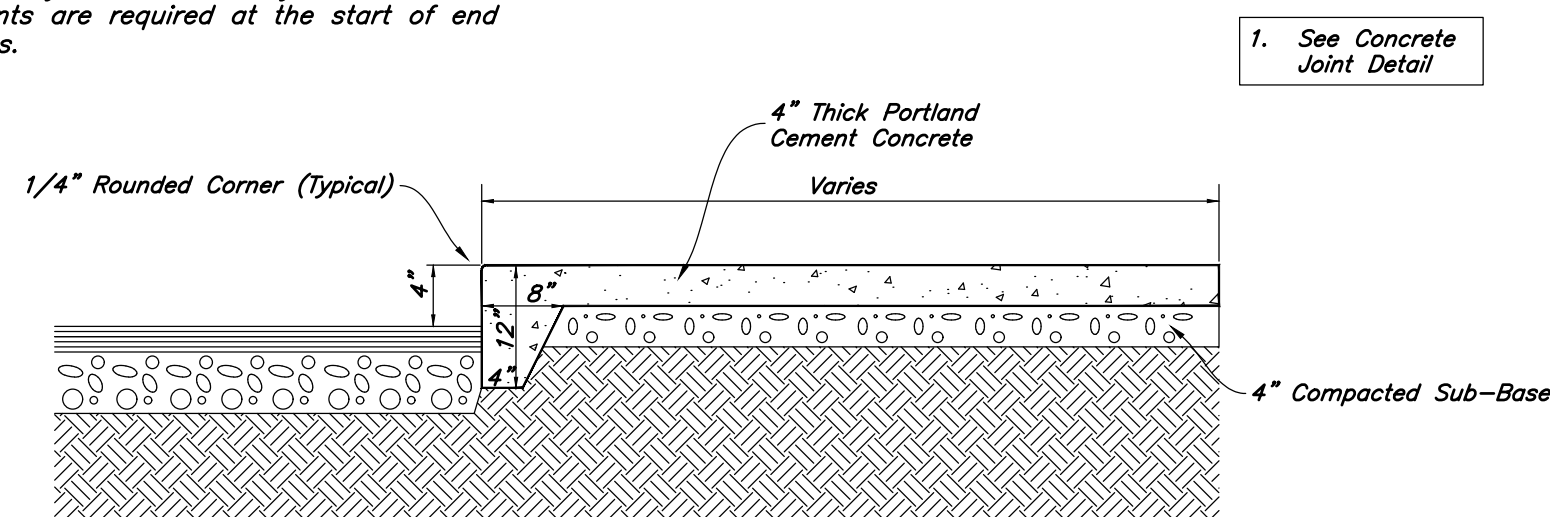


6 **Concrete Paving Section**
Not to Scale

Contraction Joints
A. Spacing = 10' O.C.

Expansion Joints

- A. Make expansion joints full depth, see joint detail
B. Place expansion joint at aa cold joints
C. Expansion joints are required at the start of end of curb radius.

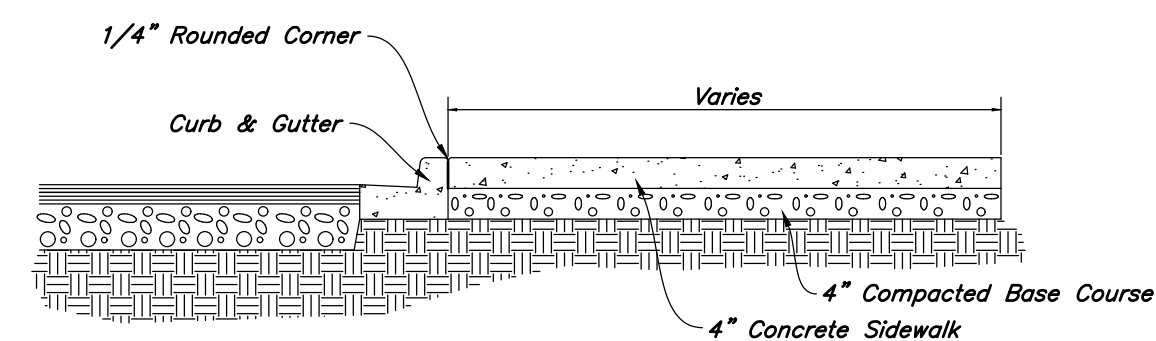


5 **Thickened Edge Walk**
Not to Scale

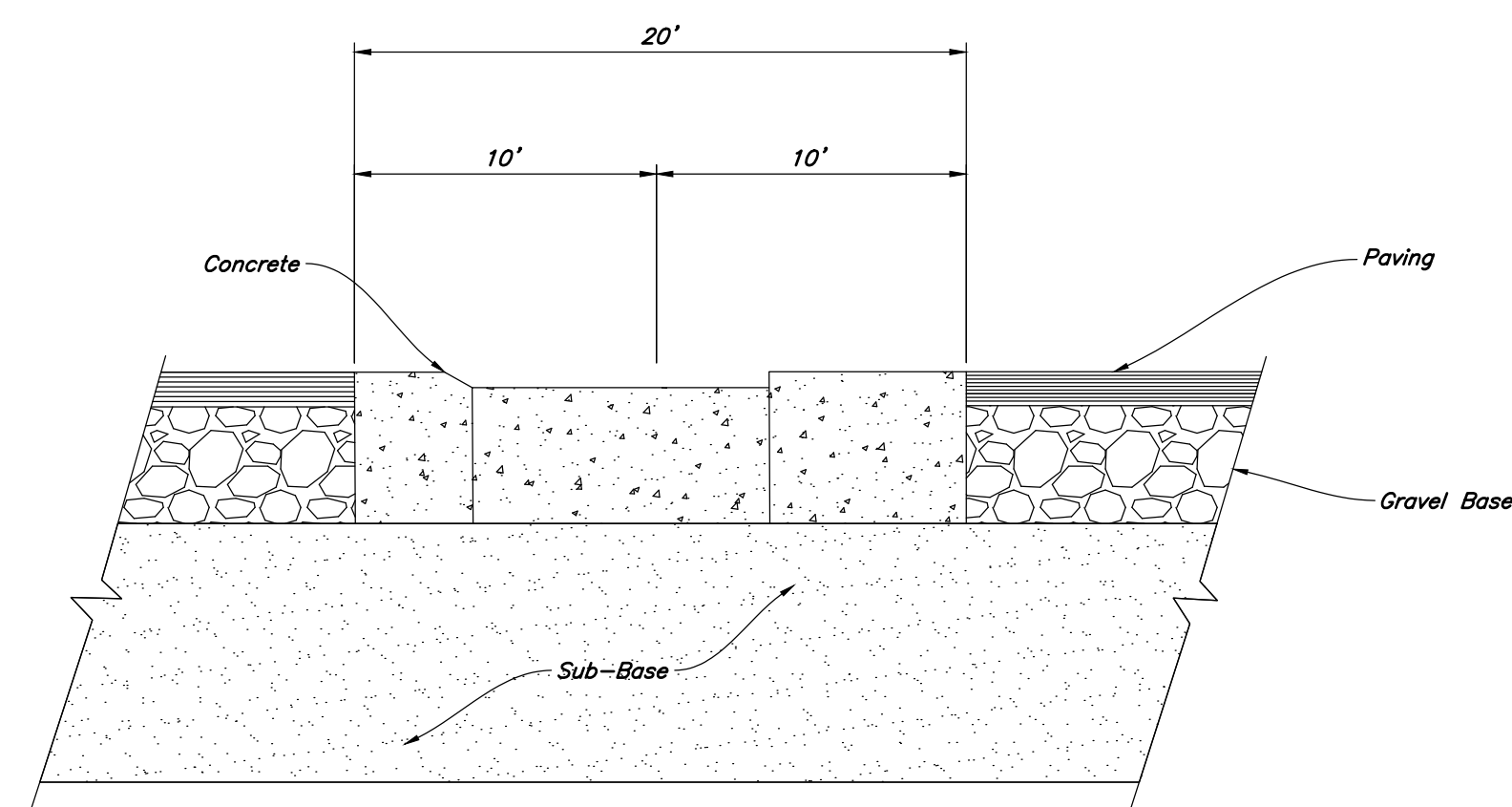
Contraction Joints
A. Spacing = 10' O.C.

Expansion Joints

- A. Make expansion joints full depth, see joint detail
B. Place expansion joint at aa cold joints
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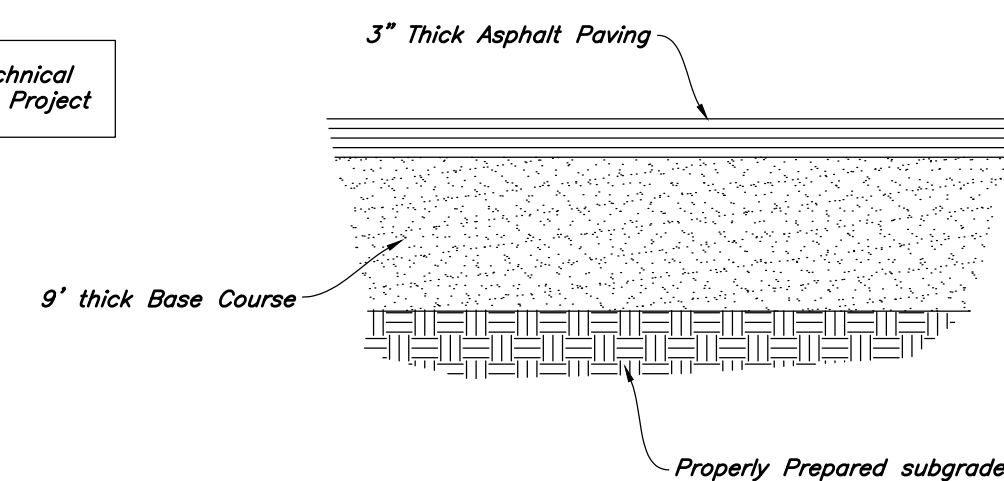


4 **Typical Sidewalk Detail**
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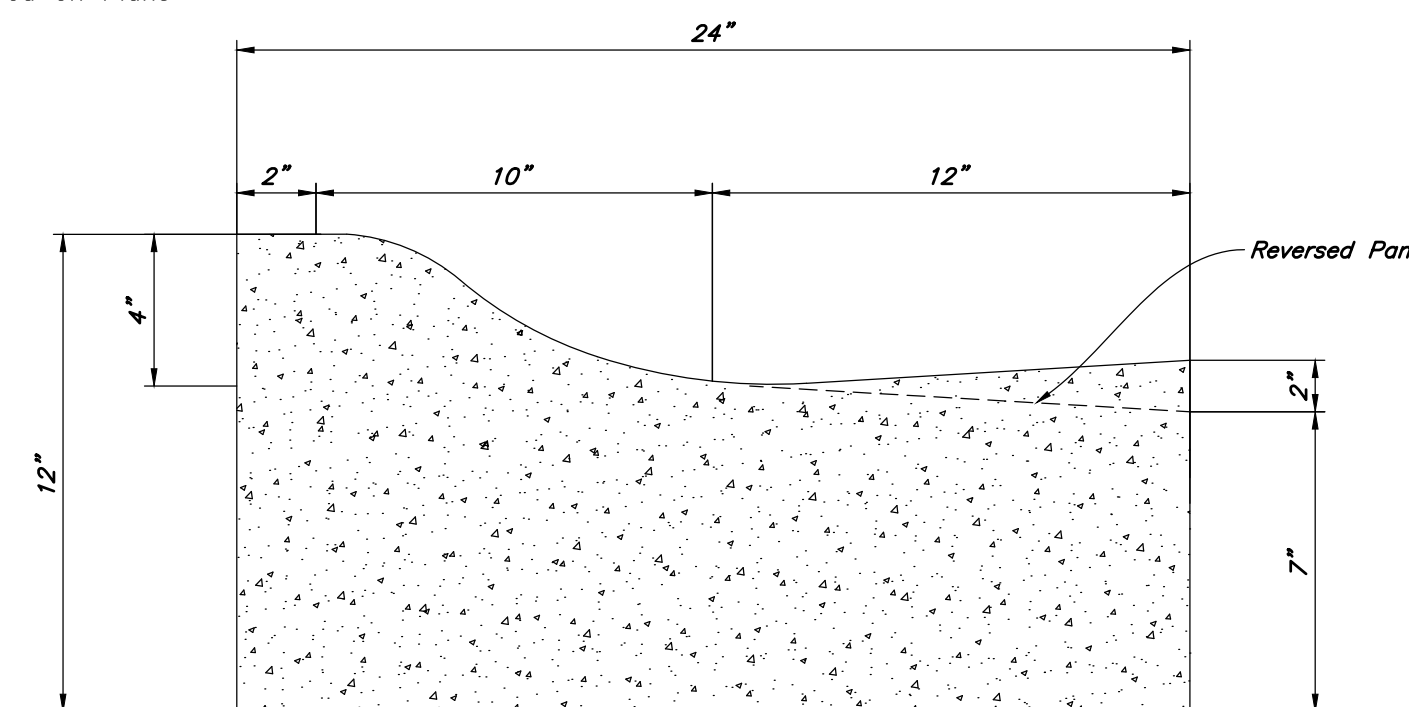
3 **Typical Gutter Pan Detail**
Not to Scale

1. See Geotechnical Report for Project



2 **Standard Asphalt Section**
Not to Scale

NOTE: Reverse Slope on Gutter Pan as Required on Plans



1 **Standard Roll Curb Detail**
Not to Scale

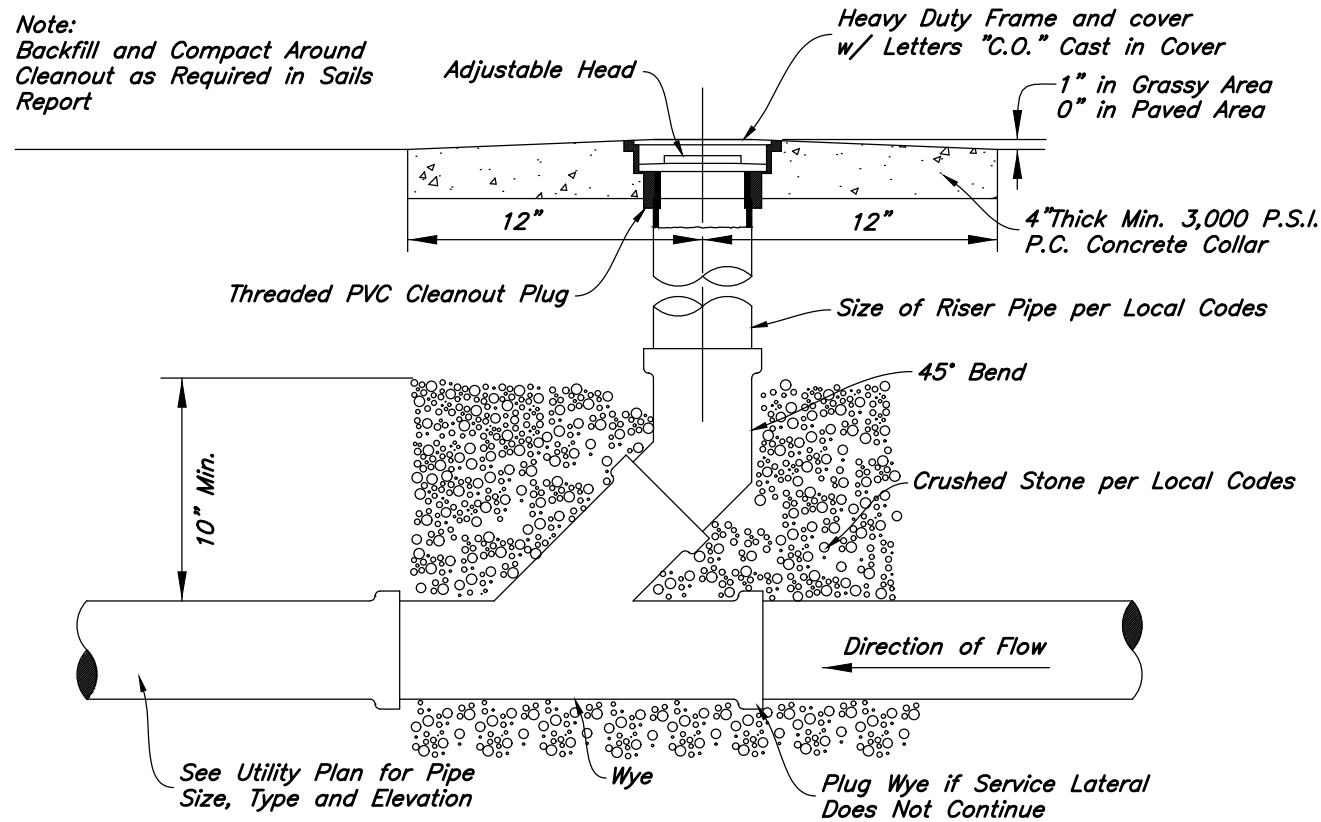
Designed by: SY - NN
Drafted by: NE
Client Name: Tommy's Carwash
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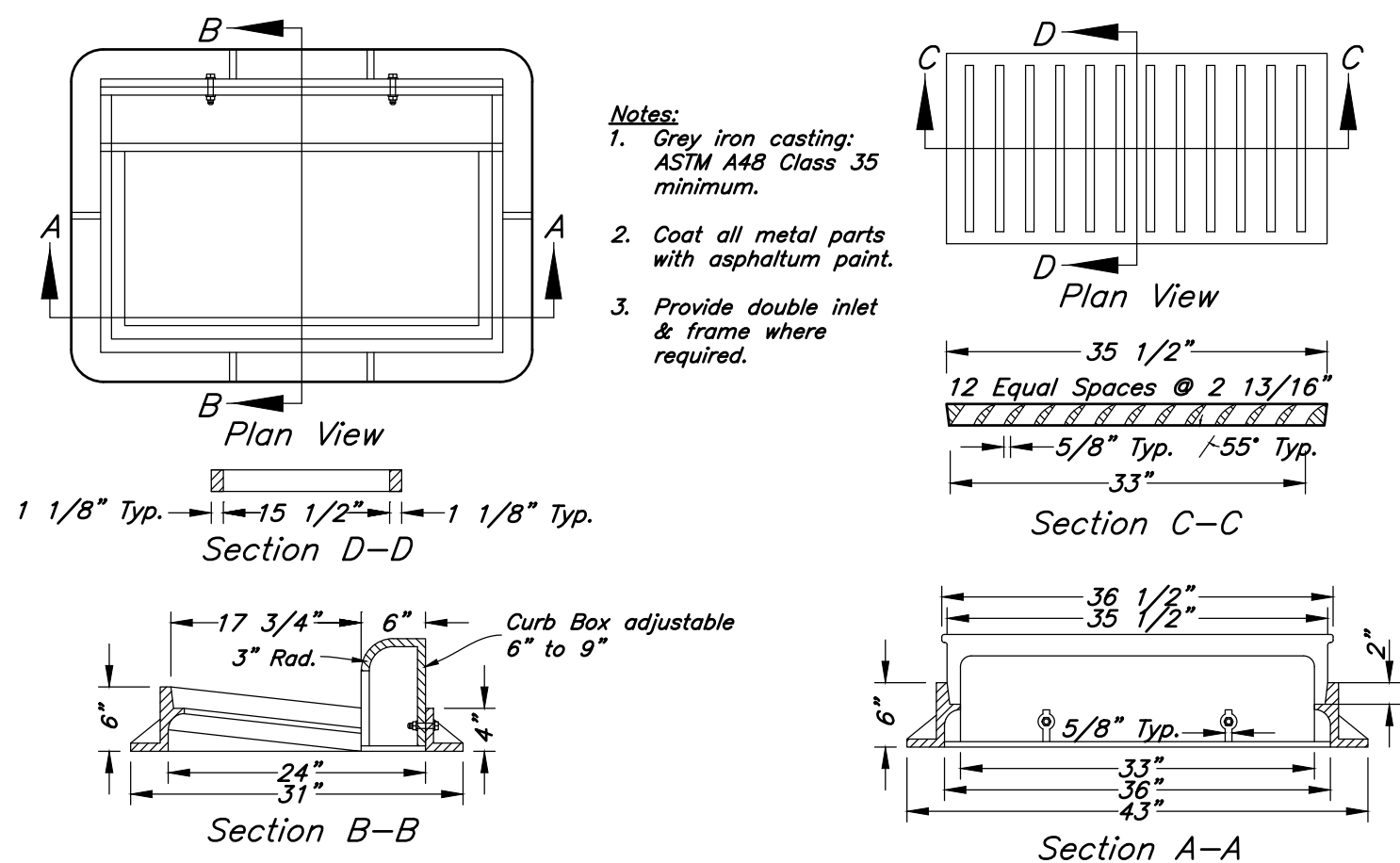
Details
Tommy's Carwash Santaquin
60 N 400 East
Santaquin, UT

REGISTERED PROFESSIONAL ENGINEER
No. 79131828
SHAUN N. YOUNG
6/24/21
STATE OF UTAH

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C4.1

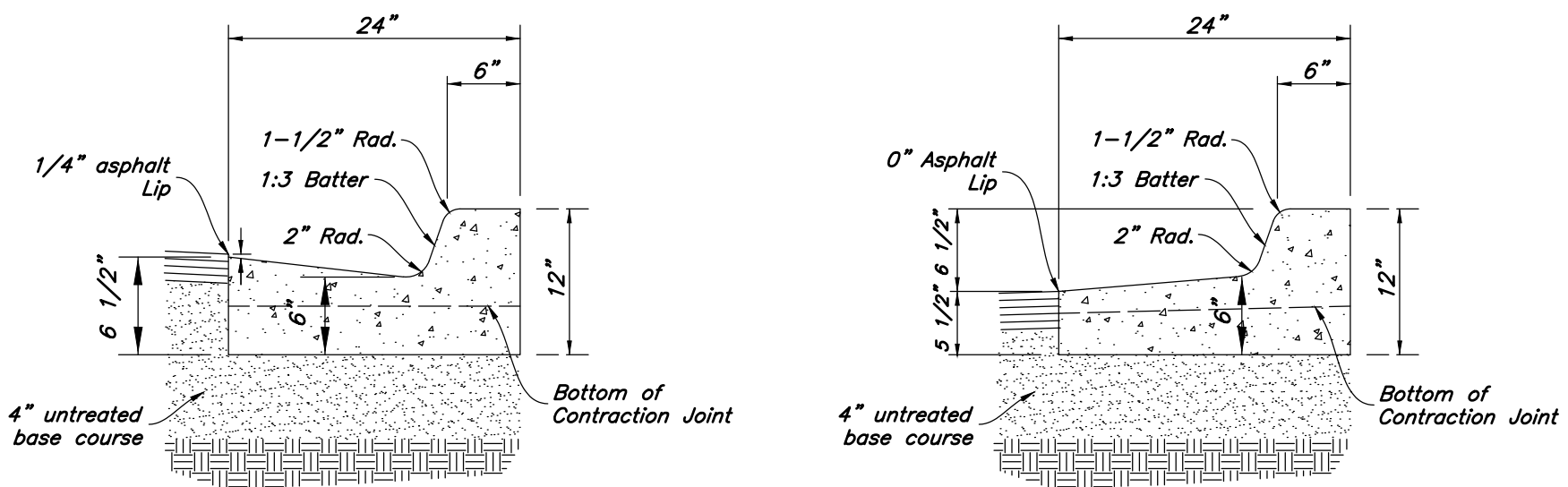


17 **Typical Cleanout Detail**
Not to Scale

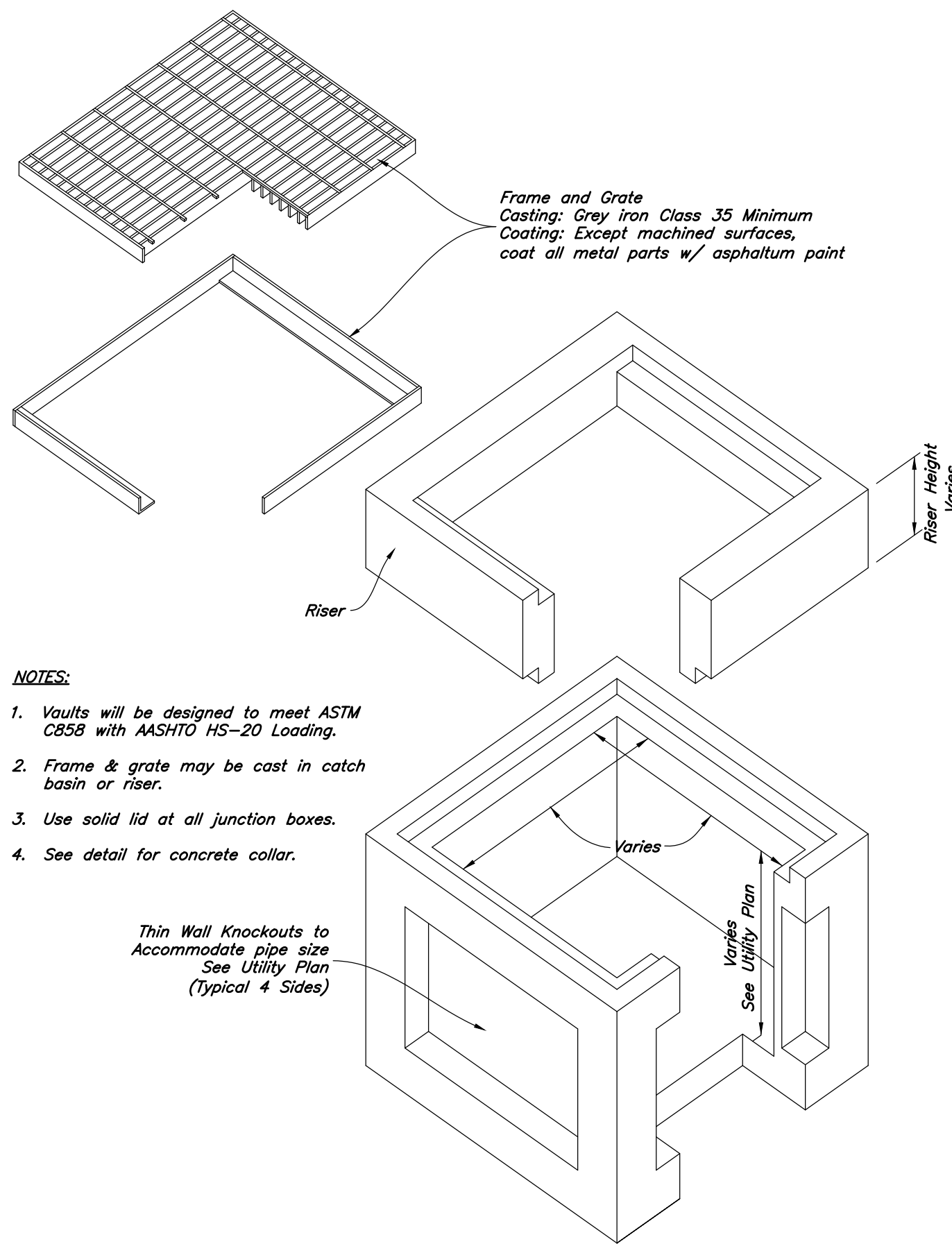


16 **Inlet Grate Frame**
Not to Scale

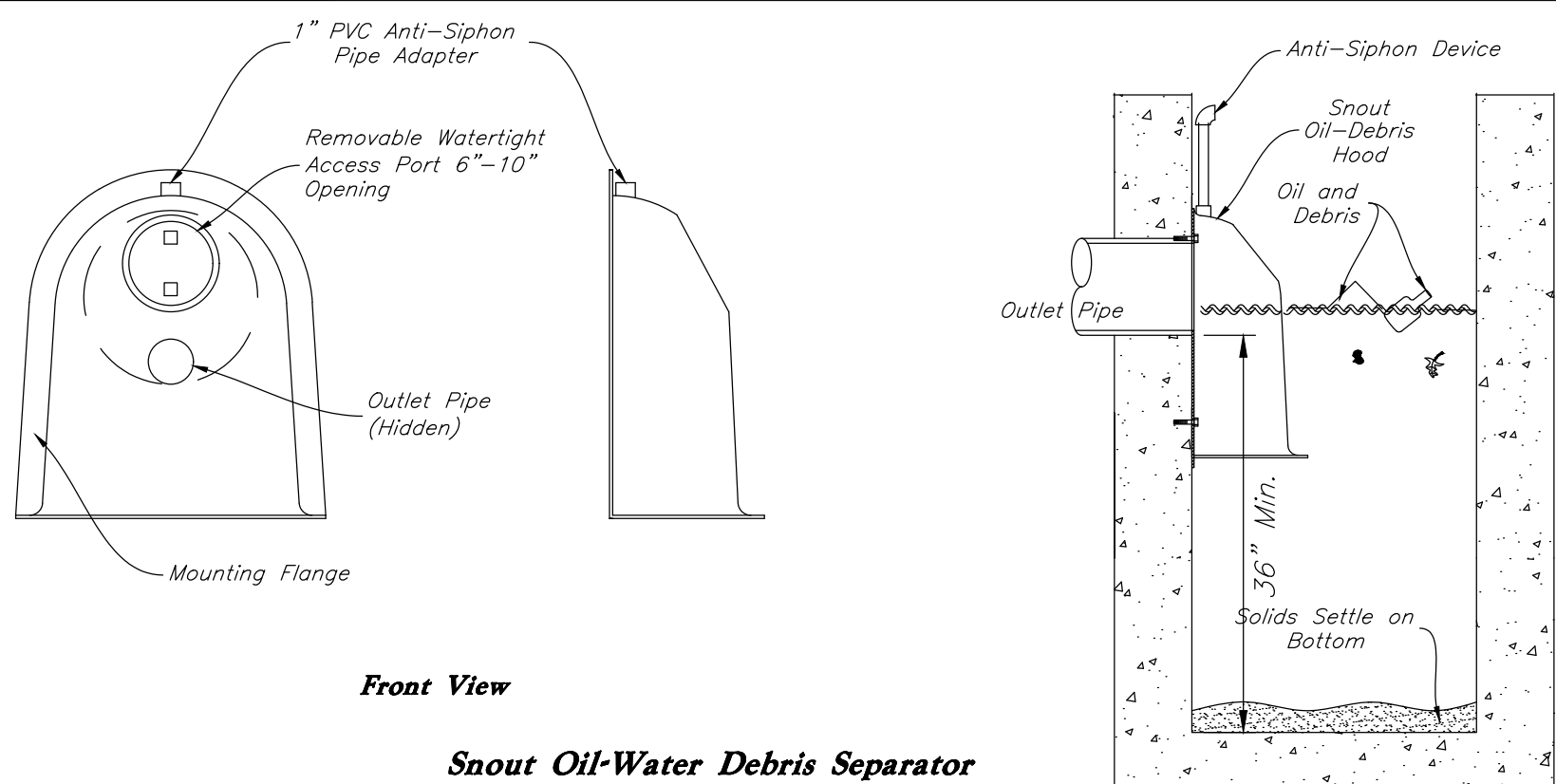
- Contraction Joints**
 - Spacing = 10' o.c., see joint detail
 - 1/8" wide by 2" deep from top of curb at 15'-0" intervals
- Expansion Joints**
 - Make expansion joints full depth, see joint detail
 - Place expansion joint at all cold joints
 - Expansion joints are required at ends of all radii 0.08.
 - Required 5'-0" on each side of drainage structures
 - Required at 90'-0" maximum intervals in straight curb and gutter
 - Provide #6 x 18" long smooth steel dowel bars with 1" dia. grease cap through expansion joints (3/4" thick bituminous filler material)
- 2'-6" Long tie bar on 2'-6" centers shall be provided when curb is adjacent to P.C.C. pavement
- Provide (2) #6 x 2'-6" long tie bars to connect existing and new curb and gutter
- Remove forms as early as possible. Brush top and face of curbs to remove all imperfections. Typical of all form work.
- All radii shall be true arcs
- Medium to light broom finish on all exterior concrete



15 **24" Curb And Gutter**
Not to Scale

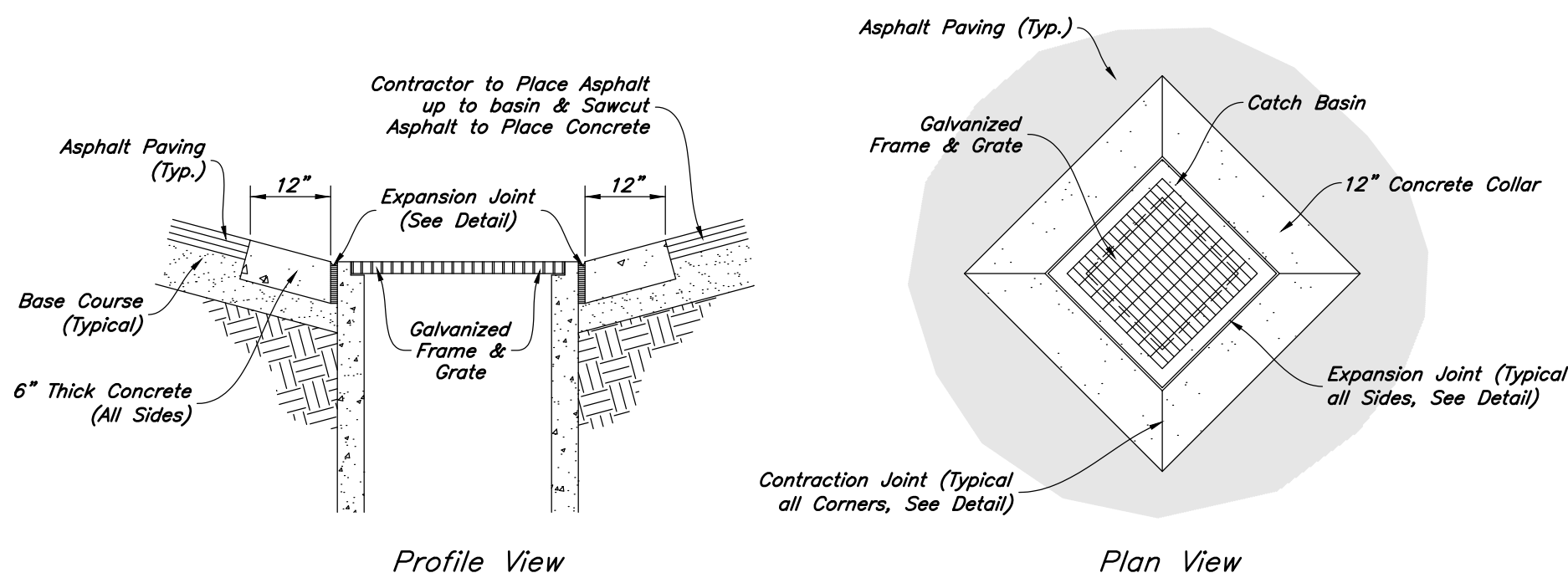


14 **Precast Catch Basin**
Not to Scale

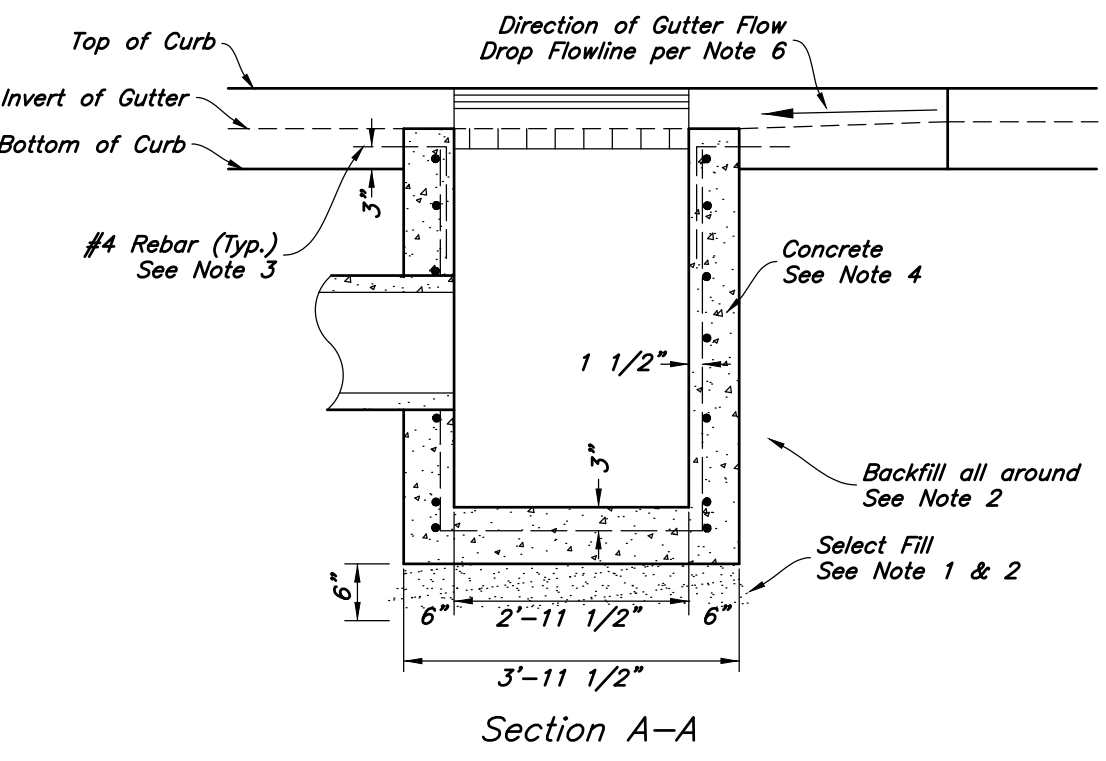
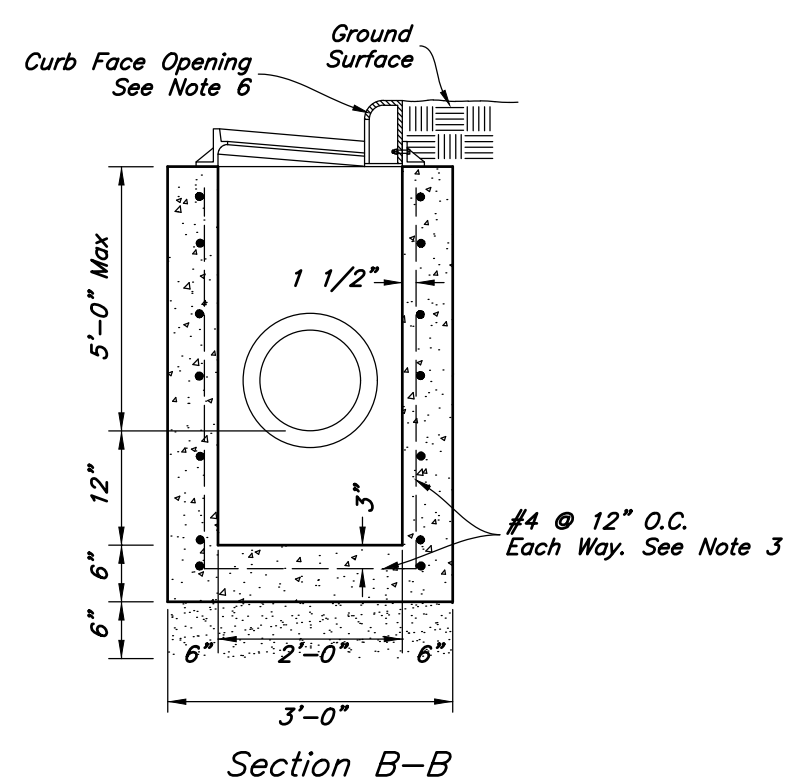


- Notes:**
- All hoods and traps for catch basins and water quality structures shall be as manufactured by:
Best Management Products, Inc.
53 Mt. Archer Rd.
Iyme, CT 06371
(860) 434-0277, (860) 434-3195 fax
toll free: (800) 504-8008 or (888) 354-7585
web site: www.bestmp.com
or pre-approved equl
 - All hoods shall be constructed of a glass reinforced resin composite with iso gel coat exterior finish with a minimum 0.125" laminate thickness.
 - All hoods shall be equipped with a watertight access port, a mounting flange, and an anti-siphon vent as drawn. (see configuration detail)
 - The size and position of the hood shall be determined by outlet pipe size as per manufacturer's recommendation.
 - The bottom of the hood shall extend downward a distance equal to 1/2 the outlet pipe diameter with a minimum distance of 6" for pipes < 12" I.D.
 - The anti-siphon vent shall extend above hood by minimum of 3" and a maximum of 24" according to structure configuration.
 - The surface of the structure where the hood is mounted shall be finished smooth and free of loose material.
 - The hood shall be securely attached to structure wall with 3/8" stainless steel bolts and oil-resistant gasket as supplied by manufacturer. (see installation detail)
 - Installation instructions shall be furnished with manufacturer supplied installation kit.
installation kit shall include:
a. installation instructions
b. pvc anti-siphon vent pipe and adapter
c. oil-resistant crushed cell foam gasket with psa backing
d. 3/8" stainless steel bolts
e. anchor shields

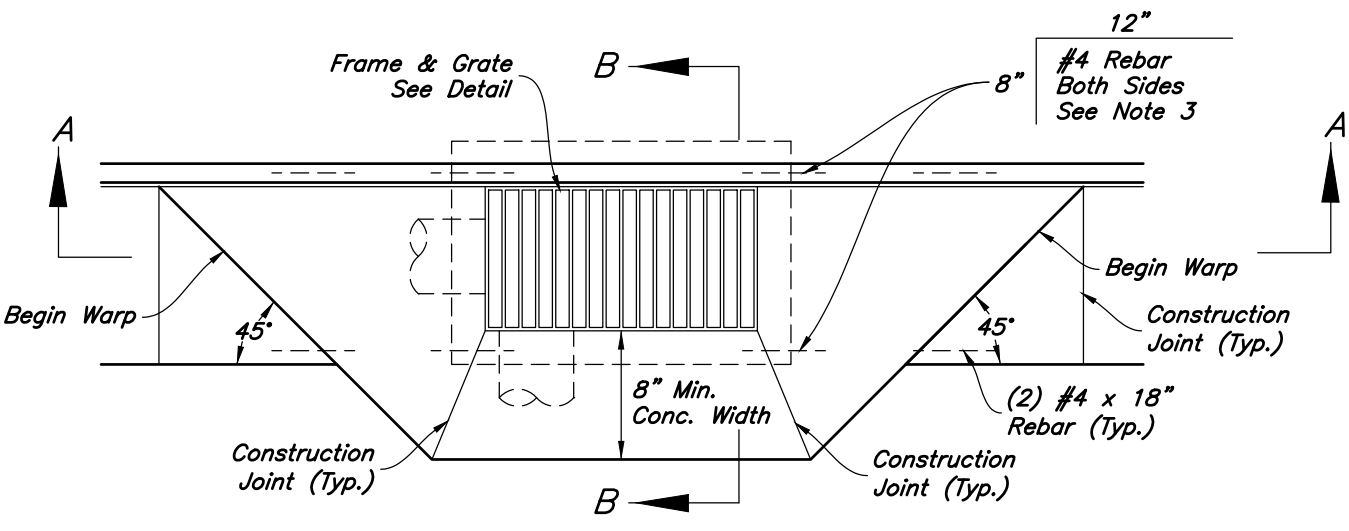
13 **Typical Snout Detail**
Not to Scale



12 **Concrete Collar Detail**
Not to Scale



- Catch Basin Notes:**
- Select Fill: Use untreated base course grade 1 or grade 3/4 per APWA Section 02060. Use of sewer rock or recycled aggregate requires Engineers written approval.
 - Backfill: Install and compact all backfill material or APWA Section 02321.
 - Reinforcement: Use ASTM A 615, grade 60 deformed steel rebar. See APWA Section 03200.
 - Concrete: Class 4,000 per APWA Section 03304. Place per APWA Section 03310. Apply a sealing / curing compound per APWA Section 03390 or use an acceptable alternate curing method.
 - Pipe Laterals: The drawing shows alternate connections to the curb outlet. Refer to construction drawings for connection locations.
 - Curb Face Opening: Make opening 4 inches high. Provide at least a 2 inch drop from the gutter flowline to the invert of the curb face opening.
 - Conc. Apron in front of Inlet Grate to be 8" min. & 12" max.



11 **Curb Inlet with Single Grate**
Not to Scale

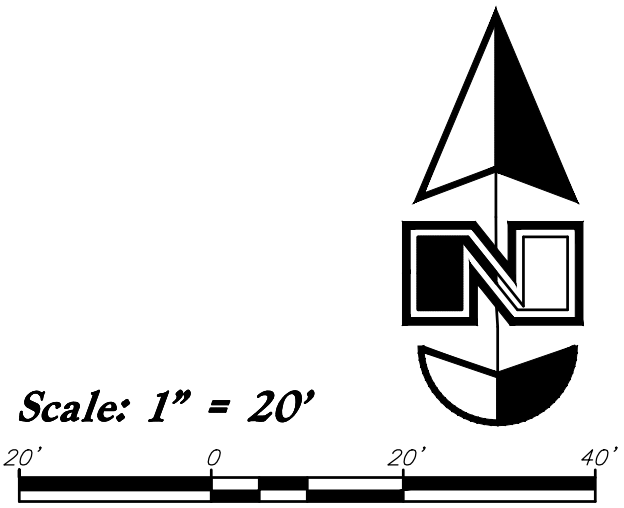
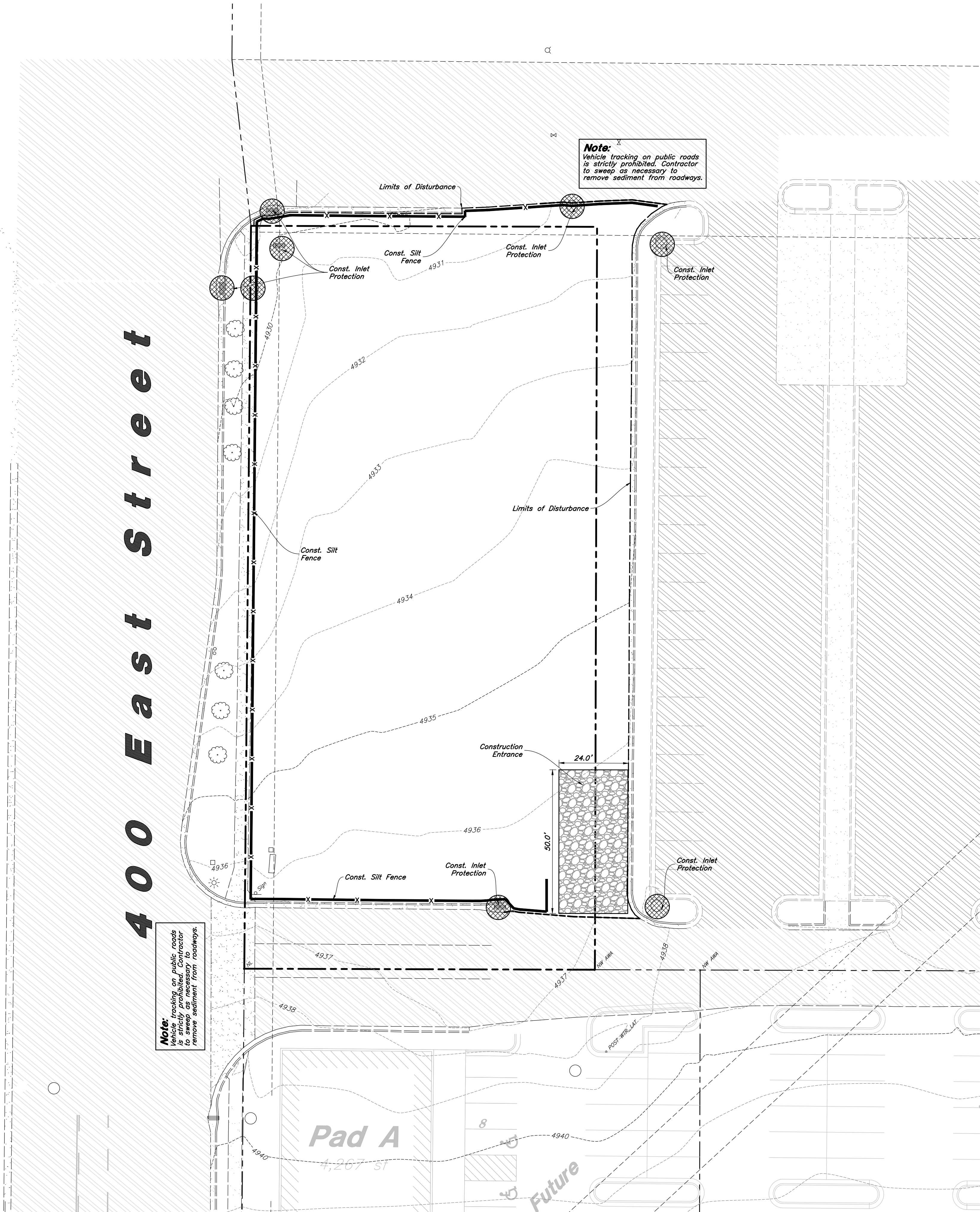
Designed by: SY - NN
Drafted by: NE
Client Name:
Tommy's Carwash
21-080 DT

ANDERSON WAHLEN & ASSOCIATES
2010 North Redwood Road, Salt Lake City, Utah 84116
(801) 521-8529 - awhengineering.net

Details
Tommy's Carwash Santaquin
60 N 400 East
Santaquin, UT

REGISTERED PROFESSIONAL ENGINEER
No. 719183
SHAUN W. YOUNG
6/24/21
STATE OF UTAH

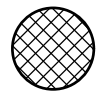
17 Jun, 2021
SHEET NO.
C4.2



Legend

Place Inlet Protection at all Inlet Locations to prevent boxes from silting.

Silt Fence



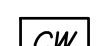
Limit of Disturbance



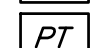
Construction Entrance / Truck Wash (50'x24' Min.)



Concrete Washout Area



Portable Toilet



Gravel Sock



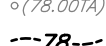
Existing Contour



Existing Spot



Proposed Contour



Erosion Control Notes

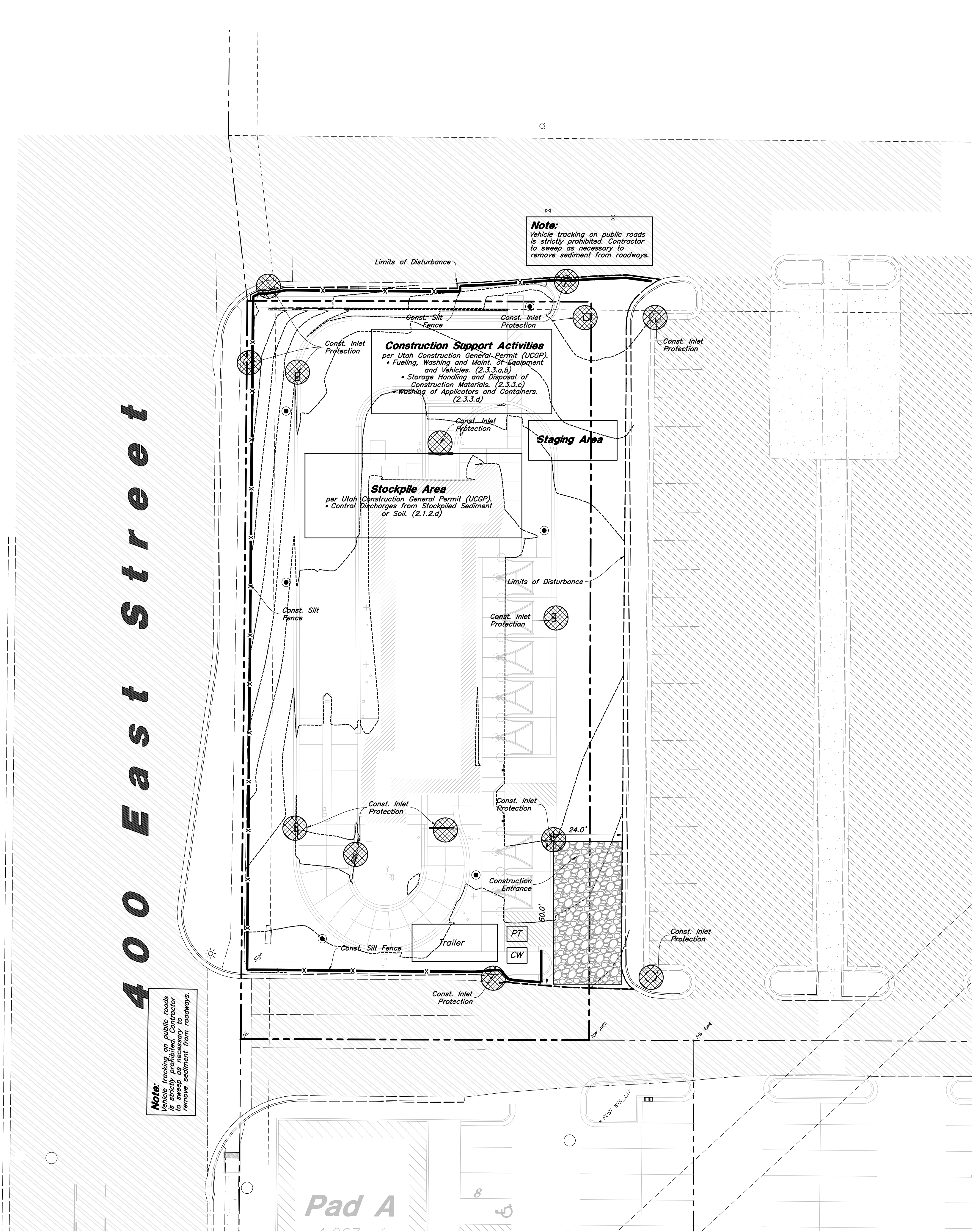
- Storm water will be discharged into an existing drainage system. Existing Lines shall be inspected prior to Certificate of Occupancy and cleaned if necessary.
- The Storm Water Prevention Plan shall conform to all State Division of Environmental Protection Regulations.
- All Construction equipment will enter thru Designated Construction Entrances.
- Coordinate Entrance locations with the local jurisdiction.
- Inlet Protection Devices and Barriers shall be Repaired or Replaced if they Show Signs of Undermining or Deterioration.
- Silt Fences shall be Repaired to their Original Conditions if Damaged. Sediment shall be Removed from Silt Fences when it Reaches one-half the Height of the Silt Fence.
- The Construction Entrances shall be Maintained in a Condition which will Prevent Tracking or Flow of Mud onto Public Right-of-Way. This may Require Periodic Top Dressing of the Construction Entrances as Conditions Demand.
- All Materials Spilled, Dropped, Washed or Tracked from Vehicles onto Roadways or into Storm Drains must be Removed Immediately.
- Due to the Grade Changes During the Development of the Project, the Contractor shall be Responsible for Adjusting the Erosion Control Measures (Silt Fences, Inlet Protection, Etc...) to Prevent Erosion.
- Contractor shall use Vehicle Tracking Control at all Locations where Vehicles will Enter or Exit the Site. Control Facilities will be Maintained while Construction is in Progress, Moved when Necessary and Removed when the Site is Paved.
- Inlet Protection Devices shall be Installed Immediately upon Individual Inlets becoming Functional.
- This Document is Fluid Allowing for Changes, Modifications, Updates and Alternatives. It is the Responsibility of the Contractor to Keep Record of all Alterations made to the Erosion Control Measures Implemented for the Project on this Plan and in the Storm Water Pollution Prevention Plan.
- Cover Exposed stockpiles of soils, construction and landscaping materials with heavy plastic sheeting.
- Re-vegetate areas where landscaping has died or not taken hold.
- Divert storm water runoff around disturbed soils with berms or dirt swales.
- Contractor to provide permanent stabilization to any areas disturbed by construction by hydroseeding native vegetation (if not otherwise stabilized).
- Contractor is responsible for obtaining a fugitive dust control permit through the Division of Air Quality. All responsibilities relating to the production of the dust control plan shall be the responsibility of the Contractor.

ANDERSON WAHLEN & ASSOCIATES
2010 North Redwood Road, Salt Lake City, Utah 84116
(801) 321-8529 - www.aengineering.net

Erosion Control Plan - Phase 1
Tommy's Carwash Santaquin
60 N 400 East
Santaquin, UT

REGISTERED PROFESSIONAL ENGINEER
Shaun M. Young
No. 791285
SHAUN M. YOUNG
6/24/21
STATE OF UTAH

17 Jun, 2021
SHEET NO.
C5.1



Legend

Place Inlet Protection at all Inlet Locations to prevent boxes from silting.

Silt Fence

Limit of Disturbance

Construction Entrance / Truck Wash (50'x24' Min.)

Concrete Washout Area

Portable Toilet

Gravel Sock

Existing Contour

Existing Spot

Proposed Contour

Erosion Control Notes

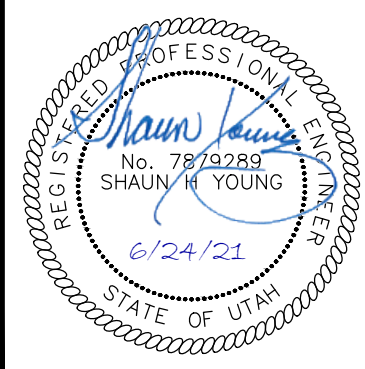
- Storm water will be discharged into an existing drainage system. Existing Lines shall be inspected prior to Certificate of Occupancy and cleaned if necessary.
- The Storm Water Prevention Plan shall conform to all State Division of Environmental Protection Regulations.
- All Construction equipment will enter thru Designated Construction Entrances.
- Coordinate Entrance locations with the local jurisdiction.
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- The Construction Entrances shall be Maintained in a Condition which will Prevent Tracking or Flow of Mud onto Public Right-of-Way. This may Require Periodic Top Dressing of the Construction Entrances as Conditions Demand.
- All Materials Spilled, Dropped, Washed or Tracked from Vehicles onto Roadways or into Storm Drains must be Removed Immediately.
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- This Document is Fluid Allowing for Changes, Modifications, Updates and Alternatives. It is the Responsibility of the Contractor to Keep Record of all Alterations made to the Erosion Control Measures Implemented for the Project on this Plan and in the Storm Water Pollution Prevention Plan.
- Cover Exposed stockpiles of soils, construction and landscaping materials with heavy plastic sheeting.
- Re-vegetate areas where landscaping has died or not taken hold.
- Divert storm water runoff around disturbed soils with berms or dirt swales.
- Contractor to provide permanent stabilization to any areas disturbed by construction by hydroseeding native vegetation (if not otherwise stabilized).
- Contractor is responsible for obtaining a fugitive dust control permit through the Division of Air Quality. All responsibilities relating to the production of the dust control plan shall be the responsibility of the Contractor.

Erosion Control Plan - Phase 2

Tommy's Carwash Santaquin

60 N 400 East

Santaquin, UT

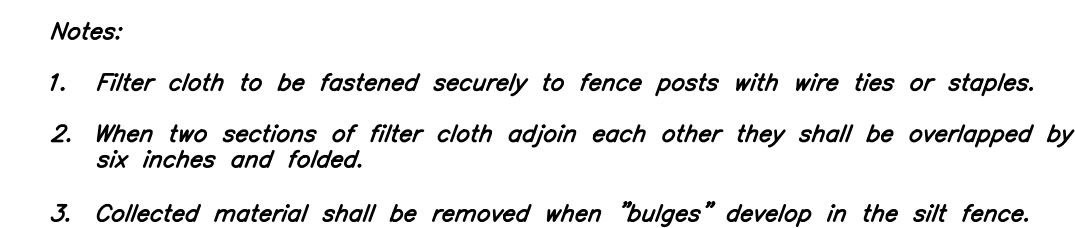


17 Jun, 2021

SHEET NO.

C5.2

6 *Not Used*
Not to Scale



1. Filter cloth to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Collected material shall be removed when "bulges" develop in the silt fence.

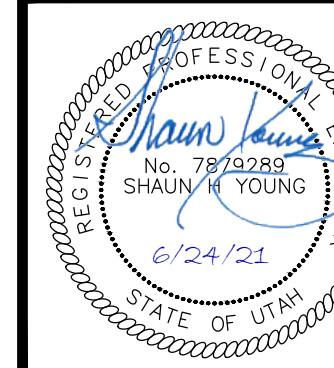
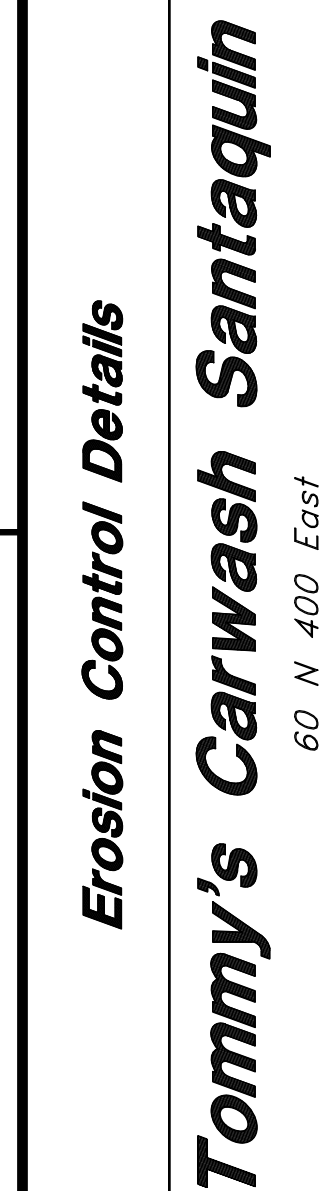
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2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Collected material shall be removed when "bulges" develop in the silt fence.

3. Collected material shall be removed when "bulges" develop in the silt fence.

3 *Silt Fence Section*
Not to Scale

Tommy's Carwash

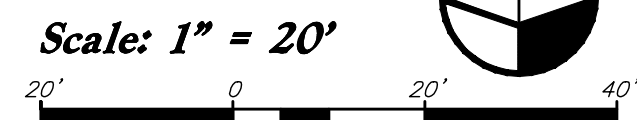
21-080 EC2



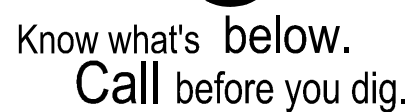
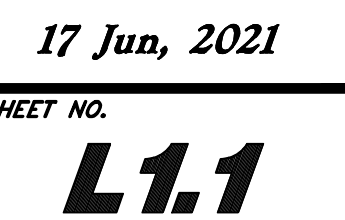
SHEET NO.

C5.3

18. Prior to placement of topsoil in all landscaping areas, all subgrade areas shall be loosened by scarifying the soil to a depth of 6 inches in order to create a transition layer between existing and new soils.
19. Provide a 12" depth of imported topsoil in parking islands and an 8 inch depth in all other shrub areas.
20. All plant material holes shall be dug twice the diameter of the rootball and 6 inches deeper. Excavated material shall be removed from the site and replaced with plant backfill mixture. The top of the root balls, shall be planted flush with the finish grade.
21. Plant backfill mix shall be composed of 3 parts topsoil to 1 part soil pep, and shall be mixed at the planting hole. Deep water all plant material immediately after planting. Add backfill mixture to depressions as needed.
22. All new plants to be balled and burlapped or container grown, unless otherwise noted on plant schedule. Container grown trees shall have the container cut and removed. Trees in ball and burlap shall have the straps, burlap or plastic cut and pulled away from the trunk exposing 1/3 of the root ball. For trees in wire baskets, cut and remove the wire basket.
23. Upon completion of planting operations, all landscape areas with trees, shrubs, and perennials, shall receive specified stone over Densit Pro5 Weed Barrier. Stone shall be evenly spread on a carefully prepared grade free of weeds. The top of stone should be slightly below finish grade and concrete areas.
24. All deciduous trees shall be double staked per tree staking detail. It is the contractors responsibility to remove tree staking in a timely manner once staked trees have taken root. Deciduous tree ties to be V.I.T. Cinche Ties #ICT32.
25. Install landscape concrete curbing between lawn and shrub areas. Curbing shall be installed level and uniform and match all top finish grades of concrete walks and curbs. See landscape concrete curbing detail.
26. Provide a 4 inch depth of imported topsoil in all lawn areas.
27. Sod must be premium quality, evenly cut, established, healthy, weed and disease free, and from approved source.
28. All lawn areas to have uniform grades by float raking. Prior to laying sod, apply a starter fertilizer at a rate recommended by the manufacturer. Sod must be laid with no gaps between pieces on a carefully prepared topsoil layer. Sod to be slightly below finish grade and concrete curbing. Areas of sod that must be immediately watered after installation, dry burned areas will require replacement. Adjust sprinkler system to assure healthy green survival of the sod without water waste.
29. The contractor shall comply with all warranties and guarantees set forth by the Owner, and in no case shall that period be less than one year following the date of completion and final acceptance.



- 1 Install New Lawn
- 2 Install Landscape Concrete Curbing
- 3 Retaining Wall – See Civil Plan
- 4 Install Shrub Planter with Decorative Stone and Weed Barrier
- 5 Existing Irrigation Water Meter and Connection – See Irrigation Plan for More Detail
- 6 3' High Evergreen Planting Screen for Drive Thru
- 7 Car Wash Signage by Separate Permit; Adjust Plant Material as Needed to not Block Signage
- 8 Car Wash Monument Sign by Separate Permit
- 9 Existing Street Tree (7 qb), and Understory Lawn to be Protected; Lawn Damaged Due to Construction Shall be Replaced
- 10 Install Landscape Boulder
- 11 Elect. Transformer with Plant Screening
- 12 New Light Pole – See Site Elect. Plan



Sprayheads / Rotors

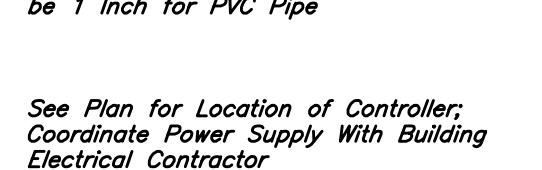
P.O.C. Components

Pipes

Controller & Accessories

Sleeving

Provide for Irr. Mainlines, Laterals, and Controller Wire Located Under Concrete and Asphalt Paving at Specified Depths

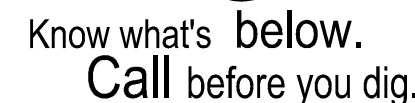


VALVE STATION	VALVE SIZE	IRRIGATION TYPE	FLOW (GPM)	PSI	PSI @ POC	PRECIP. RATE
1	1"	Area for Drip Emitters	4.20	33.52	33.52	0.51 in/h
2	1-1/2"	Turf Spray	16.35	34.28	35.19	2.63 in/h
3	1-1/2"	Turf Spray	14.86	34.16	35.07	2.43 in/h
4	1"	Area for Drip Emitters	5.86	35.56	35.77	0.77 in/h
5	1-1/2"	Turf Spray	16.34	34.33	35.84	2.44 in/h
6	1-1/2"	Turf Spray	15.33	34.25	35.97	2.52 in/h
7*	1-1/2"	Turf Spray	15.13	34.59	35.74	2.07 in/h
8*	1-1/2"	Turf Spray	14.48	34.42	35.54	1.77 in/h
9*	1-1/2"	Turf Spray	14.19	34.31	35.94	1.56 in/h

1. Prior to construction, the contractor shall be responsible for locating all underground utilities and shall avoid damage to all utilities during the course of the work. It shall be the responsibility of the contractor to protect all utility lines during the construction process and to repair any and all damage to utilities, structures, site appearances, etc., which occurs as a result of the landscape construction.
2. The irrigation contractor shall examine the site conditions under which the work is to be performed and notify the general contractor in writing of unsatisfactory conditions. Do not proceed until conditions have been corrected.
3. The contractor shall provide all materials, labor and equipment required for the proper completion of all irrigation work as specified and shown on the drawings.
4. See civil and architectural drawings for all structures, hardscape, grading, and drainage information.
5. Contractor safety and cleanup must meet OSHA standards at all times. All contractors must have adequate liability, personnel injury and property damage insurance. Clean-up must be performed daily, and all hardscape areas must be washed free of dirt and mud on final cleanup. Construction must occur in a timely manner.
6. The Owner/Landscape Architect has the right to reject any and all irrigation material not conforming to the plans and specifications.
7. The contractor shall install all irrigation material per plan, notes and details.
8. Irrigation system components must be premium quality only and installed to manufacturers requirements and specifications. The contractor is responsible for checking state and local laws for all specified materials and workmanship. Substitutions must be approved by the landscape architect. Materials and maintenance personnel must be instructed manual and all products data to operate, check, winterize, repair, and adjust system.
9. Irrigation system guarantee for all materials and workmanship shall be one year from the time of store opening or final project acceptance (whichever is longer). Guarantee shall include but is not limited to: system activation, repair, trench setting, backfilling depressions, and repairing freeze damage.
10. Irrigation system check must be done before the system is backfilled. Irrigation mainline and each control valve section must be flushed and pressure checked. Assure the complete system has no documented problems and full head to head coverage with adequate pressure for system operation. Adjust system to avoid spray on building, hardscape and adjacent property. Any problems or plan discrepancies must be reported to the landscape architect.
11. Irrigation laterals must be schedule 40 P.V.C. with schedule 40 fittings, one (1) inch minimum size. Solvent weld all joints as per manufacturers specifications for measured stock p.s.i. Teflon tape all threaded fittings. The minimum depth of lateral lines shall be twelve (12) inches. Adapt system to manual compression air blowout.
12. Irrigation mainline that are 2" and smaller mainlines shall be schedule 40 PVC pipe with schedule 80 fittings. Solvent weld all joints as per manufacturers specifications for measured stock p.s.i. Teflon tape on all threaded joints. Line depth must be twenty-four (24) inches minimum.

13. Install dielectric fittings whenever dissimilar metals are joined.
14. Design locations are approximate. Make minor adjustments necessary to avoid plantings and obstructions such as signs and light standards. Maintain 100% percent irrigation coverage of areas indicated.
15. Controller valves to be grouped together whenever possible. Install valve boxes with long side perpendicular to walk, curb, lawn, building or landscape features. Valve boxes to conform with finish grades.
16. Control valve wire shall be #14 single conductor, white for common wire, red for hot wire and blue for the spare wire. Provide (2) two spare wire that runs the length of the mainline and to the controller. All wiring shall be UF-UL rated. All connections shall be made with water tight connectors (DWR/J or equivalent) and contained in controller valve boxes. Provide 36" extra wire length at each remote control valve in valve box. Install control wiring with main service line where possible. Provide slack in control wires at all changes in direction.
17. Control valve size, type, quantity, and location to be approved by landscape architect. Install in heavy duty plastic vandal proof box. Size boxes according to valve type and size for ease of maintenance and repair. Install one (1) cubic feet of pea gravel for sump in base of boxes. Boxes to be Caron Brooks.
18. Quick couplers shall be a Rain Bird 44-NP (Non-Potable Cover) with a 1 inch Lasco swing joint assembly. Support with rebar in each retainer lug. Install where shown on the plans.
19. Irrigation system backfill must occur only after system check is completed as specified. Use only rock free clean fill around pipes, valves, drains, or any irrigation system components. Water settle all trenches and excavations.
20. All irrigation pipe running through walls, under sidewalk, asphalt, or other hard surface shall be covered to prevent damage. It is the contractor's responsibility to coordinate sleeving with concrete and pavement contractors. Sleeves will be schedule 40 P.V.C. The depth for mainline sleeves shall be twenty-eight (28) inches minimum. Depth for lateral sleeves shall be sixteen (16) inches minimum. Sleeves shall be a minimum of two feet larger than the pipe to be sleeved. All valve wiring shall be contained in separate sleeving.
21. Plans are diagrammatic and approximate due to scale. Where possible, all piping is to be installed within the planting areas. No tees, elbows, or changes in direction shall occur under hardscape.
22. It is the contractors responsibility to verify all quantities based upon the plan prior to completion of a construction cost estimate.
23. The irrigation contractor shall flush and adjust all sprinkler heads for optimum performance and to prevent possible overspray onto walks, roadways, and/or buildings as much as possible. This shall include selecting the best degree of arc to fit the site and to throttle the flow control of each valve to obtain the optimum operating pressure for each system. All mainlines shall be flushed prior to the installation of irrigation heads.

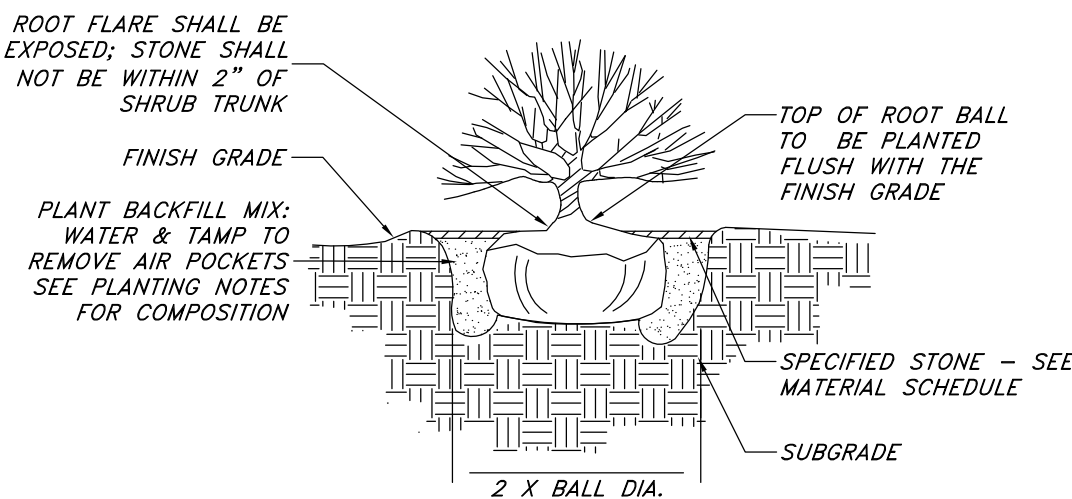
24. All sprinkler heads shall be set perpendicular to finish grade of the areas to be irrigated and shall be installed 6-8" from buildings walls, or within 4" of pavement, curbs, or header edges.
25. Drip system piping shall consist of a rigid schedule 40 PVC pipe distribution system connecting drip irrigated planter areas. Poly tubing or drip line shall be run off the 4" rigid PVC in each bed. The area or island with a PVC to poly tubing adapter. No poly tubing shall run under pavement.
26. Electrical power source at the controller location shall be provided by electrical contractor. Contractor shall verify location of controller prior to installation with owner.
27. Provide and install all manufacturer's recommended surge and lighting protection equipment on all controllers.
28. All lines shall slope to manual drains (see details). If field conditions necessitate additional drains, then drains shall be installed for complete drainage of the entire system. Provide a gravel sump under each drain. All drains shall be a minimum of 6" below grade.
29. Upon completion and approval of irrigation system, irrigation contractor to provide the owner with two sets of drawings indicating actual location of piping, valves, sprinkler heads, wiring, and zones.
30. An irrigation zone map shall be provided in a protective jacket and be kept with the main irrigation controller. The map shall show all approved irrigation and include all zone valve locations.
31. It shall be the responsibility of the sprinkler contractor to demonstrate to the Owner the proper winterization and start-up procedures for the entire system prior to final payment.



Tommy's Carwash Santaquin

SHEET NO.

L2.1



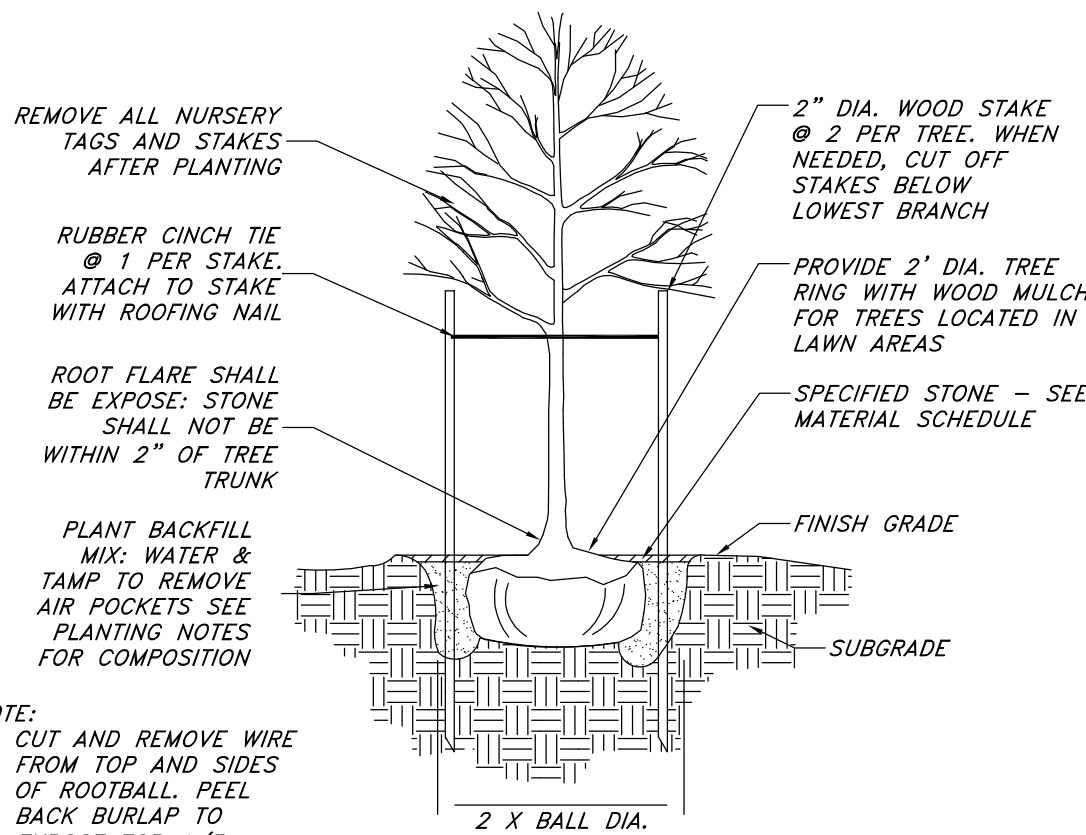
NOTE:

1. CUT AND REMOVE WIRE FROM TOP AND SIDES OF ROOTBALL. PEEL BACK BURLAP TO EXPOSE TOP 1/3 OF ROOTBALL.
2. REMOVE ALL NURSERY TAGS AND STACKS AFTER PLANTING.

1

SHRUB PLANTING

Not to Scale



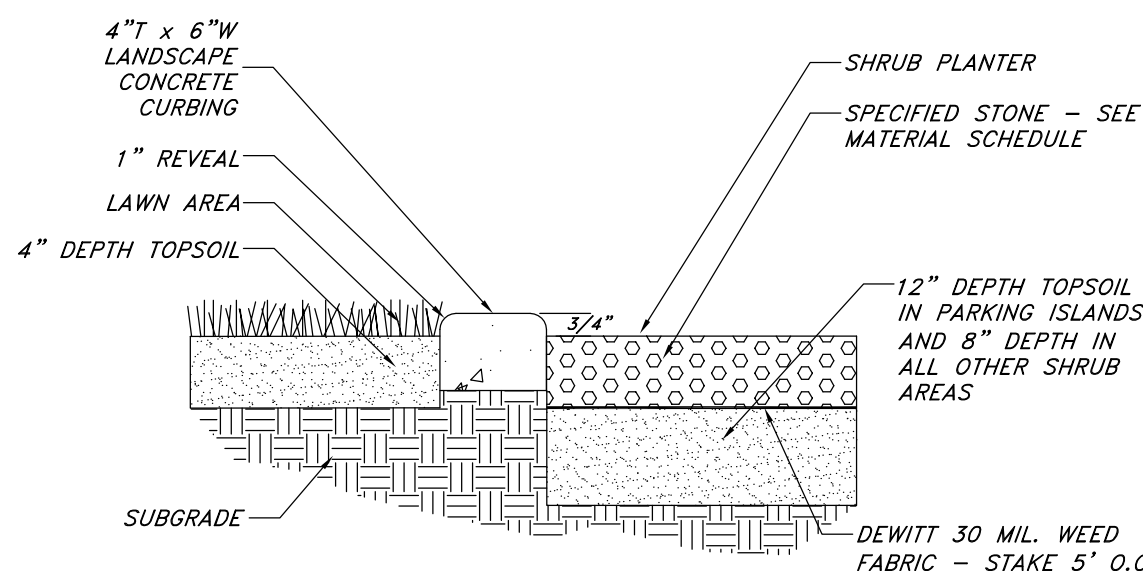
NOTE:

1. CUT AND REMOVE WIRE FROM TOP AND SIDES OF ROOTBALL. PEEL BACK BURLAP TO EXPOSE TOP 1/3 OF ROOTBALL.

2

DECIDUOUS TREE PLANTING

Not to Scale



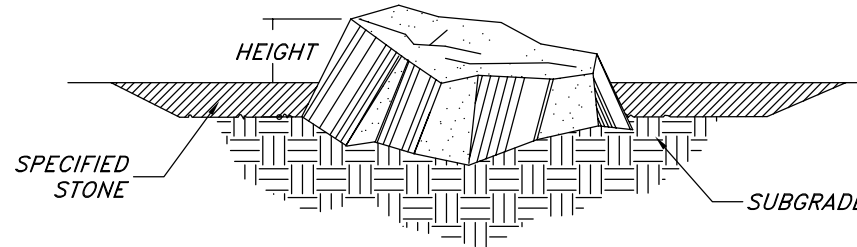
NOTE:

1. SMOOTH GRADE ENTIRE AREA PRIOR TO PLACEMENT OF CURBING AND SPECIFIED MULCH.
2. CONTROL JOINTS SHALL BE PLACED AT 4' O.C.

3

LANDSCAPE CONCRETE CURBING

Not to Scale



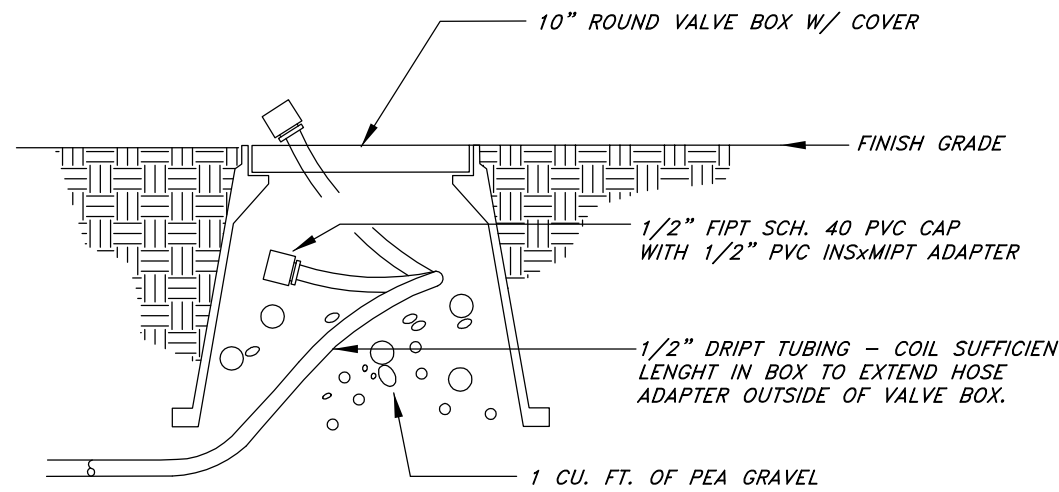
NOTE:

1. USE CARE TO MINIMIZE MARRING & SCRATCHING
2. BURY TWO INCHES OF BOULDER HEIGHT INTO SOIL, KEEPING BEST VISUAL SIDE ABOVE GROUND.

4

LANDSCAPE BOULDER

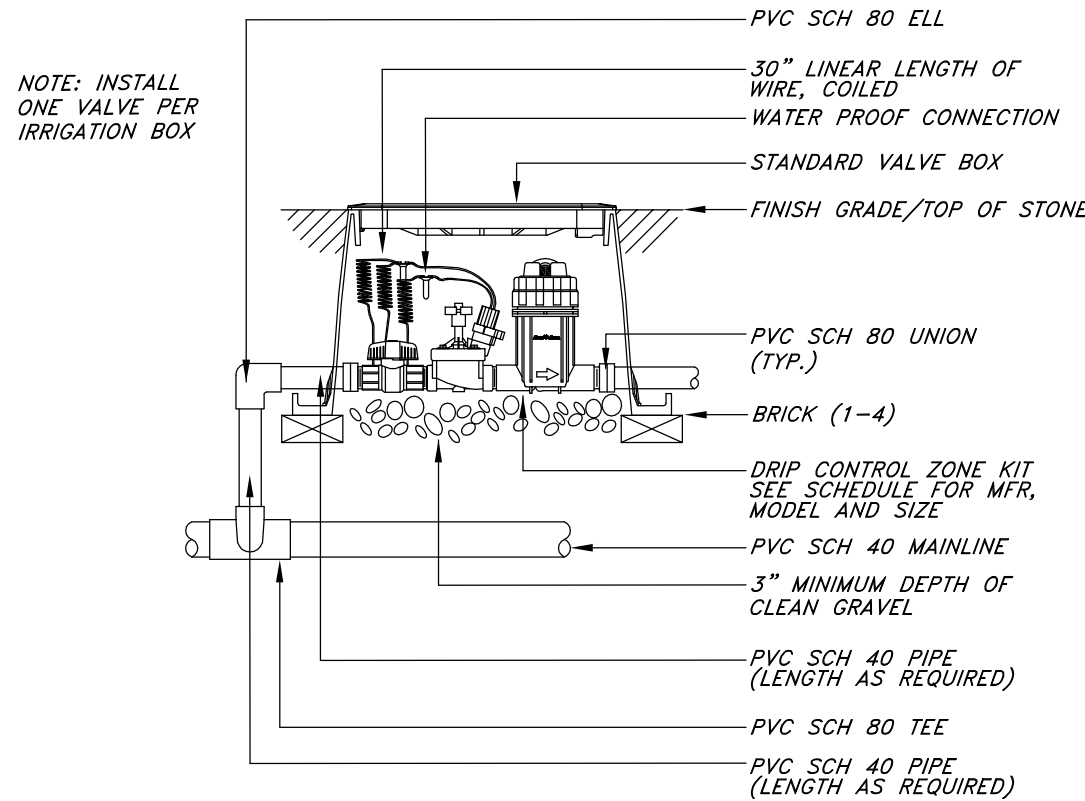
NOT TO SCALE



5

COMPRESSION FLUSH CAP

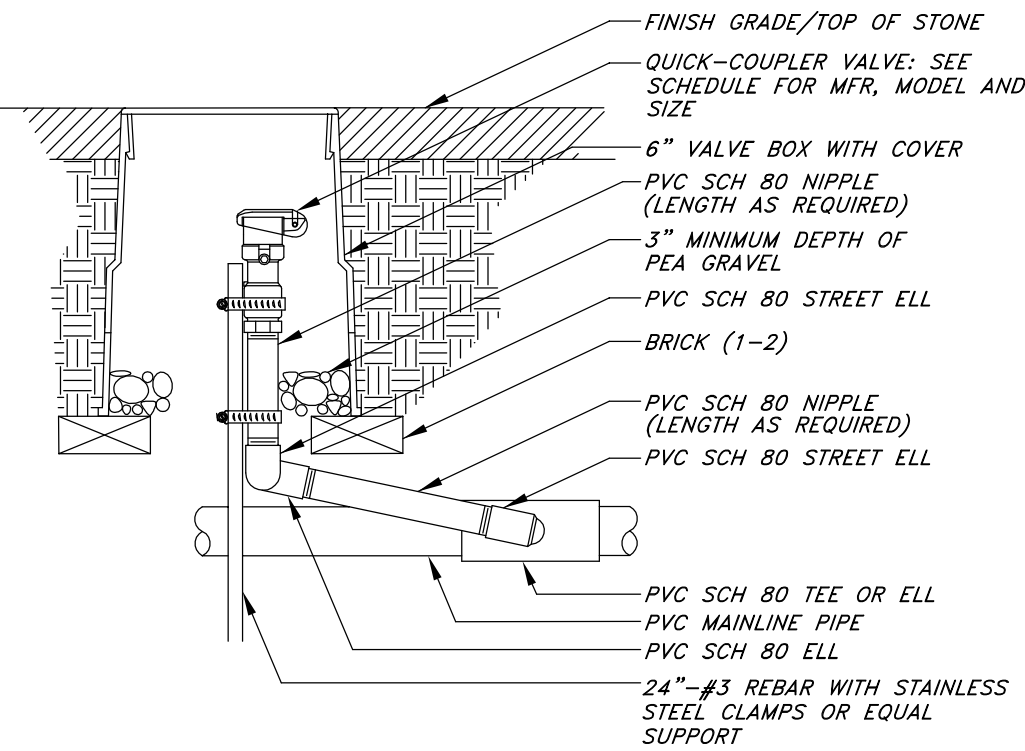
NOT TO SCALE



6

DRIP CONTROL VALVE

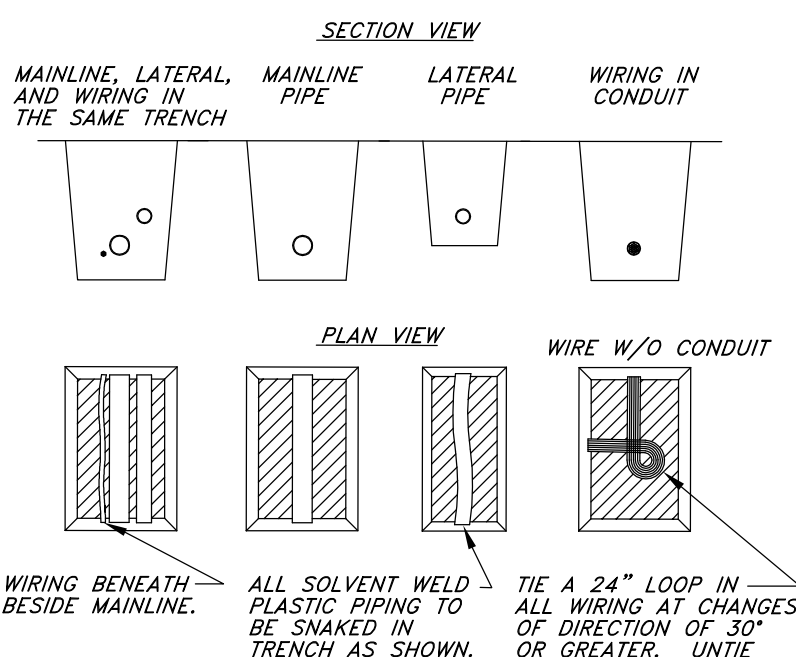
NOT TO SCALE



7

QUICK COUPLING VALVE

NOT TO SCALE



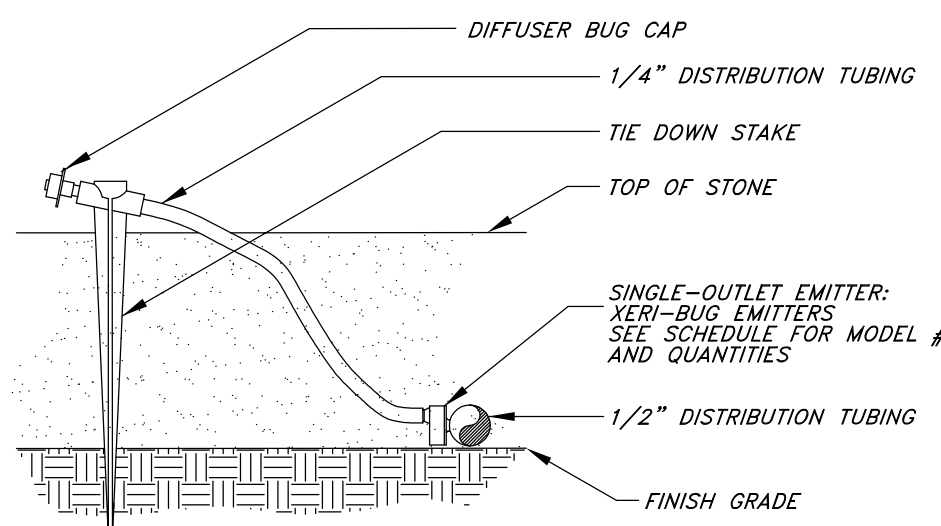
NOTES:

1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH. 40 PVC PIPE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS SEE IRRIGATION NOTES.

8

PIPE & WIRE TRENCHING

NOT TO SCALE



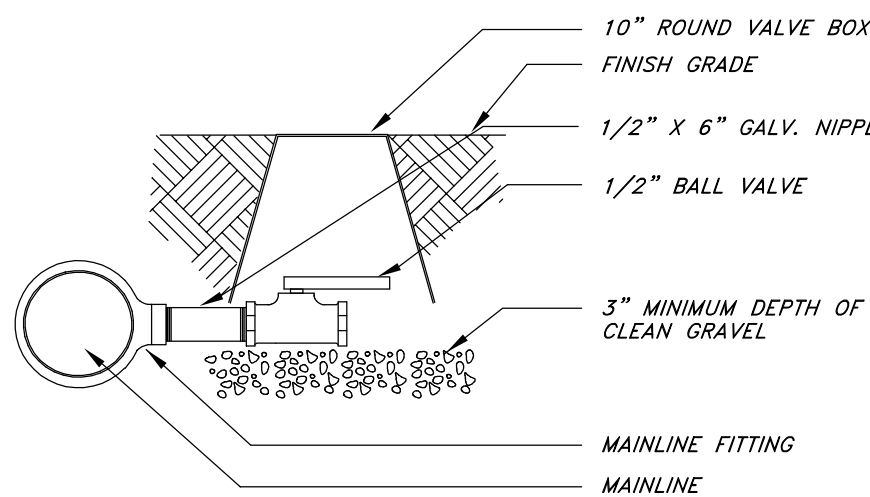
NOTE:

1. USE RAIN BIRD XERIMAN TOOL MODEL XM-TOOL TO INSERT EMITTER DIRECTLY INTO 1/2" DISTRIBUTION TUBING.
2. INSTALL EMITTERS ON OPPOSING SIDES OF ROOTBALL. EMITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MIN. OF 1" AND A MAX. OF 2". FLUSH ALL LINES THOROUGHLY, INCLUDING 1/4" DISTRIBUTION TUBING PRIOR TO EMITTER INSTALLATION. IF PLANTING IN A 4:1 SLOPE OR GREATER, INSTALL BOTH EMITTERS ON UPHILL SIDE OF ROOTBALL.

9

EMITTER INTO DISTRIBUTION TUBE

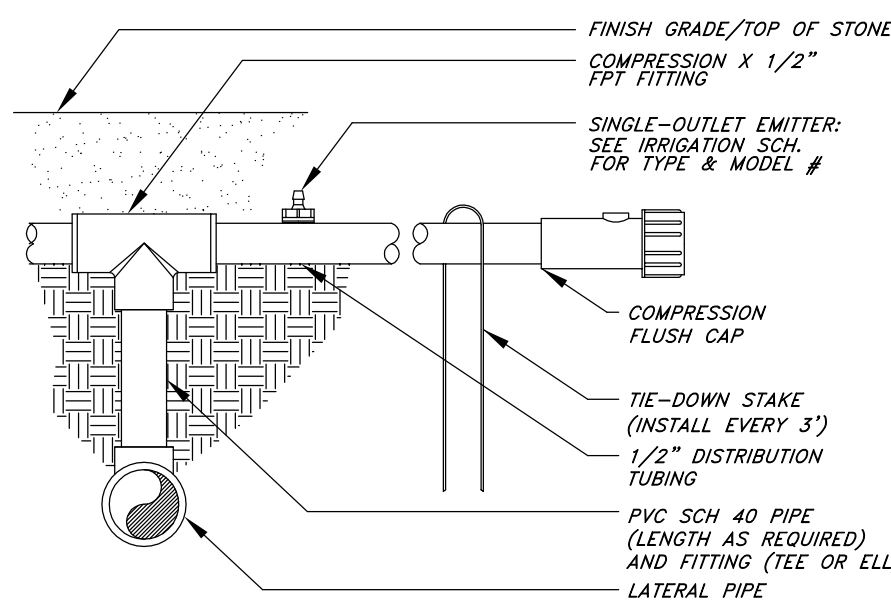
NOT TO SCALE



10

MANUAL DRAIN VALVE

NOT TO SCALE



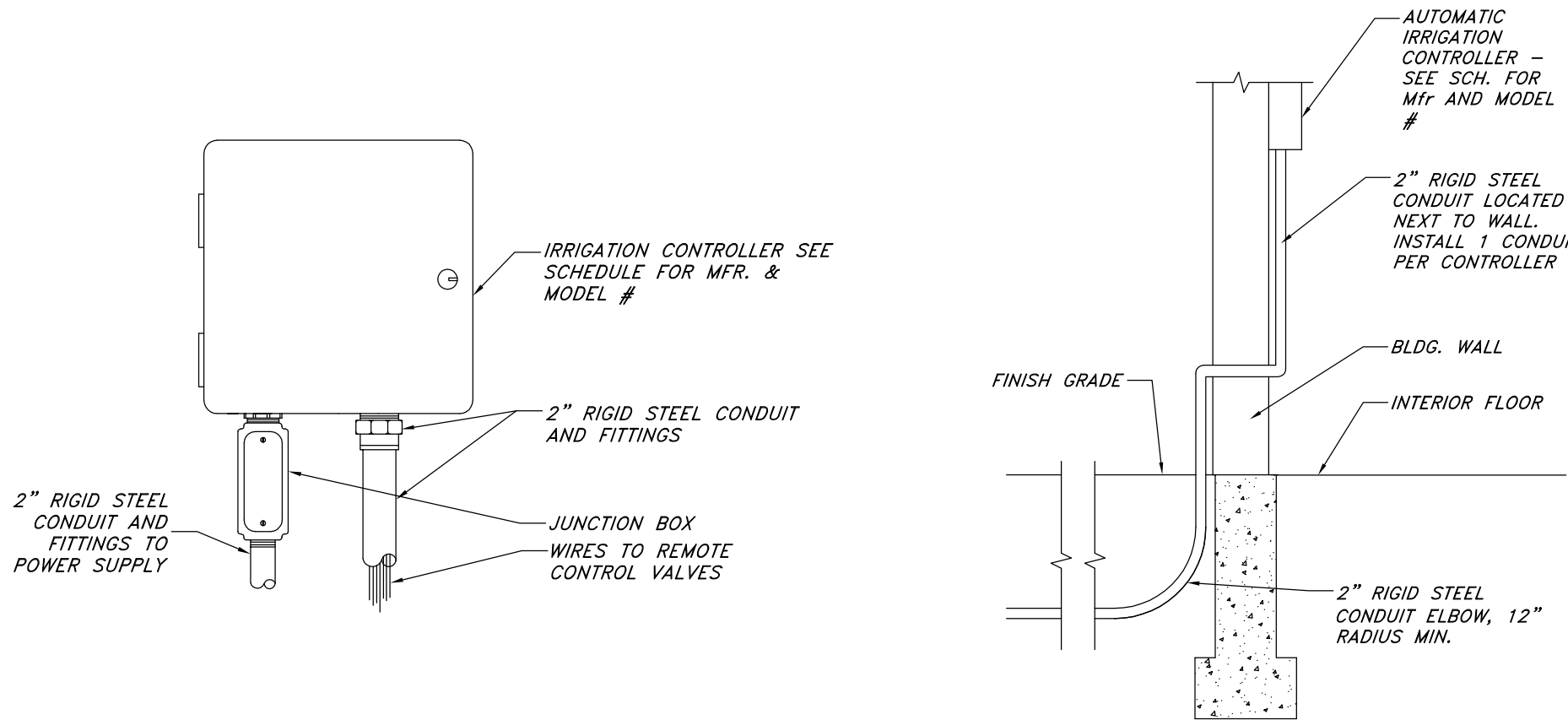
NOTE:

1. USE RAIN BIRD XERIMAN TOOL MODEL XM-TOOL TO INSERT EMITTER DIRECTLY INTO 1/2" DISTRIBUTION TUBING.

11

PVC TO POLY PIPE CONNECTION

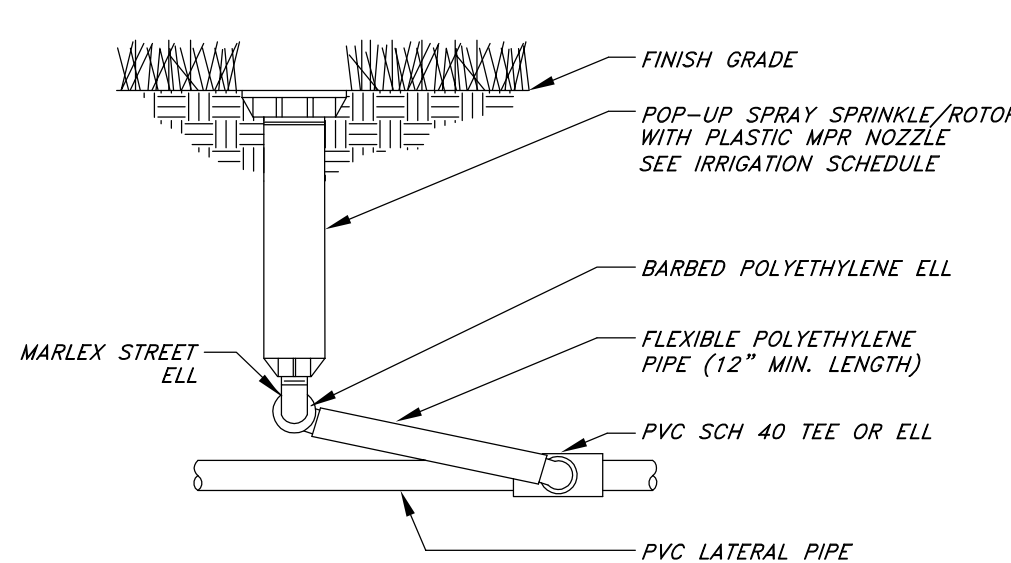
NOT TO SCALE



12

IRR. CONTROLLER - INDOOR WALL MOUNT

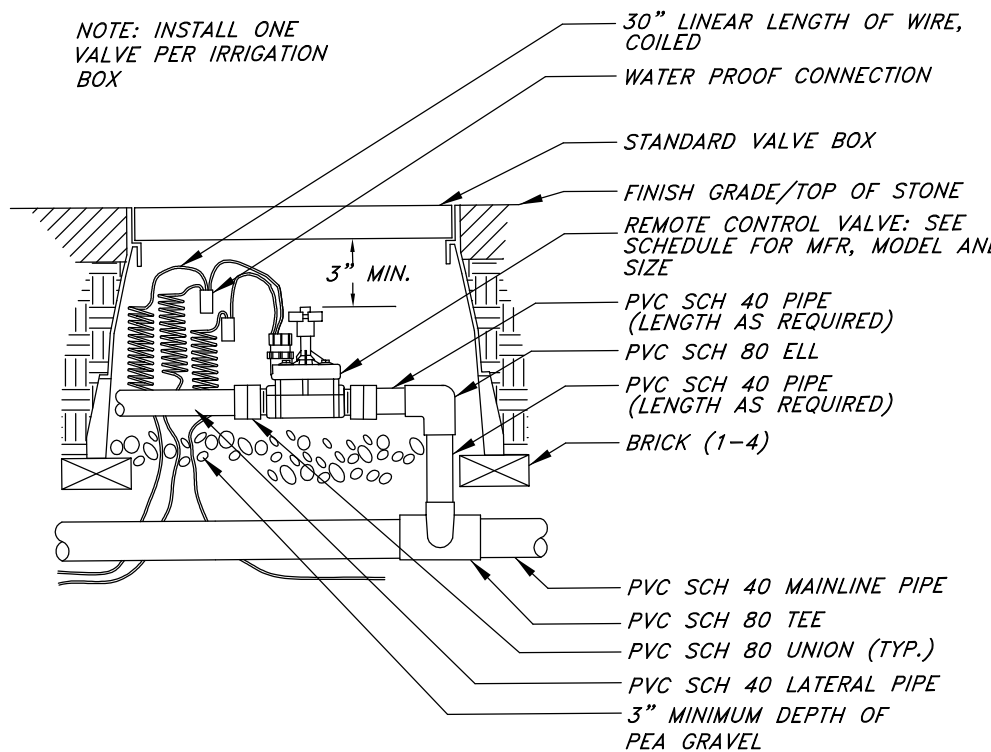
Not to Scale



13

POP-UP SPRAY HEAD

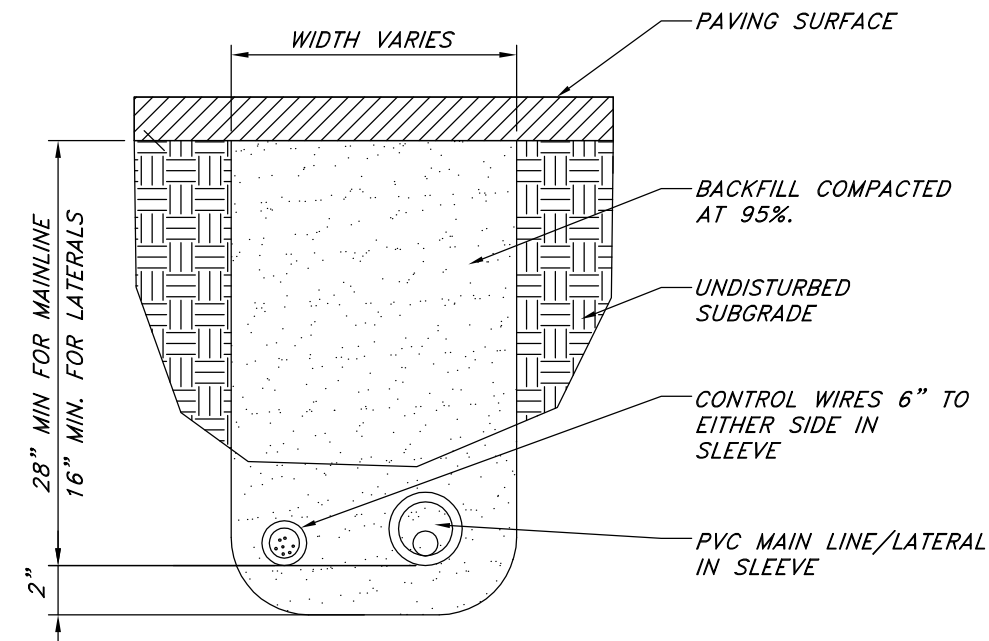
NOT TO SCALE



14

REMOTE CONTROL VALVE

NOT TO SCALE



NOTE:

1. ALL IRRIGATION SLEEVES TO BE SCH. 40 PVC PIPE
2. ALL SLEEVES SHALL BE TWICE THE NOMINAL SIZE OF THE PIPE WITHIN.
3. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
4. SLEEVE TO BE RUN UNDER PAVEMENT AND EXTEND A MIN. OF 18" PAST EDGE OF PAVEMENT. END OF SLEEVE TO BE CAPPED AND MARKED.

15

PIPE SLEEVING

Not to Scale

ANDERSON WAHLEN & ASSOCIATES
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(801) 521-8529 - AWAengineering.net

Landscape & Irrigation Details

Tommy's Carwash Santaquin

60 N 400 East
Santaquin, UT

Professional Seal of Utah
Jared R. Manley
No. 7740426-5301
06/24/2021
Landscape Architect

811

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Call before you dig.

17 Jun, 2021

SHEET NO.

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