

AGENDA

Board of Public Works Meeting

Tuesday, January 31, 2017 - **7:00 p.m.**

Jackson Village Hall

N168W20733 Main Street

Jackson WI 53037

1. Call to Order and Roll Call.
2. Approval of Minutes for November 29, 2016, meeting.
3. Review of Storm Water Drainage Stonehedge Drive.
4. Review of Storm Water Drainage Hemlock Street
5. Review of Rate Study Engineering Service Quotes for Jackson Sewer Utility.
6. Review of Service Bids for SCADA System Upgrade Project
7. Chateau Drive Reconstruction Project – Update
8. Review of Engineering Proposal for CTH P and STH 60 intersection.
9. Director of Public Works Report.
10. Citizens/Village Staff to address the Board.
11. Adjourn.

Persons with disabilities requiring special accommodations for attendance at the meeting should contact the Village Hall at least one (1) business day prior to the meeting.

It is possible that members of the Village Board may attend the above meeting. No action will be taken by any governmental body at this meeting other than the governmental body specifically referred to in this meeting notice. This notice is given so that members of the Village Board may attend the meeting without violating the open meeting law.

DRAFT MINUTES

Board of Public Works Meeting

Tuesday, November 29, 2016 – Immediately following the Budget Hearing, not prior to 7:10 p.m.

Jackson Village Hall

N168W20733 Main Street

1. Call to Order and Roll Call.

Chairman Tr. Don Olson called the meeting to order at 7:10 p.m.

Members present: Brian Heckendorf, Linda Granec, Tr. Jack Lippold, Tr. Mike Kufahl and Gloria Teifke. Scott Thielmann arrived at 7:30 p.m.

Staff present: John Walther and Brian Kober

2. Approval of Minutes for October 25, 2016 meeting.

Motion by Linda Granec, second by Brian Heckendorf to approve the minutes of the October 25, 2016, Board of Public Works meeting.

Vote: 6 ayes, 0 nays. Motion carried.

3. Pay Request #1 – Stonewall Sidewalk Project – Johnson & Sons Paving.

Brian Kober reported on the item. The path and landscaping are in. The handrail will be installed as soon as the parts are received, possibly this week. The added work is due to the gas station owner asking to take the path to the north. The flume to the south will be on the next project. Motion by Tr. Olson, second by Tr. Kufahl to recommend approval of pay request #1 – Stonewall Sidewalk Project – Johnson & Sons Paving, in an amount not to exceed \$127,087.44. The seeding, final landscaping, and handrail need to be completed. They will try to seed now.

Vote: 6 ayes, 0 nays. Motion carried.

4. Pay Request #1 - Industrial Dr. Sidewalk Project – TP Concrete Inc.

Brian Kober reported on the item. The project has been completed with landscaping. The asphalt work in front of the Walgreens driveway was paved. Motion by Tr. Kufahl, second by Tr. Lippold to recommend approval of pay request #1 – Industrial Dr. Sidewalk Project – TP Concrete Inc., in an amount not to exceed \$43,663.62.

Vote: 6 ayes, 0 nays. Motion carried.

5. Review of Rate Increase for Jackson Sewer & Water Utility.

Brian Kober reported on the item. This was recommended by the audit. This is a 3% water increase at \$18-\$19 per year on a 5/8 inch meter based on 12,000 gallons use per quarter. Discussion ensued of the septic decant, grease decant, and septic system surcharge rates. The grinder purchase and costs were also discussed. The cost for the items is based on a past grab sample. Brian commented not to raise the rate too high because the Village would lose the haulers. Scott Thielmann arrived at 7:30 p.m.

Tr. Olson questioned if there is more detail in regards to the costs such as a cost analysis. Brian will do more grab sampling.

The sewer can be increased now; however, normally it is increased with the water. This is a simplified rate case study. There will be a notice in the paper. It will be advertised in January and then will be on the water bill postcards. The rate would go into effect after the first quarter of 2017.

Motion by Brian Heckendorf, second by Tr. Olson to recommend approval of the rate increase for the sewer and water utility.

Vote: 7 ayes, 0 nays. Motion carried.

6. Selling of Village Equipment.

Brian Kober reported on the item. Motion by Tr. Olson, second by Tr. Lippold to recommend approval of the sale of Village Equipment.

Vote: 7 ayes, 0 nays. Motion carried.

7. Review of Engineering Proposal for CTH P and STH 60 Intersection.

Brian Kober presented information on the item in regards to the old park and ride.

The County owns the old Park and Ride and the Village would acquire the land back to the Village for future development. Brian Kober would like to introduce a plan for development and access to Hwy P, prior to the retirement of the Secretary of Transportation at the Wisconsin Department of Transportation. The strip mall needs an additional access point to improve safety. It was suggested to reach out to the secretary of transportation and ask if there are any plans.

Motion by Tr. Olson, second by Tr. Lippold to refer the item to the January 2017 meeting.

Vote: 7 ayes, 0 nays. Motion carried.

8. SCADA System Upgrade - Update.

Brian Kober reported that the plant will be viewed on December 6, 2016, and the bid opening will be on December 15, 2016. The proposals will be at the January meeting. The project will take six to eight months.

9. Marshland Drive Sidewalk Project – Update.

Brian Kober commented that the project is getting complicated. The grades need to be reviewed. They are working to keep the project in the easement area. The project will not be poured this year.

10. Director of Public Works report.

Brian Kober gave the report. Motion by Linda Granec, second by Scott Thielmann to place the Director of Public Works report on file.

Vote: 7 ayes, 0 nays. Motion carried.

11. Citizens/Village Staff to Address the Board.

Gloria Teifke questioned that the new pathway that goes to a crosswalk leads to grass.

John Walther commented that the ABC building closing was on Thursday. The departments will now migrate to a new location.

Tr. Kruepke gave a phone number to John Walther for Abe Miller for the deconstruction and removal of the public works barn.

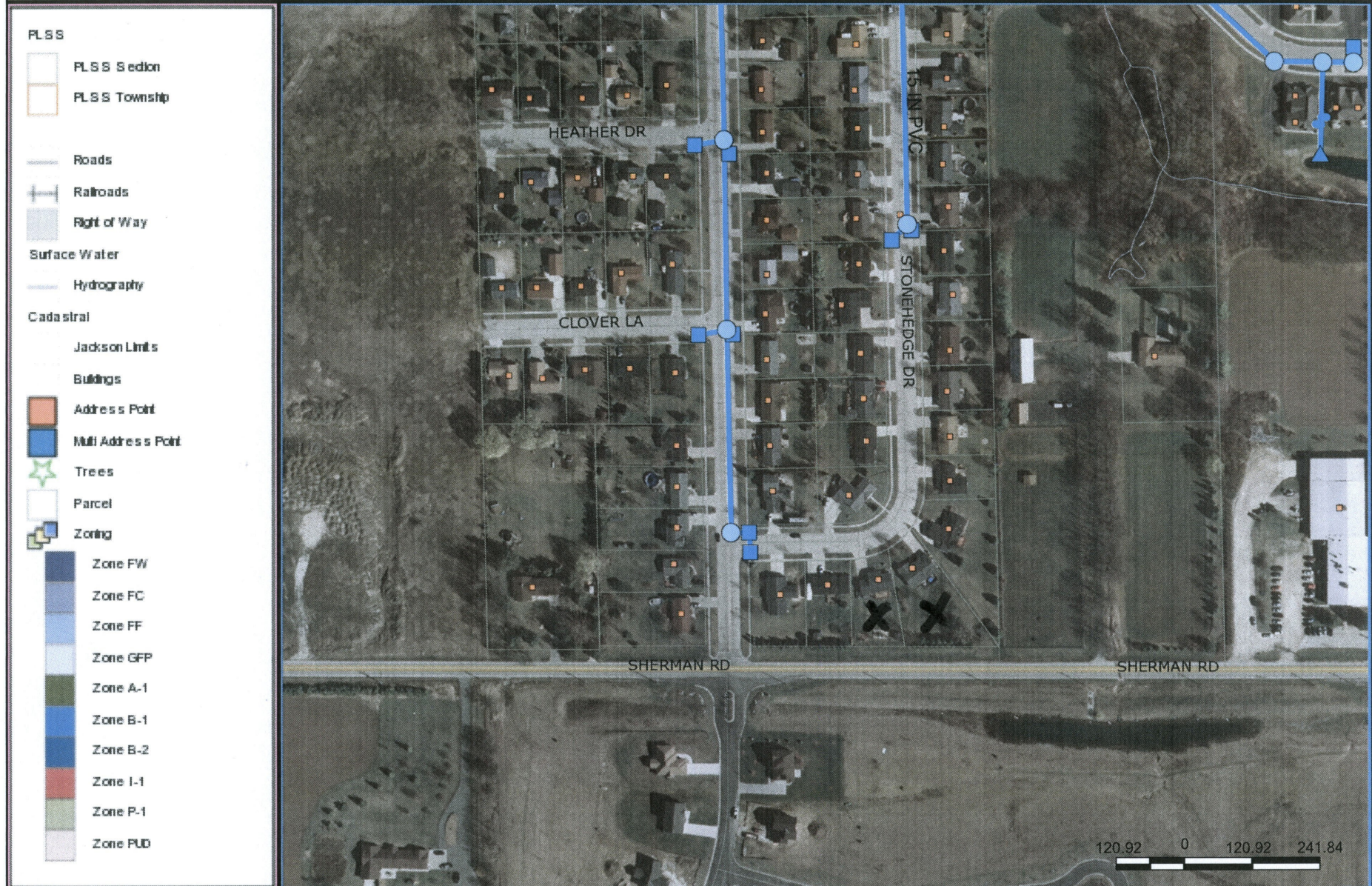
12. Adjourn.

Motion by Scott Thielmann, second by Tr. Lippold to adjourn at 8:25 p.m.
Vote: 7 ayes, 0 nays. Motion carried.

Respectfully submitted by: Deanna L. Boldrey, Village Clerk-Treasurer

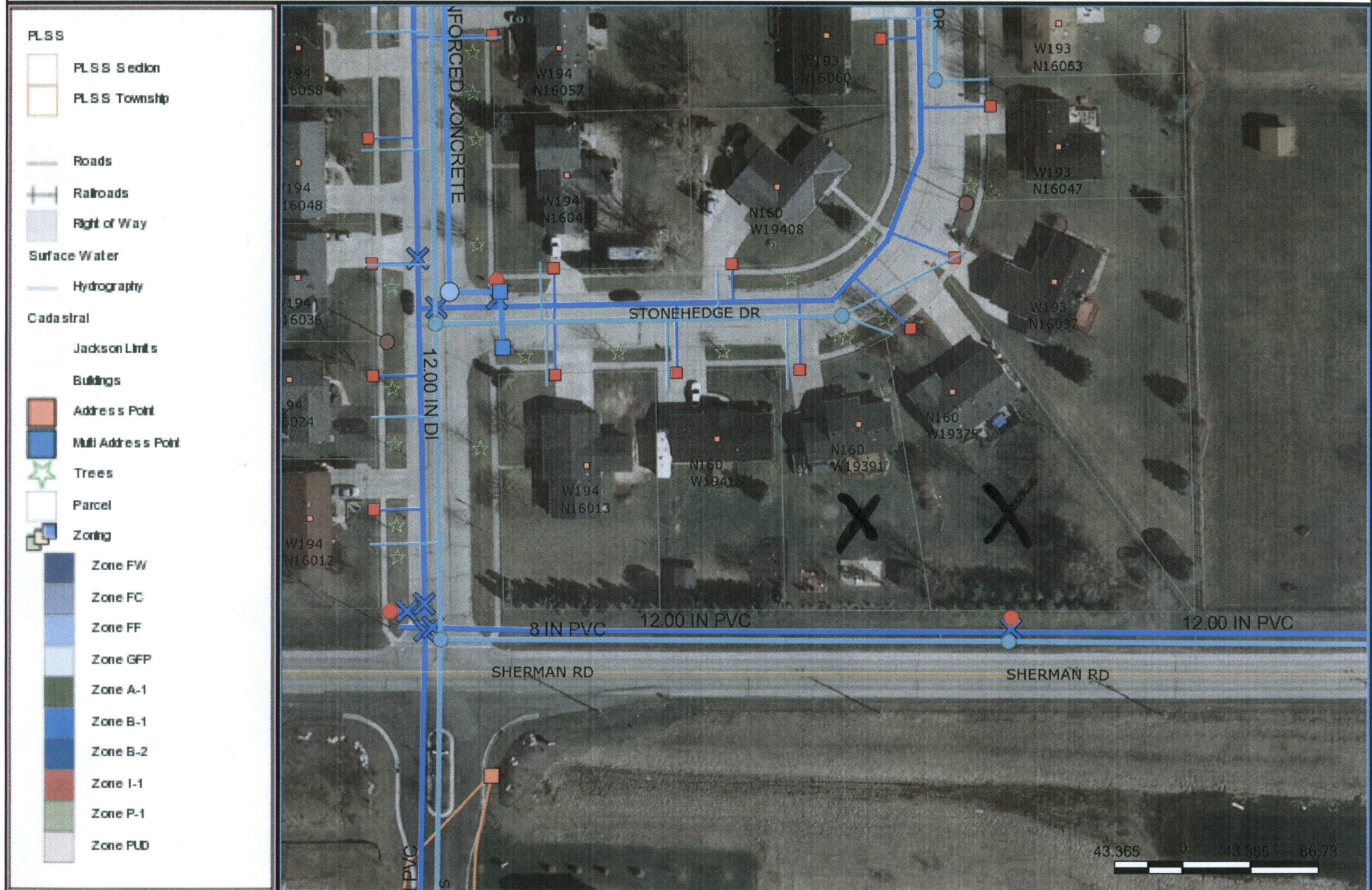
DRAFT

Village of Jackson



This map was compiled using data believed to be accurate; however, a degree of error is inherent in all maps. This map was distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of the maps to define the limits or jurisdiction of any federal, state, or local government. Detailed on-the-ground surveys and historical analyses of sites may differ from the maps.

Village of Jackson



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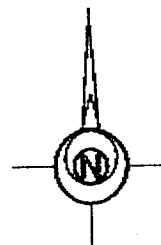
Village of Jackson



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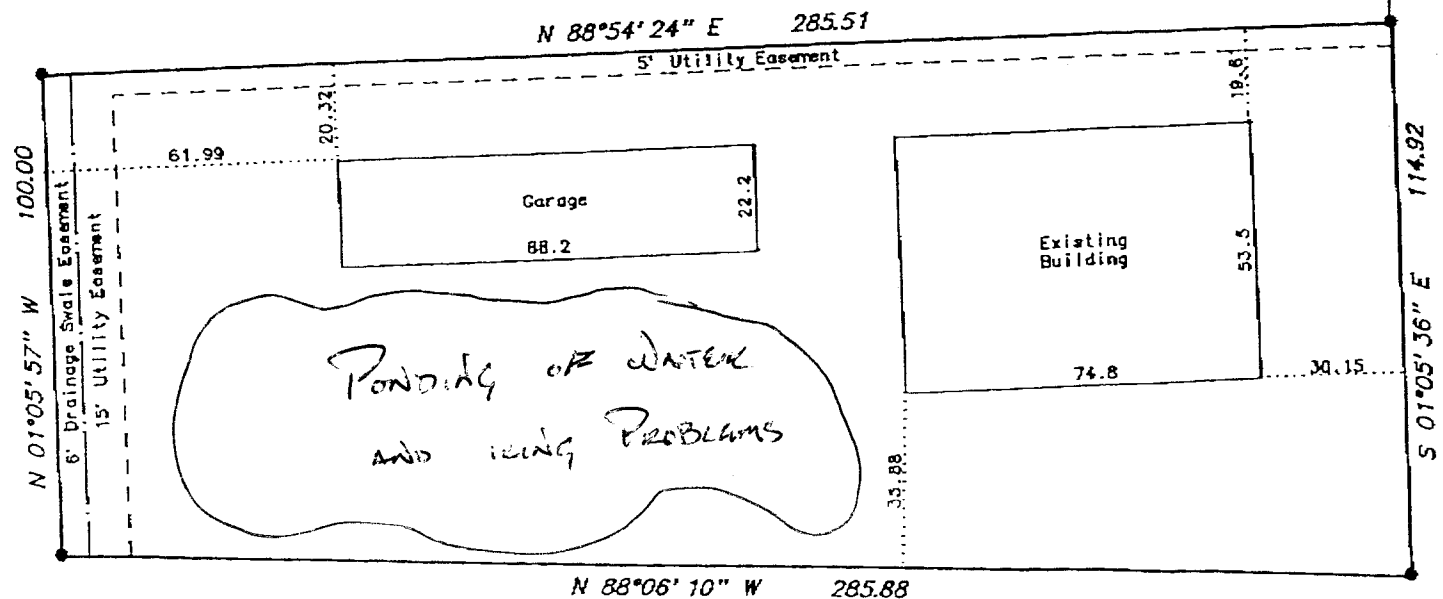
PLAT OF SURVEY FOR FREDRIC M. WEIN

Lot Three (3) of Block Six (6) in Pinehurst Addition No. 2, a Subdivision of part of the NW 1/4 of the NW1/4 of Section Twenty (20), Town Ten (10) North, Range Twenty (20) East, Village of Jackson, Washington County, Wisconsin.

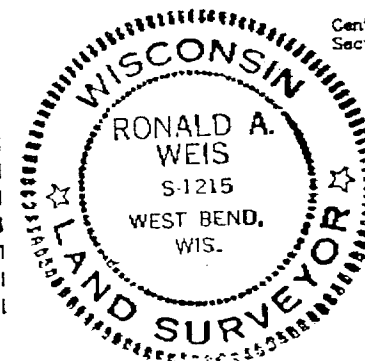


SCALE: 1" = 40'

● - 1" Iron Pipe Found



HEMLOCK STREET



N 1/4 Corner
Section 20-10-20

Center
Section 20-10-20

State of Wisconsin)
Washington County)s.s.

I hereby certify that I have made a survey of the land shown and described hereon and that this plat of survey is a correct representation of the boundaries of the land surveyed and the location of buildings on said land.

Dated this 20th day of MARCH 1997.

Ronald A. Weis
Registered Land Surveyor

Citizens/Weis Corporation 3018 E. Progress Dr. Suite 2 West Bend, WI 53095 (414)338-3600

File: wein_pine2_lot3 blk6
Dated: 3-20-97 Drafted By: W.G.J.



**Village of Jackson
Hemlock Street
Storm Sewer Extension**

Bench Mark Southwest tag bolt on hydrant flange at W201 N16659 Hemlock Street
 Height Reading HI
 876.11 2.84 878.95 Instrument height used

Bench Mark Southwest tag bolt on hydrant flange at Hemlock Street & Hickory Lane
 Height Reading HI
 873.44 4.56 878 Note: reading was a long distance.

4/24/2013

Station	Reading	Invert of Curb Elevation	Elevation	Pipe Invert	Cut/Fill	Remark
0+00	3		869.55			Inlet flow line
0+00	6.40	872.55		869.55	3.00	Inlet base
0+25	6.75	872.20		869.68	2.52	
0+75	6.63	872.32		869.80	2.52	
1+00	6.48	872.47		869.93	2.54	
1+25	6.28	872.67		870.05	2.62	
1+34	6.21	872.74		870.18	2.56	Crossing of High Pressure gas main
1+50	6.14	872.81		870.30	2.51	
1+73	6.09	872.86		870.43	2.43	
1+73	6.09	872.86		870.63	2.23	Start of 8-inch pipe
2+00	5.23	873.72		870.75	2.97	
2+25	5.21	873.74		870.88	2.86	
2+50	5.10	873.85		871.00	2.85	
2+75	4.87	874.08		871.13	2.95	
3+00	4.76	874.19		871.25	2.94	
3+25	4.86	874.09		871.38	2.71	Proposed Inlet

Materials	Quantity	Unit	Price	Cost	Remarks
12-inch ADS Pipe	173	FT	\$57.94	\$10,023.62	price includes curb removal
Concrete Inlet	1	Each	\$805.00	\$805.00	
Granular Backfill	1	LS	\$1,500.00	\$1,500.00	
Curb Replace	1	LS	\$1,730.00	\$1,730.00	
Asphalt Street Repair	1	LS	\$500.00	\$500.00	

Sub-Total \$14,558.62

8-inch ADS Pipe	152	Each	\$51.25	\$7,790.00	
Field Drain Inlet	1	Each	\$325.00	\$325.00	
Concrete Driveway Repair	2	Each	\$500.00	\$1,000.00	
Asphalt Driveway Repair	1	LS	\$500.00	\$500.00	
Topsoil and Seeding	1	LS	\$100.00	\$100.00	

**Sub-Total \$9,715.00
Total \$24,273.62**

Memo

To: Board of Public Works

From: Brian W. Kober, P. E., Director of Public Works

Subject: Jackson Sewer Utility Rate Study

Date: January 27, 2017

CC: Village Board; John Walther, Village Administrator

During the recent rate increase discussion there was concern over the actual cost of treatment for waste water at the waste water treatment plant. The rate study is not intended to be a full review of the Jackson Sewer Utility operation (debt service, etc.), but verify the actual cost of treating BOD, TSS, Ammonia, and Phosphorus in the waste stream. The Jackson Sewer Utility has recently increased the volume rate by 3% to a rate of \$5.04 per 1,000 gals. The rate study shall include the verification of the volume rate for waste treatment.

The Jackson Sewer Utility received two quotes from Strand and Associates, and Town & Country Engineering. After review of the quotes, the Jackson Sewer Utility recommends the hiring of Town and Country Engineering to complete the rate study for a lump total of \$4,000.

If you have any questions please let me know.

Brian W. Kober, P.E.

MEMORANDUM

Date: January 24, 2017

To: Brian Kober, P.E. – Village of Jackson

From: Greg Droessler, P.E.

Subject: Village of Jackson – Sewer Utility Rate Study

Project Scope and Understanding

The Jackson Sewer Utility is requesting Engineering Services to complete a rate study. The rate study is not intended to be a full review of the entire utility operation (debt service, etc.), but rather to verify the actual cost of treating BOD, TSS, Ammonia, and Phosphorus in the waste stream.

The Jackson Sewer Utility has recently increased the volume rate by 3% to a rate of \$5.04 per 1,000 gals. The rate study shall include verification of the volume rate for wastewater treatment.

The Engineering Services shall also include, but not limited to:

- 1) Meet with the Village staff to review the preliminary rate increase estimates and finalize the report.
- 2) Provide a draft report for Village staff review summarizing the key assumptions used in developing the proposed rates, as well as the documented support and calculations for the proposed rates.
- 3) Incorporate Village staff comments, as appropriate, and submit final copies of the report.
- 4) Prepare recommended rates for review and adoption by the Village Board.
- 5) Attend one Village Board meeting to assist in answering questions on the proposed sewer utility rate changes.

Owner Responsibilities

The Village will be expected to provide Town & Country Engineering with the last 2 years of the following information:

- Financial audit information, and annual WWTF O&M costs
- WWTF influent and effluent data
- Waste hauler information on a monthly basis
- Past rate study information

Engineering Costs

The Sewer Utility Rate Study will be completed for a Not To Exceed limit of \$4,000. Costs will be invoiced on a Time and Material basis.

GJD

J:\JOB#S\Jackson\JK-00-00\O&E\Rate Study.docx



Strand Associates, Inc.®
126 N. Jefferson Street, Suite 350
Milwaukee, WI 53202
(P) 414-271-0771
(F) 414-271-8312

January 26, 2017

Mr. Brian Kober
Director of Public Works
Village of Jackson
N168 W20733 Main Street
Jackson, WI 53037

Re: Rate Review for Village of Jackson

Dear Brian,

As we have discussed, a review of the sewer use charges for the Village of Jackson (Village) is needed to verify the actual cost of treating BOD, TSS, ammonia, and phosphorus in the waste stream. The Village of Jackson Sewer Utility has recently increased the volume rate by 3 percent to \$5.04 per 1,000 gallons. This rate study will also include verification of the volume rate for wastewater treatment.

We have completed rate studies for numerous clients, including City of Marshfield, Wisconsin; Town of Bristol, Wisconsin; Stoughton Utilities, Wisconsin; Brookfield, Wisconsin; Chippewa Falls, Wisconsin; Oshkosh, Wisconsin; Fond du Lac, Wisconsin; and City of Athens, Ohio, to name a few. Our philosophy for determining rates is based on developing rates on a case-by-case basis and recognizing the unique characteristics of each sewer utility. There are many tools available to assist in the development of rate structures, such as regulatory guidelines, American Water Works Association (AWWA) and Water Environment Federation (WEF) manuals, and comparisons with surrounding rate structures. We will use these resources as applicable to this project to meet the Village's goal of updating the rates to be representative of the cost of service for volume, BOD, TSS, ammonia, and phosphorus, and verification of the volume rate.

Included in this proposal is our recommended *Scope of Services*, *Project Team*, *Proposed Fee*, and *Schedule* for the project.

Scope of Services

Streamlined Scope Meets the Village's Needs

We propose the following Scope of Services to evaluate and provide recommendations for rates.

- Provide information request to Village.
- Review cost of service for volume, BOD, TSS, ammonia, and phosphorus. Expenses will be allocated between each of the billing parameters to determine the cost of treatment.
- Meet with the Village to review the preliminary rate increase estimates and finalize the report.
- Provide a draft report for Village review summarizing the key assumptions used in developing the proposed rates, as well as the documented support for the proposed rates.
- Incorporate Village comments, as appropriate, and submit final copies of the report.
- Prepare recommended rates for review and adoption by the Village Board.
- Attend one Village Board meeting to assist in answering questions on the proposed rate changes.

Mr. Brian Kober, Director of Public Works
Village of Jackson
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Project Team

Project Team's Understanding of Jackson's Needs Provides Valuable Rate Information for Future Decision-Making

Our proposed project team has a wealth of experience with all aspects of rate evaluations. The following organization chart identifies the roles of our team members on this project.

Our project team provides exceptional experience with sewer operations and rates.



Philip Bzdusek, P.E.
Project Manager/Quality Control Engineer

Philip Severson, P.E.
Project Engineer

Support Staff (as needed)
Technicians, Administration

Project Manager/Quality Control Engineer

Philip A. Bzdusek, Ph.D., P.E., will serve as the Project Manager and Quality Control Engineer and be responsible for all aspects of the rate study. Phil has B.S., M.S., and Ph.D. degrees in Civil Engineering from the University of Wisconsin-Milwaukee and is a skilled environmental, wastewater, and municipal engineer with more than 11 years of project management, design, and construction-related experience on a wide array of projects, including rate studies.

Phil served as a Project Manager for the Village's Septage Receiving Odor Control Project and was Lead Project Engineer for the Village's Sherman Road Interceptor and Water Main project, completed in 2005. Phil was Project Manager for the City of Athens, Ohio, rate study that reviewed rate changes necessary to fund a \$15,000,000 wastewater treatment plant upgrade. A detailed spreadsheet developed for the Athens project has been regularly used by the City to evaluate revenues and debt, and annually review the need for a rate adjustment. Phil's knowledge of the Village of Jackson's sewer utility and WWTP will assist in allocations of operating costs between volume, BOD, TSS, ammonia, and phosphorus billing parameters.



Phil's knowledge of the Village's WWTP operations are an asset for this project.

Mr. Brian Kober, Director of Public Works
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Project Engineer

Philip B. Severson, P.E., is a Project Engineer and Project Manager in our Wastewater Group. He will perform the data analyses and other key tasks for the sewer rate study. During his time at our firm, Phil has worked on dozens of sewer and wastewater projects, and has developed an expertise in user charge system development. As such, he is routinely involved in developing billing parameters, unit charges, and related data analyses required to create equitable user rates. Phil's recent similar projects include rate reviews for the cities of Marshfield, Dodgeville, Chippewa Falls and Lancaster, Wisconsin, as well as for the Fox River Water Reclamation District (FRWRD) and City of Elgin, Illinois.



Phil has developed rate reviews for more than 15 projects.

Proposed Fee

Project Fee Provides Resources Necessary to Adequately Complete Project Scope

Services will be provided on an hourly rate basis and the Village will be billed for the time and expenses used in performing the services. The proposed limiting fee for this Scope of Services is \$13,500.

Schedule

Project Schedule is Flexible to Meet Village's Requirements

We can begin work immediately upon authorization. The draft report will be provided to the Village no later than March 31, 2017. The report will be finalized by April 30, 2017. This proposed schedule is flexible and can be adjusted based on the needs of the Village.

As always, we appreciate the opportunity to submit this proposal and provide services for the Village. If there are any questions, please call me at 414-271-0771.

Sincerely,

STRAND ASSOCIATES, INC.®

A handwritten signature in black ink, appearing to read "Philip Bzdusek". The signature is fluid and cursive.

Philip A. Bzdusek, P.E.
Project Manager/Quality Control Engineer

January 25, 2017

Mr. Brian Kober, P.E.
Village of Jackson
N168 W20733 Main Street
Jackson, WI 53037

Attention: Brian W. Kober, P.E., Director of Public Works/Village Engineer
Subject: Analysis of Bids and Recommendation for Award
2016 Wastewater Treatment Facility SCADA Upgrade

Dear Brian:

The purpose of this letter is to summarize the analysis of the proposals that were received on December 20, 2016 for the subject project to provide, install, start-up, and test a complete and operable SCADA system for the Village's wastewater treatment facility and lift station.

Project specifications and bidding documents were requested by eight (8) integration firms specializing in SCADA controls, and four integrators submitted proposals for this project. Our pre-bid estimate for the Base Bid and Allowance items was \$500,000.

A total of 14 additional Alternate Bid items were included on the Bid Form included in the Procurement Documents so as to allow the Village to itemize and choose between specific project additions or subtractions based on the costs provided. In addition to the Alternate Bid items listed, the documents also included room for Proposers to offer additional add or deduct items as they deemed beneficial to the Village. A description and itemization of these Alternate Bid items is included in the attached Bid Tabulation.

A summary of the Base Bid proposals is as follows:

Integrator	Base Bid, Including Allowances A and B
InControl, Inc.	\$422,234.00
L.W. Allen, Inc.	\$468,260.00 ⁽¹⁾
Automatic Systems Co.	\$495,256.00
Wunderlich-Malec Services, Inc.	\$504,100.00

(1) L.W. Allen offered a deduct from the Base Bid that would reduce the Base Bid from \$468,260 to \$439,618. See the Bid Tabulation for details.

A review of the Alternate Bid items proposed by each Integrator, including alternates to the Base Bids, was completed by Village staff in conjunction with Town and Country Engineering. This review was conducted to identify Alternate Bid items that could be added to, or deducted from, the project scope to give the Village a better product at an affordable cost. The selected Alternates generally include: replacement of old relays, VFDs, and an MCC section at the WWTF, as well as the addition of monitoring sensors for the 2 digester covers.

The following table includes the Base Bid and Selected Alternate Bid items as highlighted on the attached Bid Tabulation:

Integrator	Base Bid + Selected Alternate Bid Items
InControl, Inc.	\$495,785.00
L.W. Allen, Inc.	\$506,231.00 ⁽²⁾
Automatic Systems Co.	\$576,015.00
Wunderlich-Malec Services, Inc.	\$600,285.00

(2) L.W. Allen's price includes the lowered Base Bid of \$439,618 noted above, as well as additional price modifications as highlighted on the Bid Tabulation.

Two vendors were invited to present to Village staff and our engineering team: InControl and L.W. Allen. These presentations were conducted to allow our team and the Village staff to evaluate not only the proposed costs, but other tangibles items from each firm such as: the firm's technical service, each firm's capacity to complete the project on time, how they would address the switchover, each firm's client management practices, an overview of each organization, and the potential compatibility of each firm with the Village staff.

Both firms were asked to present a project schedule and to complete a supplemental cost information form for potential future onsite services. InControl presented a proposed project schedule with final project completion approximately 16 months from project award; L.W. Allen presented a schedule with an 8 month completion schedule. In addition, L.W. Allen (Madison, WI) presented a service trip cost of \$513 compared to \$1,957 for InControl (Blaine, MN) due to the shorter travel distance to Jackson. L.W. Allen also presented a map of other client communities in the state, including a number of neighboring communities including the Village of Jackson's Water Utility, and noted that their service practice is to combine trips so as to save on service call costs whenever possible. This information is summarized below.

	InControl, Inc.	L.W. Allen, Inc.
Project Start Date (Site Visit)	May, 2017	February 21, 2017
Final Startup, Punch List, and Operator Training	June 29, 2018	October 12, 2017
Travel Time for Service Technician to Jackson	5.0 Hours	1.5 Hours
Hourly Rate for Technician / programmer	\$135	\$95 / \$125 / \$150 Tech / Sr. Tech / Programmer
Non-Emergency Trip: Lump Sum trip cost	\$1,957.00	\$513
Hourly Rate at Site	\$135	\$95 / \$125 / \$150
Annual Percentage Increase	2.0%	1.5%

The general consensus of the presentations was that L.W. Allen, Inc. would be the best fit for this project. The contract allows acceptance of the most qualified proposal based on technology presented, past performance, ability to meet the project schedule, or any other criteria critical to the project. L.W. Allen, Inc. is a very qualified firm, with experience and capacity to complete the project.

As presented in the table above, L.W. Allen also offers the Village a more local option for future service of this system. They are a slightly larger company, and focus mainly on the Wisconsin water and wastewater market. They have worked with the Village's water and wastewater utilities in the past, and have reportedly done quality work at a fair price.

Finally, L.W. Allen has also presented a project schedule that allows the Village to have the project completed yet this fall. L.W. Allen has presented a 34 week schedule, compared to InControl's 64 week schedule for completion. The Village continues to have problems with the existing SCADA system, and the more timely replacement of the existing SCADA system should greatly reduce the service calls associated with this aging system. In 2016, the Village spent over \$8,300 on 5 service calls to replace failed SCADA equipment at the WWTF.

We recommend awarding the project to L.W. Allen, Inc. for \$506,231, to include the Base Bid and Selected Alternate Bid items as highlighted on the attached Bid Tabulation. The final recommended award amount will depend on our discussion at the Village Public Works meeting. We also recommend that the Village considers providing a contingency fund for the project due to the age of the system and limited documentation of certain panels.

If you have any questions, please feel free to contact me.

Very truly yours,
TOWN & COUNTRY ENGINEERING, INC.



Gregory J. Droessler, P.E.
Vice President

cc: Mr. Steve Muther, P.E., Muermann Engineering, LLC (W227 N16867 Tillie Lake Court,
Suite 202, Jackson, WI 53037)

GJD:sai

J:\JOB#SJackson\JK-03-09 WWTP SCADA Upgrades\05 Construction Administration\5.1 Bidding\Recommendation Ltr.docx

Project: 2016 Wastewater Treatment Facility SCADA Upgrade; Village of Jackson
 Engineer's Project Number: JK 03 December 20, 2016 at 2:00 p.m., local time

ITEM NO.	DESCRIPTION OF WORK	InControl, Inc. Blaine, MN	L.W. Allen, Inc. Madison, WI	Automatic Systems Co. St. Paul, MN	Wunderlich-Malec Services, Inc. Eden Prairie, MN
BASE BID		\$382,234.00	\$428,260.00	\$455,256.00	\$464,100.00
Allowance Item A		\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00
Allowance Item B		\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00
Total Base Bid and Allowance		\$422,234.00	\$468,260.00	\$495,256.00	\$504,100.00
Alternate Bid Items					
Alternate A-01	Replace all plug-in relays in LCP-A with new relays	\$752.00	\$95.00	\$1,425.00	\$800.00
Alternate A-02	Replace existing hard-wired alarm dialer at panel LCP-A with a new 4-channel unit to be used as backup alarm dialer	\$3,060.00	\$1,550.00	\$5,185.00	\$2,655.00
Alternate A-03	Replace 3 existing 40 HP Raw Sewage Pump VFDs and backup contactors in MCC-RS with new Ethernet connected VFDs	\$37,770.00	\$39,627.00	\$37,620.00	\$48,500.00
Alternate B-01	Remove existing HMI display and replace existing Micro PLCs with new MicroLogix 1400 PLCs	\$3,177.00	\$8,430.00	\$7,300.00	\$10,800.00
Alternate C-01	Replace all plug-in relays in LCP-C with new relays	\$633.00	\$156.00	\$995.00	\$400.00
Alternate D-01	Replace all plug-in relays in LCP-D with new relays	\$873.00	\$238.00	\$1,335.00	\$800.00
Alternate D-02	Replace existing MCC-D with new construction. Provide back wiring functionally per Sequence of Operations	\$21,428.00	\$13,240.00	\$16,922.00	\$26,755.00
Alternate D-03	Replace existing cover height monitoring switches with ultrasonic level sensors	\$6,530.00	\$13,800.00	\$13,227.00	\$13,975.00
Alternate E-01	Replace all plug-in relays in LCP-E with new relays	\$1,173.00	\$230.00	\$1,425.00	\$1,000.00
Alternate G-01	Replace all plug-in relays in LCP-G with new relays	\$253.00	\$80.00	\$950.00	\$200.00
Alternate H-01	Replace all plug-in relays in LCP-H with new relays	\$1,079.00	\$278.00	\$1,675.00	\$1,100.00
Alternate S-01	Wonderware InTouch Machine Edition (ME) in lieu of Wonderware InTouch w/ Remote Desktop Services (RDS)	-\$20,169.00	-\$7,430.00	-\$2,100.00	-\$13,250.00
Alternate S-02	Allmax Operator 10 in lieu of HachWIMS	-\$18,636.00	\$3,640.00	-\$4,400.00	-\$20,000.00
Alternate P-01	Provide plant-wide Wi-Fi communication network to support local access to the SCADA system via Ruckus equipment	\$13,646.00	\$21,400.00	\$30,938.00	\$25,000.00

Base Bid + Selected (Highlighted) Alternates, including those listed below	\$495,785.00	\$506,231.00	\$576,015.00	\$600,285.00
Variance from Low Bid	\$ -	\$ 10,446.00	\$ 80,230.00	\$ 104,500.00

Contractor Alternates

Automatic Systems Co.

Spare N-Tron 9000 Series Switch. **Add \$5,300**

Wunderlich-Malec Services, Inc.

Voluntary Alternate A-03: Raw Sewage Pump VFD replacement. Alternate A-03 requires the replacement of the existing MCC-RS with a new MCC-RS. Since it appears that the existing MCC-RS is one 60" wide section, replacing it will require either temporary pumping or relocating the existing MCC to allow installation of a new MCC-RS. We offer an alternative to retain the existing MCC structure and replace the internal components by supplying input fuses, an input isolation contactor, a variable frequency drive, an output contactor, and a bypass contactor with solid state overload relay. Accepting this alternate will result in a reduction in the quoted price of Alternate A-03 of - \$16,330.00. The price will drop from \$48,500.00 to \$32,170.00.

L.W. Allen

Base Bid: Provide N-Tron 708-FX Fiber Ethernet Switch to operate in a fiber ring topology. Furnish and install two (2) wall mounted ABB ACS-550 VFD's with ethernet in lieu of specified RAS pump VFDs. **Deduct - \$28,642.00** from listed Base Bid price.

Alternate A-03: Replace three (3) VFDs with ABB VFDs instead of Allen Bradley. **Deduct -\$3,906** from listed alternate bid price

Alternate D-02: Replace MCC-D with new Cutler Hammer MCC. **Add \$1,225** to listed alternate bid price

Alternate P-01: Provide plant-wide WiFi network to support local access to SCADA. Furnish and install 10 PoE wireless access point devices at building locations. **Deduct -\$12,115** from listed alternate price

Alternate A-04: Furnish a 24 month project warranty in lieu of 12 month warranty and Performance Bond. **Add \$4,640.**

InControl

At the presentation, InControl extended the completion scheduled to 64 weeks due to projects they were awarded after the Jackson bid submittal. They have offered a 24 month warranty in lieu of the payment and performance bonds

TREASURERS REPORT

(Depository Accounts)

December 31, 2016

	BALANCE 11/30/2016	BALANCE 12/31/2016
<u>GENERAL FUND:</u>		
GENERAL CHECKING	\$816,079.65	\$6,441,796.32
PARK FEES	\$98,864.27	\$99,752.57
FIRE/RESCUE RESERVE	\$5,822.47	\$5,824.71
EMS FUNDING ESCROW	\$5,891.89	\$5,894.16
HIPPA ACCOUNT	\$565,870.39	\$517,234.14
CREDIT CARD ACCOUNT	\$165,508.07	\$140,231.99
POLICE & FIRE IMPACT FEES	\$247,346.92	\$246,383.09
ANTIQUE FIRE TRUCK	\$4,983.85	\$4,983.85
TOTAL GENERAL FUND	\$1,910,367.51	\$7,462,100.83
<u>WATER UTILITY:</u>		
WATER SPECIAL REDEMPTION FUND	\$847.22	\$847.55
CASH	\$987,846.26	\$1,119,883.95
WATER UTILITY DEPRECIATION FUND	\$21,658.12	\$21,666.47
WATER UTILITY RESERVE	\$112,611.38	\$112,654.77
WATER IMPACT FEES	\$248,476.65	\$251,032.98
TOTAL WATER UTILITY	\$1,371,439.63	\$1,506,085.72
<u>SEWER UTILITY:</u>		
SEWER DEPRECIATION FUND	\$5,446.28	\$5,448.38
SEWER UTILITY RESERVE	\$70,329.55	\$70,356.65
DNR REPLACEMENT FUND	\$949,502.94	\$942,131.41
SEWER SPECIAL REDEMPTION FUND	\$2,367.95	\$2,368.86
CASH	\$600,108.57	\$648,265.95
SO. INTERCEPTOR IMPACT FEE	\$30,363.41	\$30,504.14
SEWER SERVICE FEES	\$1,563,158.04	\$1,575,763.24
TOTAL SEWER UTILITY	\$3,221,276.74	\$3,274,838.63
<u>CDA FUND:</u>		
CDA FUND	\$192,180.89	\$192,254.95
TOTAL CDA FUND	\$192,180.89	\$192,254.95
GRAND TOTAL:	\$6,695,264.77	\$12,435,280.13

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right of Way Plat
Section No. 5	Plan and Profile
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
Section No. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 26



PRELIMINARY
01/24/2017

VILLAGE OF JACKSON

PLAN OF PROPOSED IMPROVEMENT

CHATEAU DRIVE

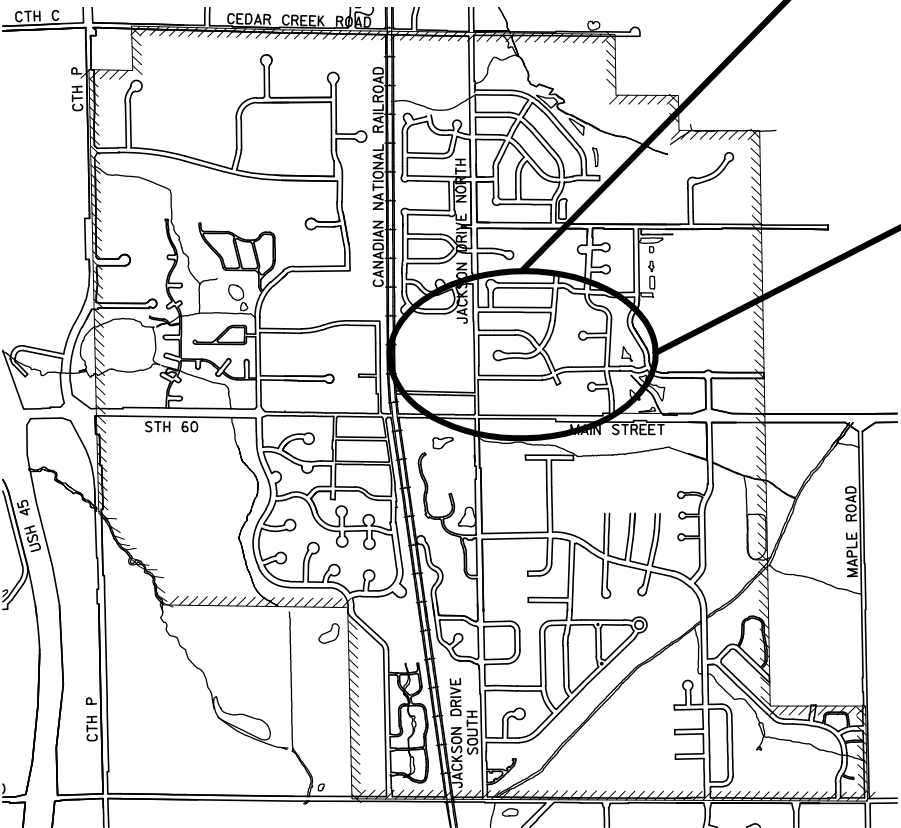
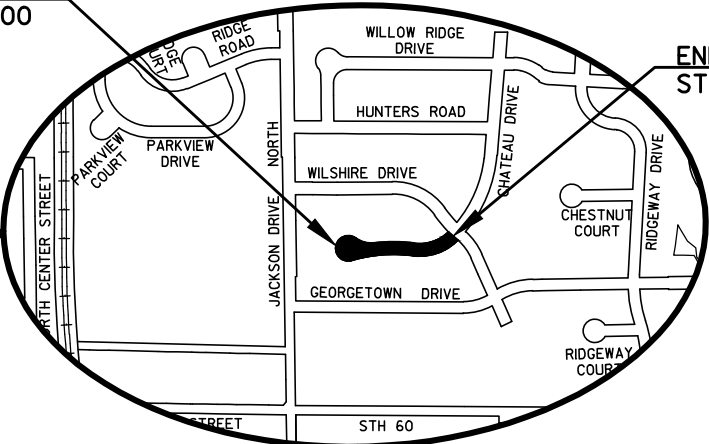
ROADWAY & UTILITY RECONSTRUCTION

2017

PROJECT 161031

BEGIN PROJECT
STA 10+00.00

END PROJECT
STA 16+12.40



LAYOUT
SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.116 MI

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	////
PROPERTY LINE	---
LOT LINE	---
LIMITED HIGHWAY EASEMENT	---
EXISTING RIGHT OF WAY	---
PROPOSED OR NEW R/W LINE	---
SLOPE INTERCEPT	---
REFERENCE LINE	---
EXISTING CULVERT	---
PROPOSED CULVERT (Box or Pipe)	---
COMBUSTIBLE FLUIDS	CAUTION
MARSH AREA	---
WOODED OR SHRUB AREA	---

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	95.36
CULVERT (Profile View)	---
UTILITIES	
ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	SS
TELEPHONE	T
WATER	W
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

ORIGINAL PLANS PREPARED BY

GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac
95 South Pioneer Road, Suite 500 • Fond du Lac, WI 54835
(920) 924-5720 • Fax (920) 924-5725

(Date) JEFFREY A. CHVOSTA, PE

PRE-1

E

GENERAL NOTES

ALL CURB AND GUTTER RADII ARE MEASURED TO FACE OF CURB.

DEGREE OF CURVE IS BASED ON ARC DEFINITION.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS, SIDEWALKS AND PAVEMENTS AT THE REMOVAL LIMITS.

SAWCUT LOCATIONS SHOWN ON THE PLANS ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE DENSE, HMA PAVEMENT OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE MATERIAL SHOWN ON THE PLAN IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATION AND LAYOUT OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

EXISTING TREES NOT MARKED FOR REMOVAL SHALL BE PRESERVED AND PROTECTED FROM CONSTRUCTION DAMAGE. AVOID DAMAGE TO ROOTS AND OVERHEAD BRANCHES.

TOPSOIL, FERTILIZER, SEED AND MULCH AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE PLACED ON ALL DISTURBED AREAS, EXCLUSIVE OF THE AREA OCCUPIED BY THE NEW PAVEMENTS, SIDEWALKS, ENTRANCES, AND RELATED STRUCTURES.

SECTIONS AS SHOWN ON THE CROSS-SECTIONS INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED.

ANY EXISTING SIGN IMPACTED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REMOVED AND STOCKPILED BY THE CONTRACTOR INCIDENTAL TO OTHER ITEMS.

CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND STORAGE OF EXISTING MAILBOXES, COORDINATION WITH THE VILLAGE OF JACKSON AND THE U.S. POST OFFICE FOR TEMPORARY MAILBOXES, INSTALLATION OF TEMPORARY MAILBOXES AND RE-INSTALLATION OF MAILBOXES AFTER CONSTRUCTION IS COMPLETE. ALL COTS ASSOCIATED WITH MAILBOX REMOVAL AND REPLACEMENT SHALL BE INCIDENTAL TO OTHER ITEMS.

INLET PROTECTION SHALL BE USED ON ALL NEW INLETS AND THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE PROJECT.

EROSION CONTROL ITEMS SHOWN ARE APPROXIMATE, THE EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL "+" STATIONS REFERENCED ON PLANS ARE REFERENCE LINE STATION VALUES.

REMOVAL OF EXISTING SANITARY SEWER AND WATER MAIN PIPE SHALL BE INCIDENTAL TO NEW SANITARY AND WATER MAIN CONSTRUCTION.

SANITARY SEWER MAIN SHALL BE PVC SDR-35.

SANITARY SEWER LATERALS SHALL BE 6" PVC SDR-35 AND SHALL BE RECONNECTED TO EXISTING LATERAL AT THE R/W LINE.

STORM SEWER MAIN SHALL BE RCP CLASS III (MINIMUM) OR AS NOTED ON THE PLANS.

STORM SEWER LATERALS SHALL BE 4" PVC SDR-35 AND SHALL BE CONSTRUCTED TO THE SUMP PUMP DISCHARGE LOCATION AT THE HOUSE. CONTRACTOR TO VERIFY LATERAL LOCATION WITH THE PROPERTY OWNER AND VILLAGE PRIOR TO CONSTRUCTION.

WATER MAIN SHALL BE AWWA C-900.

WATER SERVICES SHALL BE 1-1/4" HDPE AND SHALL BE RECONNECTED TO THE EXISTING SERVICE AT THE R/W LINE. THE CURB STOP SHALL BE PLACED AT THE R/W LINE. TRACER WIRE IS REQUIRED ON ALL SERVICES AND SHALL RISER UP TO THE FINISHED GRADE AT THE CURB STOP.

REMOVAL OF EXISTING HYDRANTS SHALL BE INCIDENTAL TO NEW WATER MAIN CONSTRUCTION. THE HYDRANTS SHALL REMAIN PROPERTY OF THE VILLAGE.

ALL GRADE BREAKS OR DEFLECTIONS IN THE WATER MAIN GREATER THAN 1% SHALL BE ACHIEVED BY MECHANICAL FITTING.

ALL VALVE BOXES SHALL BE INSTALLED UPON THE VALVE WITH THE USE OF A VALVE BOX "ADAPTOR II" AS MANUFACTURED BY ADAPTOR INC., OR AN APPROVED EQUAL. THE ADAPTOR SHALL BE INSTALLED IN LIEU OF HARDWOOD BLOCKING AND SHALL BE INCIDENTAL TO THE VALVE BOX INSTALLATION.

ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
AH	AHEAD
ASP	ASPHALT
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
CC	CENTER OF CURVATURE
CE	COMMERCIAL ENTRANCE
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CS	CURVE SPIRAL, THE POINT OF CHANGE IN ALIGNMENT FROM CURVE TO SPIRAL
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
E	EXTERNAL DISTANCE FROM MIDPOINT OF CIRCULAR CURVE FROM ANGLE INTERSECTION
EB	EASTBOUND
ELEV	ELEVATION
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
HP	HIGH POINT
HT	HEIGHT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LP	LOW POINT
Ls	LENGTH OF SPIRAL
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NOM	NOMINAL
NORM	NORMAL
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SOUTHBOUND
SC	SPIRAL CURVE, THE POINT OF CHANGE IN ALIGNMENT FROM SPIRAL TO CURVE
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SEG	SEGMENT
SF	SQUARE FOOT
SS	STORM SEWER
ST	SPIRAL TANGENT, THE POINT OF CHANGE IN ALIGNMENT FROM SPIRAL TO TANGENT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
TS	TANGENT SPIRAL, THE POINT OF CHANGE IN ALIGNMENT FROM TANGENT TO SPIRAL
TYP	TYPICAL
V	VELOCITY OR DESIGN SPEED
VC	VERTICAL CURVE
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPRC	POINT OF VERTICAL REVERSE CURVE
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND
WCL	WISCONSIN CENTRAL LTD.



Dial 811 or (800)242-8511
www.DiggersHotline.com

SANITARY SEWER & WATER MAIN

* VILLAGE OF JACKSON
N168, W20733 MAIN STREET
JACKSON, WI 53037
PHONE: (262) 677-9001
ATTN: BRIAN KOBER
EMAIL: DIRPUBWKS@VILLAGEOFJACKSON.COM

UTILITIES

COMMUNICATIONS

* CHARTER COMMUNICATIONS
2312 CONTINENTAL DRIVE
WEST BEND, WI 53095
PHONE: (262) 306-8756 EXT. 20702
MOBILE: (920) 375-6194
ATTN: TOM HARYCKI
EMAIL: THARYCKI@CHARTERCOM.COM

ELECTRIC

* WE ENERGIES - LOCAL
245 SAND DRIVE
WEST BEND, WI 53095
PHONE: (262) 338-7662
MOBILE: (262) 322-1824
ATTN: AL SCHMITT
EMAIL: ALAN.SCHMITT@WE-ENERGIES.COM

COMMUNICATIONS

* AT&T - WISCONSIN
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: (262) 896-7522
MOBILE: (414) 412-7047
ATTN: JEFF OLDENBURG
EMAIL: J02376@ATT.COM

* DENOTES MEMBER OF DIGGERS HOTLINE

DESIGN CONTACT

GREMMER & ASSOCIATES, INC.
93 S. PIONEER ROAD, SUITE 300
FOND DU LAC, WI 54935
PHONE: (920) 924-5720
ATTN: JEFFREY CHVOSTA, PE
EMAIL: J.CHVOSTA@GREMMERASSOCIATES.COM

GAS

* WE ENERGIES - LOCAL
5400 NORTH GREEN BAY AVENUE
MILWAUKEE, WI 53209
PHONE: (414) 944-5574
ATTN: NICK ERNSTER
EMAIL: NICHOLAS.ERNSTER@WE-ENERGIES.COM

VILLAGE OF JACKSON CONTACT

N168, W20733 MAIN STREET
JACKSON, WI 53037
PHONE: (262) 677-9001
ATTN: BRIAN KOBER
EMAIL: DIRPUBWKS@VILLAGEOFJACKSON.COM

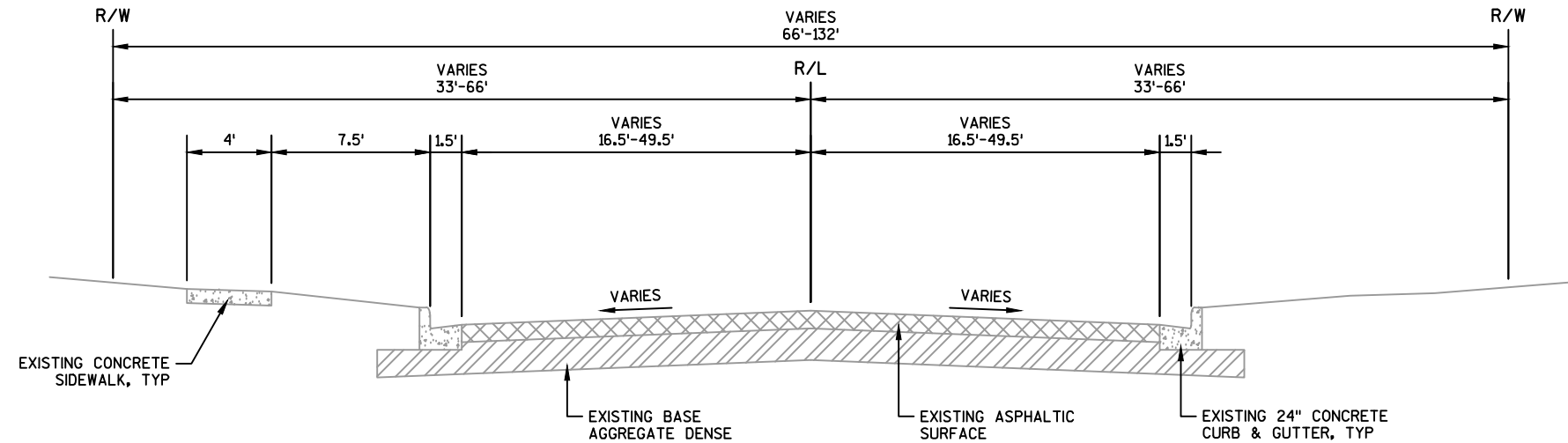
CONSTRUCTION SEQUENCE

- COMPLETE SLOPE STAKING TO AVOID EXCESSIVE CONSTRUCTION DISTURBANCE
- INSTALL TEMPORARY EROSION CONTROL MEASURES (INLET PROTECTION). ADD TEMPORARY EROSION CONTROL MEASURES AS GRADING WORK PROGRESSES. TOPSOIL STRIPPING SHALL NOT BEGIN UNTIL EROSION CONTROL MEASURES ARE IN PLACE.
- STRIP TOPSOIL AND CLEAR & GRUB IN A PROGRESSIVE MANNER THROUGHOUT THE PROJECT, AS NEEDED FOR GRADING WORK. CONSTRUCT PERIMETER CONTROL AROUND ANY STOCKPILES AND PLACE TEMPORARY SEEDING AS REQUIRED. LIMIT THE SIZE OF DISTURBED AREAS TO THAT WHICH CAN BE READILY STABILIZED.
- COMPLETE GRADING WORK, PLACING PERMANENT EROSION CONTROL MEASURES AS PRACTICAL.
- CONSTRUCT ROADWAY AND ADJUST INLET PROTECTION AS NECESSARY.
- COMPLETE REMAINING TOPSOIL, LANDSCAPING, AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT. REMOVE ACCUMULATED SEDIMENT FROM TEMPORARY EROSION CONTROL MEASURES AND REMOVE AND DISPOSE OF USED EROSION CONTROL DEVICES AFTER 70% VEGETATIVE STABILIZATION HAS OCCURRED.

BENCH MARKS

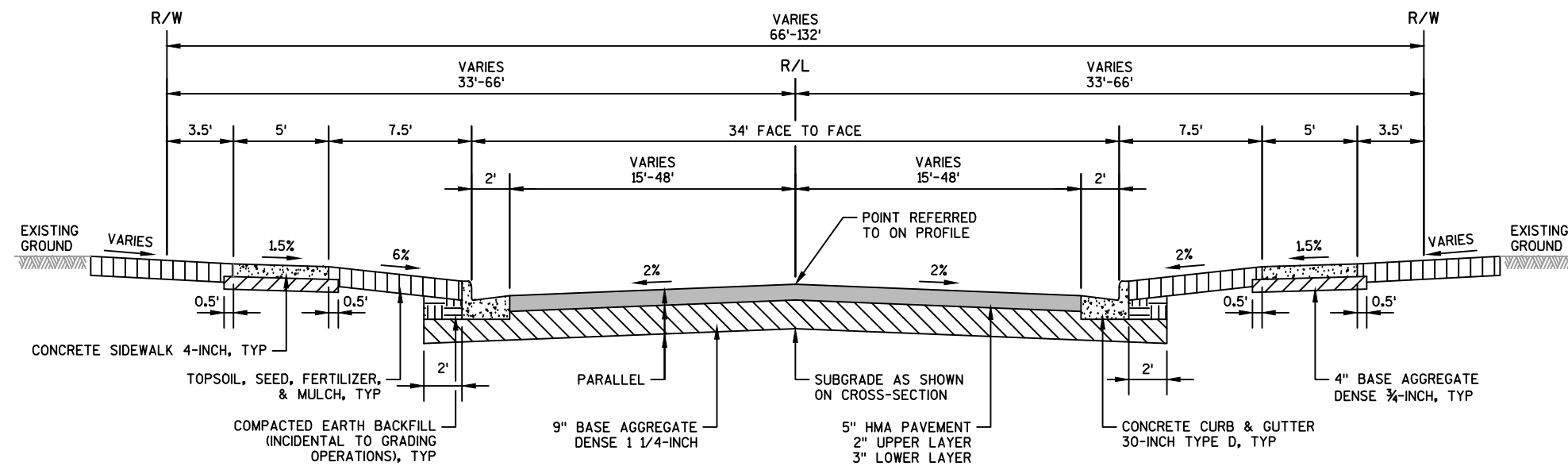
BM	DESCRIPTION	ELEVATION
J	BURY BOLT ON FLANGE OF HYDRANT, SOUTHEAST CORNER OF CHATEAU DRIVE AND WILSHIRE DRIVE	877.19
K	BURY BOLT ON FLANGE OF HYDRANT, SOUTH SIDE OF CHATEAU DRIVE, 250' WEST OF WILSHIRE DRIVE	878.31
L	BURY BOLT ON FLANGE OF HYDRANT, WEST END OF CUL-DE-SAC OF CHATEAU DRIVE	880.38

**VERTICAL DATUM REFERENCED TO NGVD29.



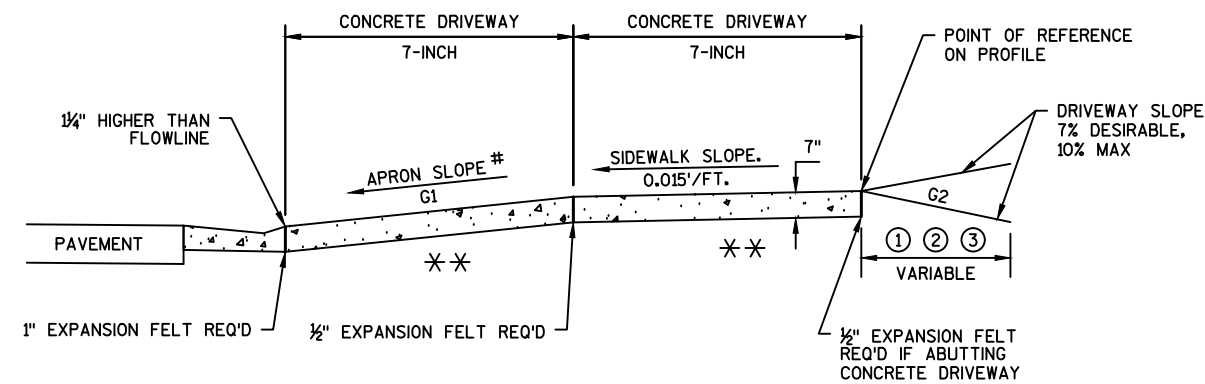
TYPICAL EXISTING SECTION

CHATEAU DRIVE
STA 10+00 - STA 16+12



TYPICAL FINISHED SECTION

CHATEAU DRIVE
STA 10+00 - STA 16+12



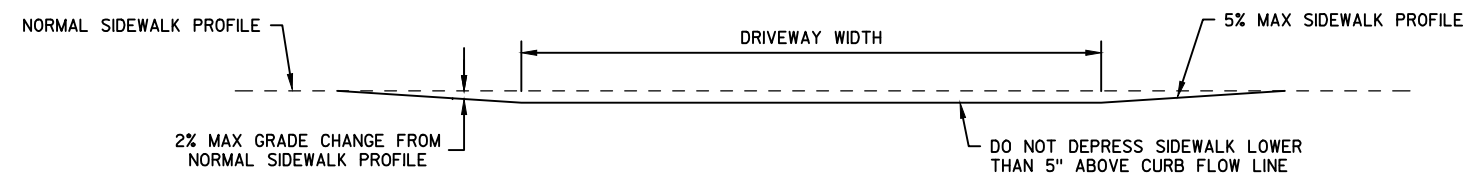
TYPICAL SIDEWALK SECTION

- ① — 7" CONCRETE DRIVEWAY
 ② — 6" BASE AGG. DENSE 3/4-INCH
 ③ — 6" BASE AGG. DENSE 3/4-INCH
 BASE WITH 3" ASPHALTIC SURFACE
 ** = 6" BASE AGG. DENSE 3/4-INCH
 REQ'D UNDER CONCRETE DRWY

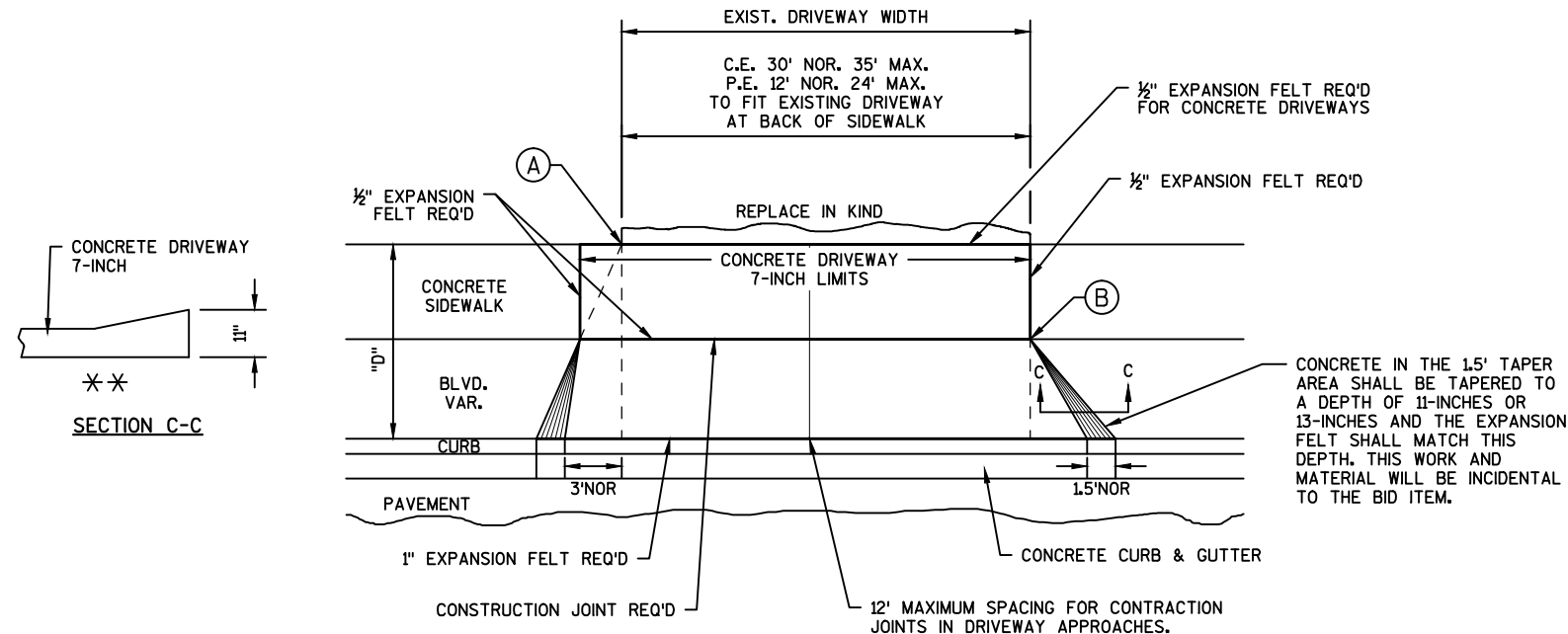
#	TERRACE WIDTH	APRON SLOPE (G)		
		MIN %	DESIRABLE %	MAX %
	3 FT	7.0	8.5	9.0
	4 FT	5.0	7.0	9.0
	5 FT	4.0	7.0	9.0
	6 FT	4.0	7.0	9.0
	7 FT	3.5	7.0	9.0
	8 FT	3.0	7.0	9.0

NOTE: ALGEBRAIC DIFFERENCE BETWEEN
TANGENT GRADES G1 & G2 TO NOT
EXCEED 15%

DEPRESS SIDEWALK PROFILE IF
DRIVEWAY APRON EXCEEDS MAX
SLOPE



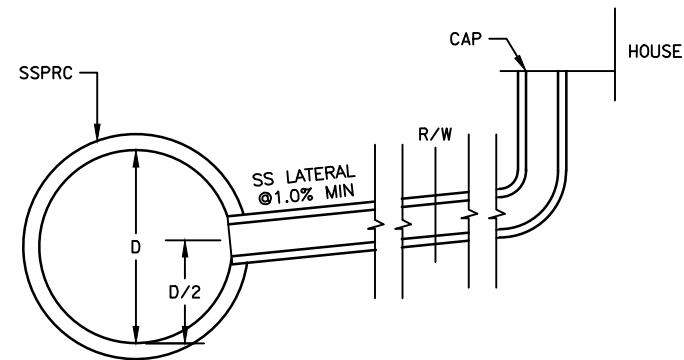
DEPRESSED SIDEWALK PROFILE DETAIL



- (A) WHEN "D" IS 13' OR LESS, ALIGN
TAPER WITH BACK OF SIDEWALK
 (B) WHEN "D" IS GREATER THAN 13',
ALIGN TAPER WITH FRONT OF
SIDEWALK

PLAN VIEW

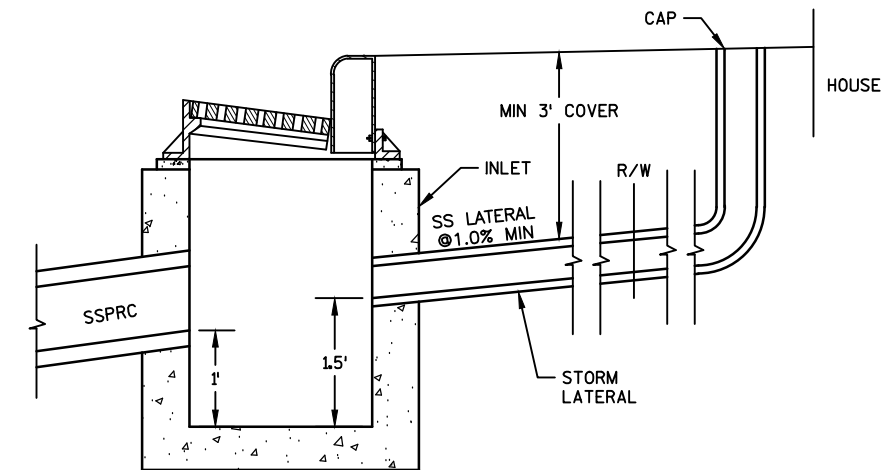
URBAN ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER



STORM SEWER PIPE CONNECTION

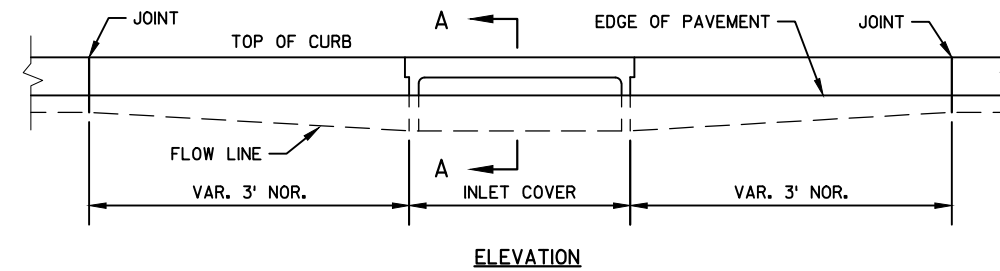
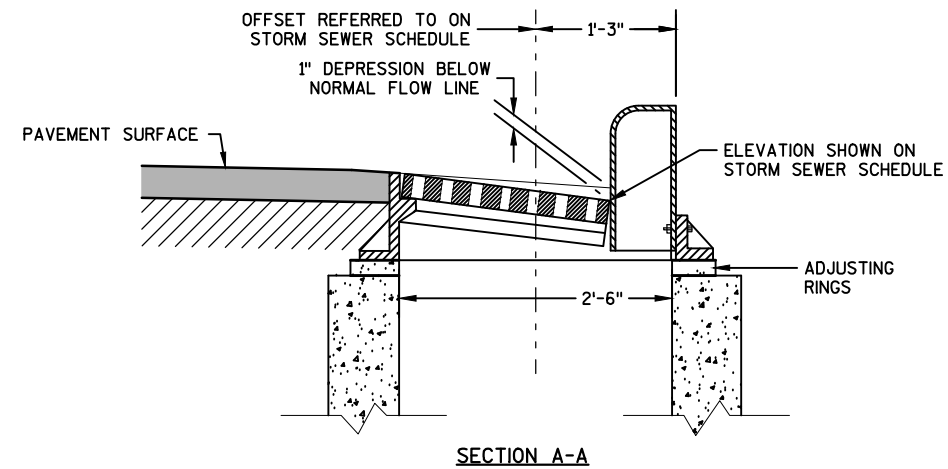
NOTE: ALL LABOR AND MATERIALS NECESSARY FOR CONNECTION TO SS SHALL BE INCIDENTAL TO THE BID ITEM OF STORM SEWER LATERAL.

MINIMUM 3 FEET OF COVER OVER STORM SEWER LATERAL.



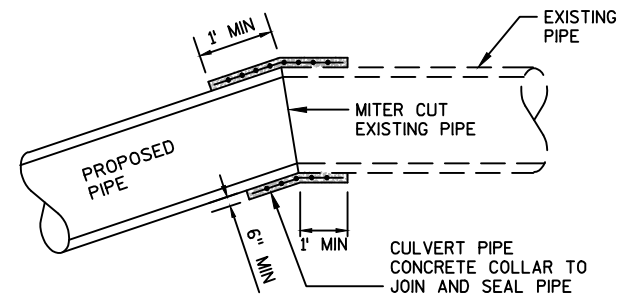
INLET CONNECTION

STORM LATERAL DETAIL

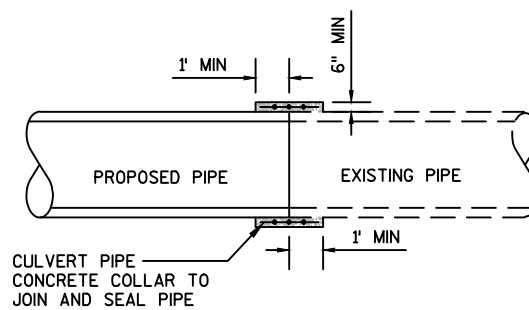


DETAIL OF CURB AND GUTTER AT INLETS

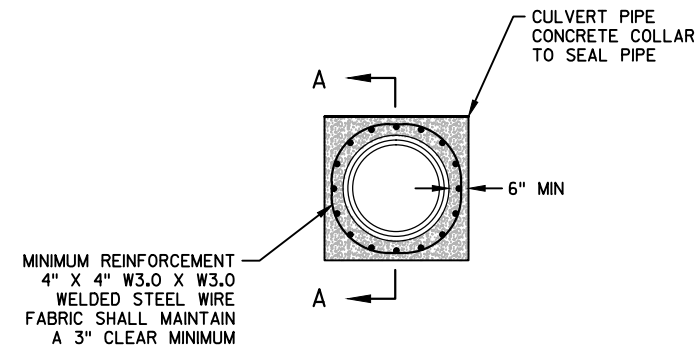
2



SECTION A-A
MITERED CUT

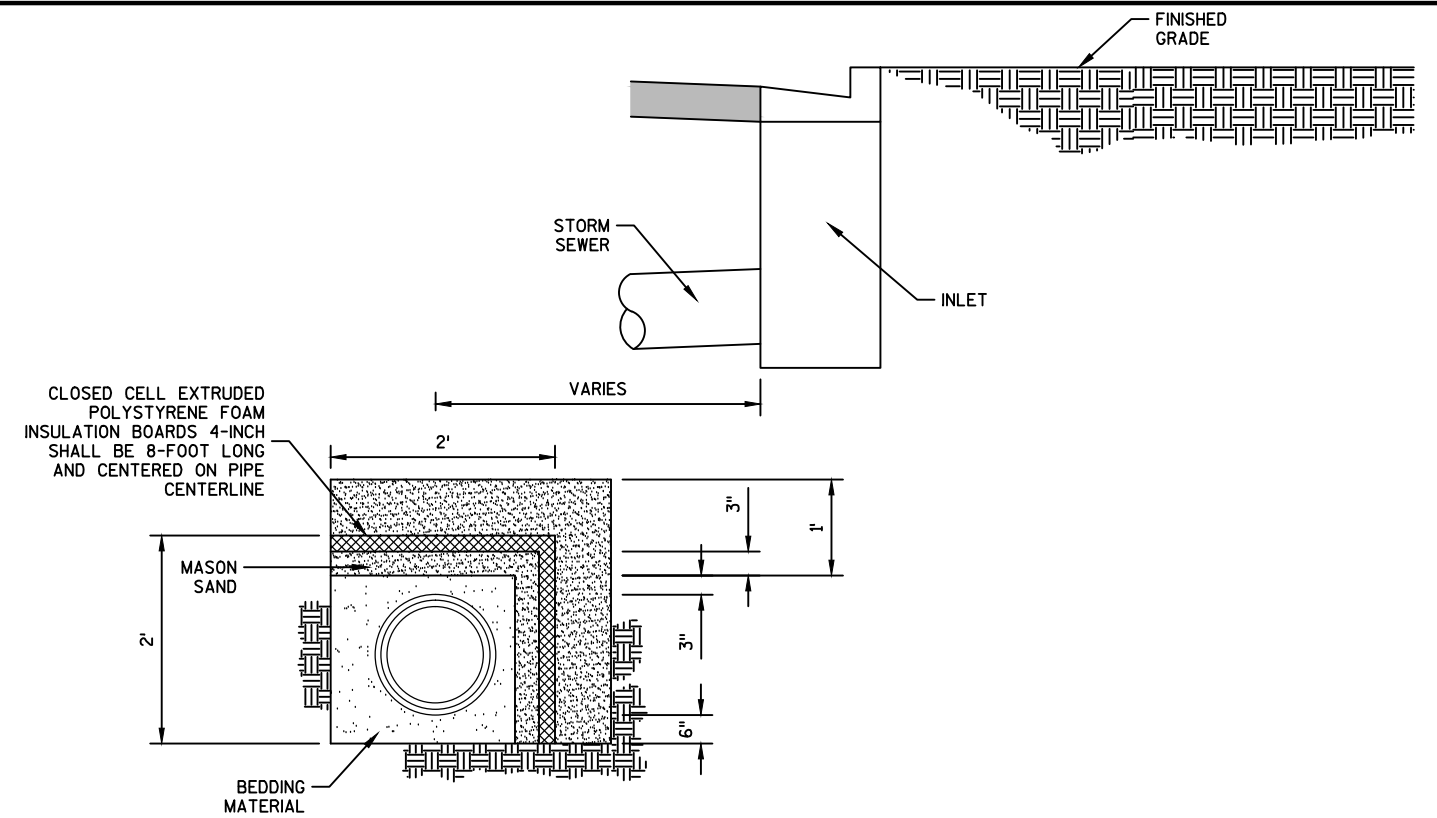


SECTION A-A
STRAIGHT CUT

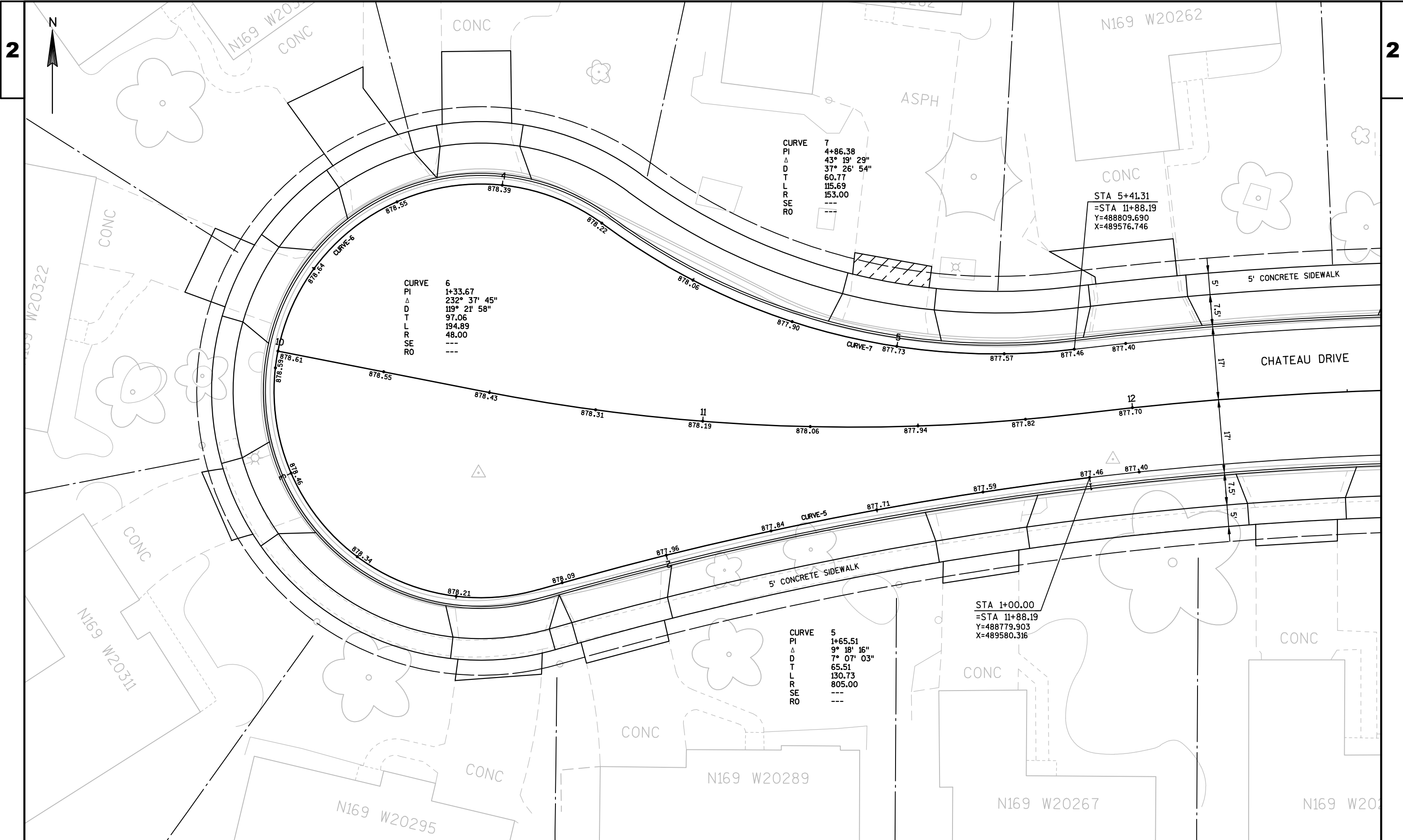


CULVERT PIPE CONCRETE COLLAR DETAIL

2



WATER MAIN INSULATION DETAIL



2

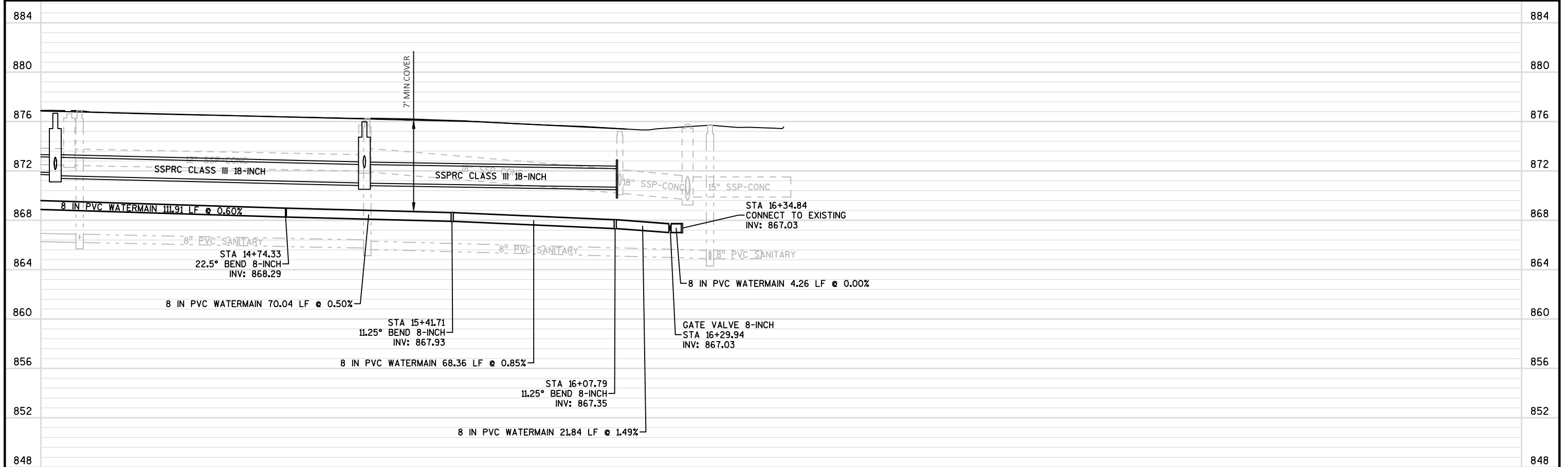
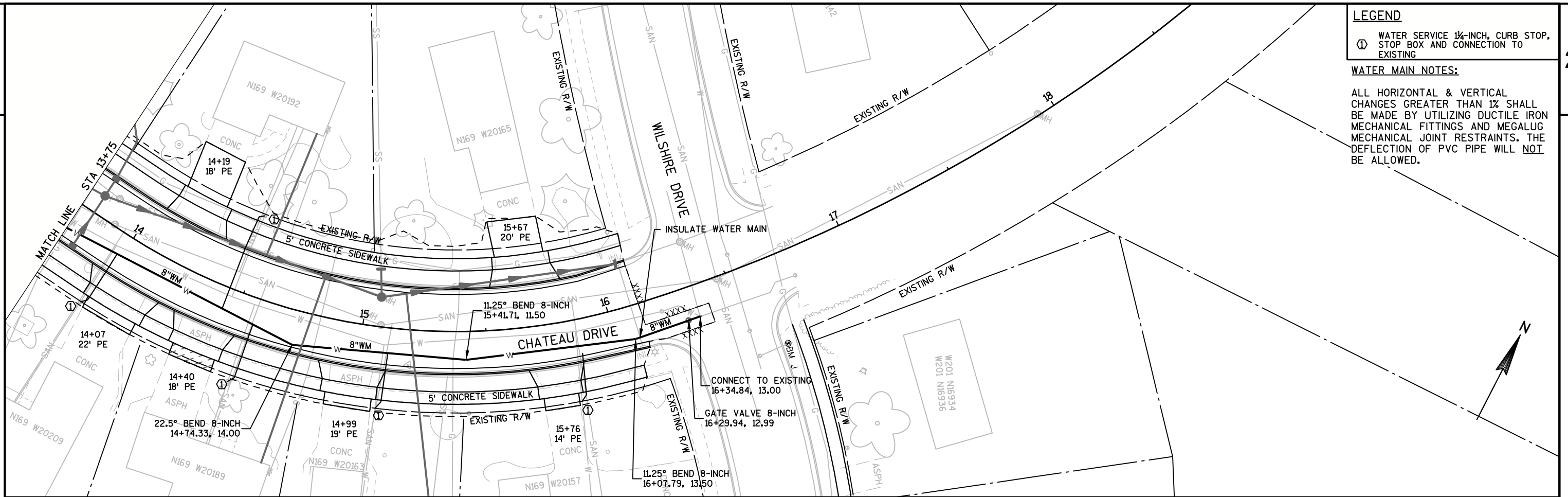


ALL HORIZONTAL & VERTICAL
CHANGES GREATER THAN 1% SHALL
BE MADE BY UTILIZING DUCTILE IRON
MECHANICAL FITTINGS AND MEGALUG
MECHANICAL JOINT RESTRAINTS. THE
DEFLECTION OF PVC PIPE WILL NOT
BE ALLOWED.

2 |



WISDOT/CADDS SHEET 41



LEGEND
④ STORM SEWER LATERAL 4-INCH AND CONNECTION TO EXISTING

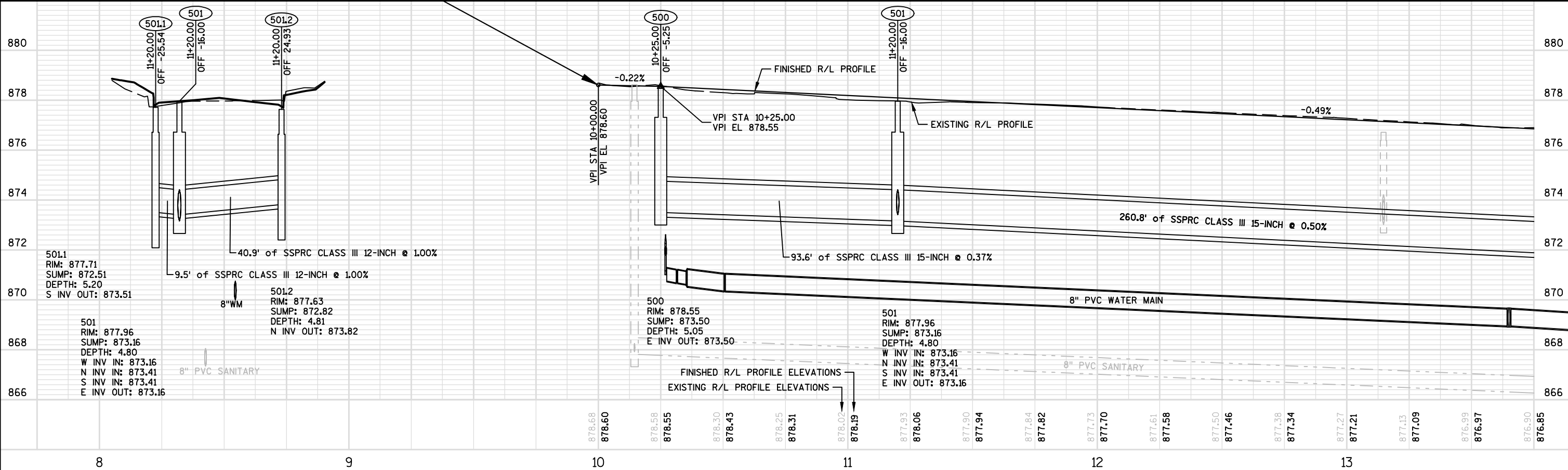
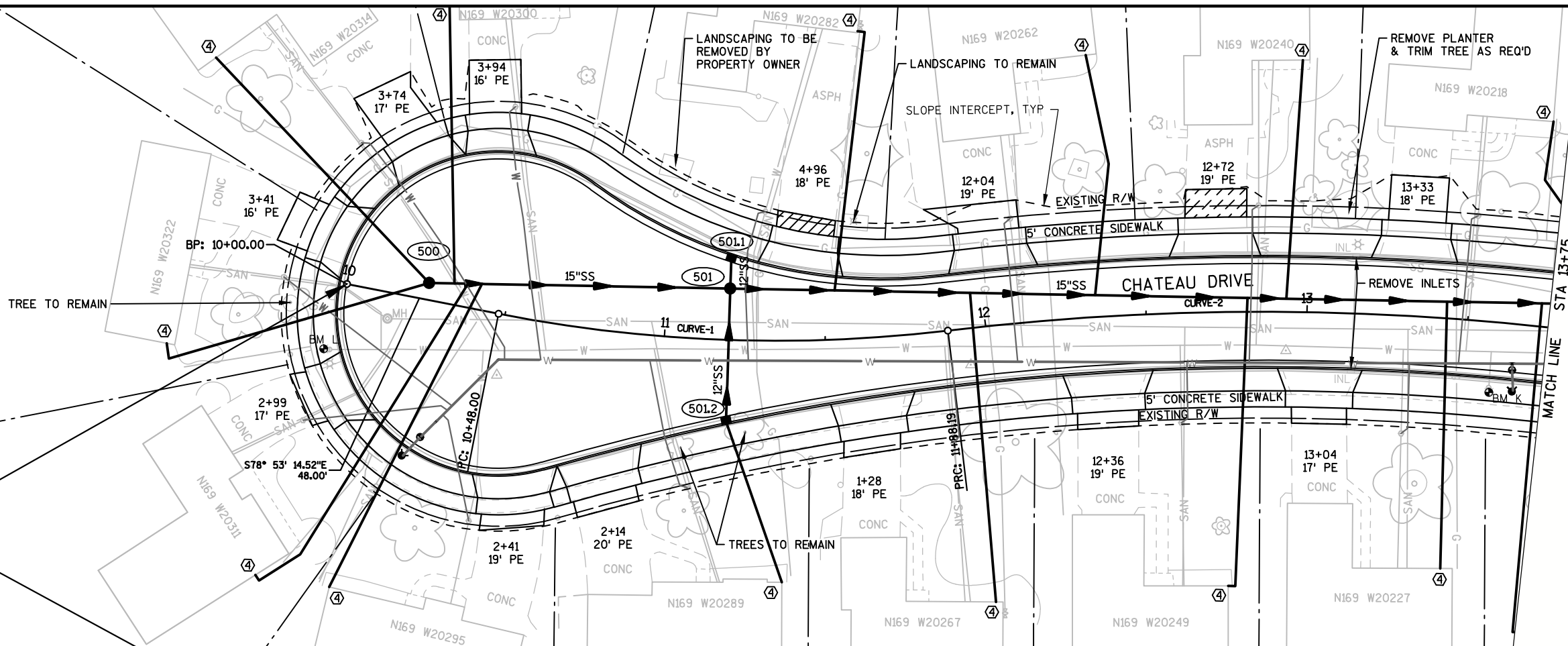
EROSION CONTROL NOTES:

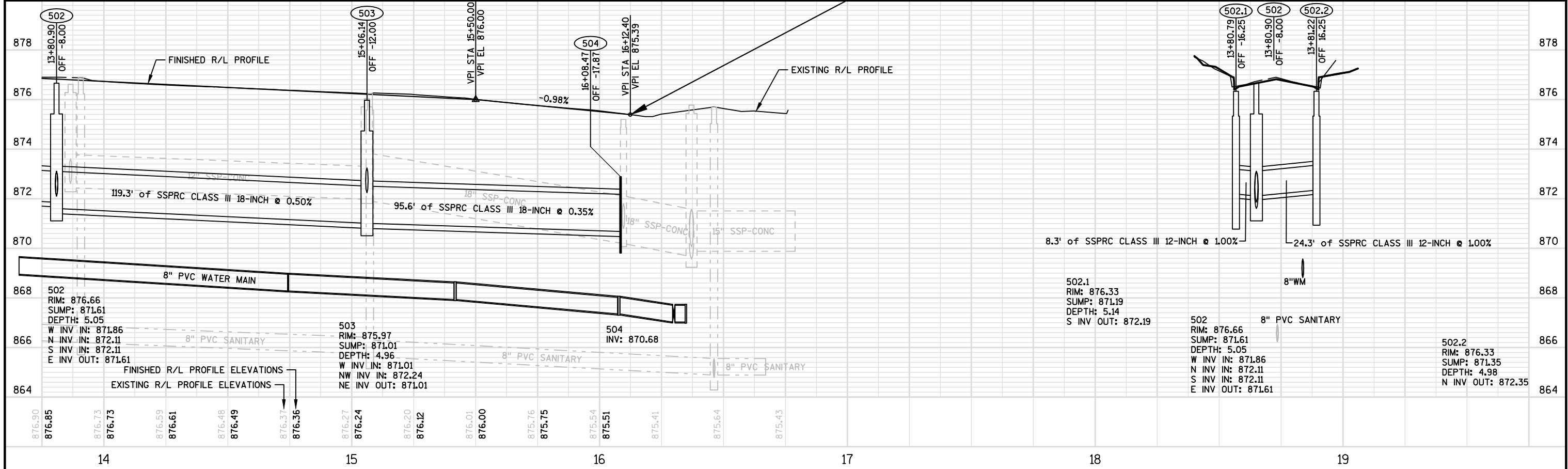
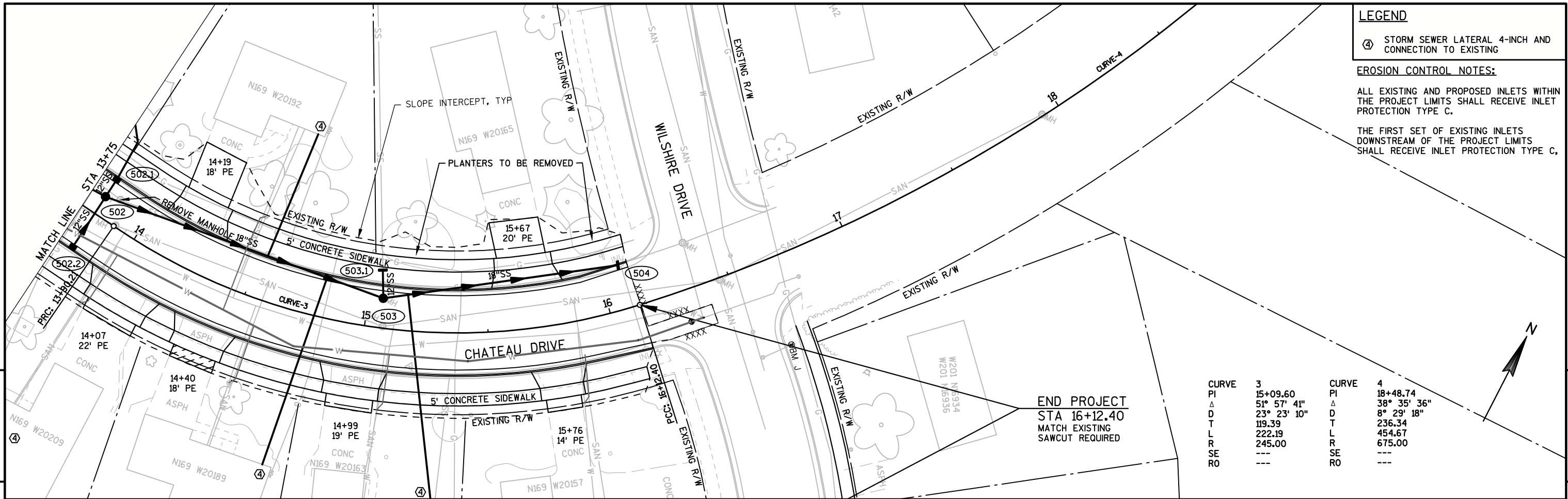
ALL EXISTING AND PROPOSED INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION TYPE C.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION TYPE C.

CURVE	1	CURVE	2
PI	11+18.68	PI	12+89.72
Δ	17° 56' 48"	Δ	14° 06' 56"
D	12° 48' 04"	D	6° 59' 14"
T	70.68	T	101.52
L	140.19	L	202.02
R	447.58	R	820.00
SE	---	SE	---
RO	---	RO	---

BEGIN PROJECT
STA 10+00.00
Y=488809.260
X=489391.906
MATCH EXISTING
SAWCUT REQUIRED

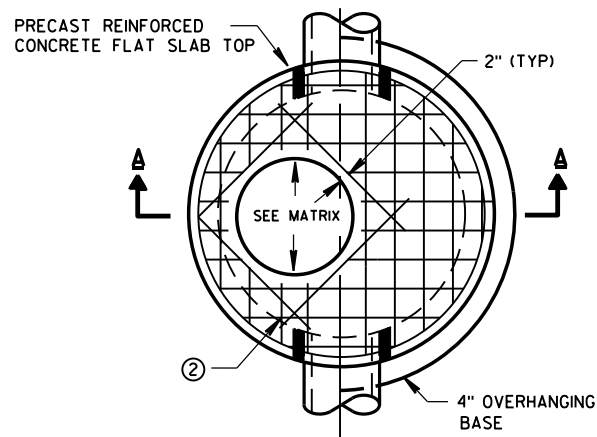




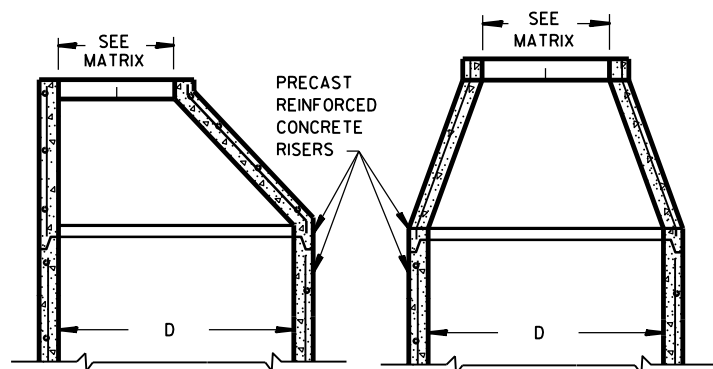
5

STORM SEWER STRUCTURE DATA																
STRUCTURE NUMBER	STATION	OFFSET	LOCATION	TYPE	RIM/GRATE ELEVATION	STRUCTURE INV ELEV	TOTAL DEPTH	SUMP DEPTH	CONNECTING PIPES	PIPE DIRECTION	PIPE SIZE & TYPE	PIPE INVERT	PIPE ROUTE	PIPE LENGTH	PIPE SLOPE	REMARKS
500	10+25.00	-5.25	LT	MANHOLES 4-J	878.55	873.50	5.05 '	0.00 '	500-501 OUT	E	SSPRC CLASS III 15-INCH	873.50	TO STR: 501	93.56 '	0.37%	
501	11+20.00	-16.00	LT	MANHOLES 4-J	877.96	873.16	4.80 '	0.00 '	500-501 IN 501-501.1 IN 501-501.2 IN 501-502 OUT	W N S E	SSPRC CLASS III 15-INCH SSPRC CLASS III 12-INCH SSPRC CLASS III 12-INCH SSPRC CLASS III 15-INCH	873.16 873.41 873.41 873.16	FROM STR: 500 FROM STR: 501.1 FROM STR: 501.2 TO STR: 502	-- -- -- 260.76 '	-- -- -- 0.50%	
501.1	11+20.00	-25.54	LT	CATCH BASINS 2X3-H-S	877.71	872.51	5.20 '	1.00 '	501-501.1 OUT	S	SSPRC CLASS III 12-INCH	873.51	TO STR: 501	9.54 '	1.00%	
501.2	11+20.00	24.93	RT	CATCH BASINS 2X3-H	877.63	872.82	4.81 '	1.00 '	501-501.2 OUT	N	SSPRC CLASS III 12-INCH	873.82	TO STR: 501	40.93 '	1.00%	
502	13+80.90	-8.00	LT	MANHOLES 4-J	876.66	871.61	5.05 '	0.00 '	501-502 IN 502-502.1 IN 502-502.2 IN 502-503 OUT	W N S E	SSPRC CLASS III 15-INCH SSPRC CLASS III 12-INCH SSPRC CLASS III 12-INCH SSPRC CLASS III 18-INCH	871.86 872.11 872.11 871.61	FROM STR: 501 FROM STR: 502.1 FROM STR: 502.2 TO STR: 503	-- -- -- 119.33 '	-- -- -- 0.50%	
502.1	13+80.79	-16.25	LT	CATCH BASINS 2X3-H	876.33	871.19	5.14 '	1.00 '	502-502.1 OUT	S	SSPRC CLASS III 12-INCH	872.19	TO STR: 502	8.25 '	1.00%	
502.2	13+81.22	16.25	RT	CATCH BASINS 2X3-H	876.33	871.35	4.98 '	1.00 '	502-502.2 OUT	N	SSPRC CLASS III 12-INCH	872.35	TO STR: 502	24.25 '	1.00%	
503	15+06.14	-12.00	LT	MANHOLES 4-J	875.97	871.01	4.96 '	0.00 '	502-503 IN 503-503.1 IN 503-504 OUT	W NW NE	SSPRC CLASS III 18-INCH SSPRC CLASS III 12-INCH SSPRC CLASS III 18-INCH	871.01 872.24 871.01	FROM STR: 502 FROM STR: 503.1 TO STR: 504	-- -- 95.57 '	-- -- 0.35%	
503.1	15+04.29	-23.26	LT	CONCRETE COLLAR					503-503.1 OUT	SE	SSPRC CLASS III 12-INCH	872.32	TO STR: 503	11.39 '	0.66%	
504	16+08.47	-17.87	LT	CONCRETE COLLAR					503-504 IN	SW	SSPRC CLASS III 18-INCH	870.68	FROM STR: 503	--	--	

5

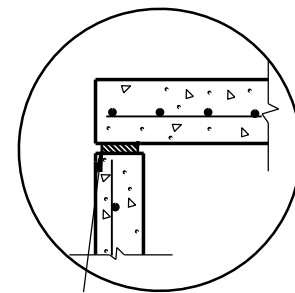


PLAN VIEW CIRCULAR OPENING

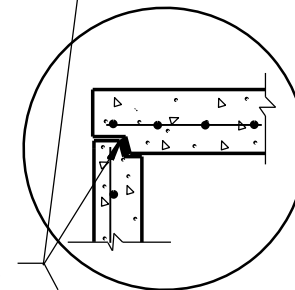


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

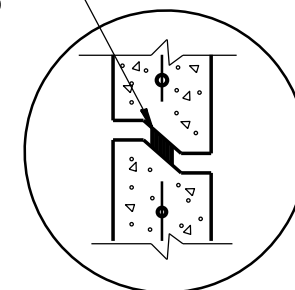
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT



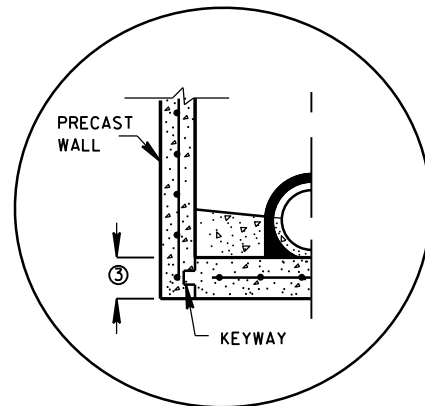
TOP WITH TONGUE AND GROOVE JOINT



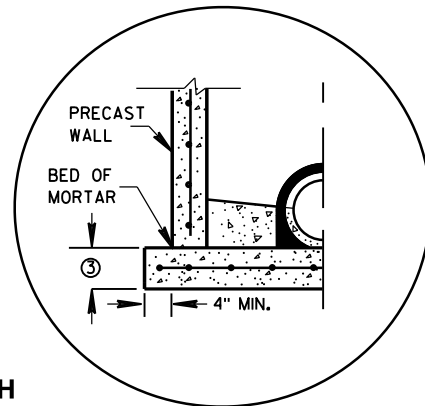
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

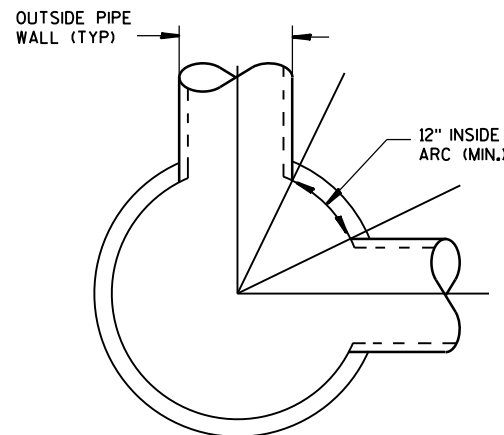


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

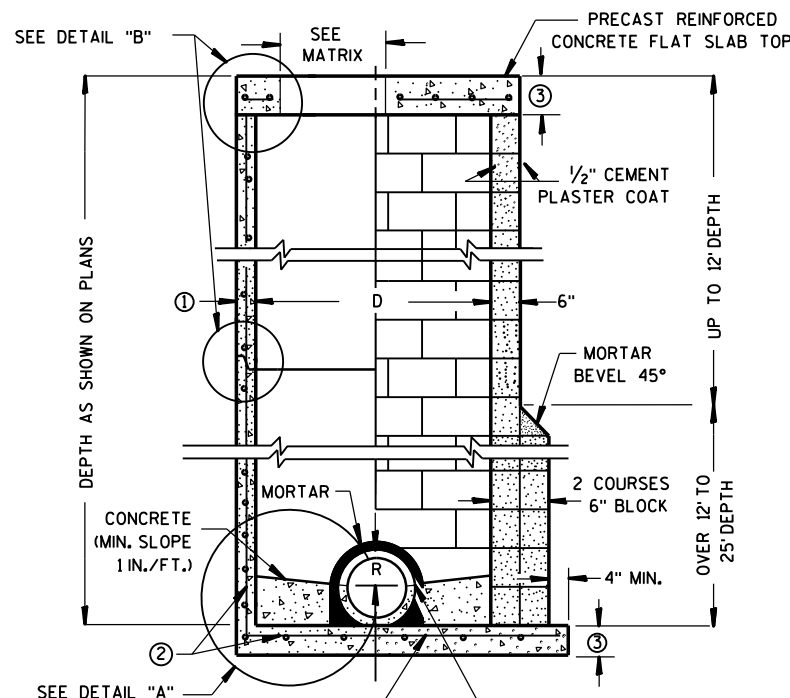


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

PRECAST REINFORCED CONCRETE BLOCK WITH CONCRETE WITH MONOLITHIC BASE CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED. CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

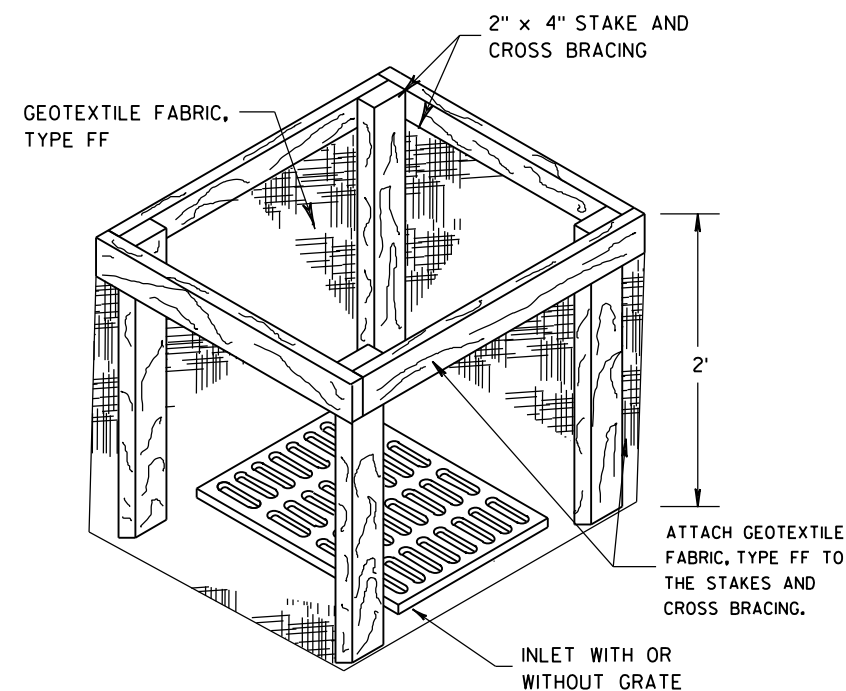
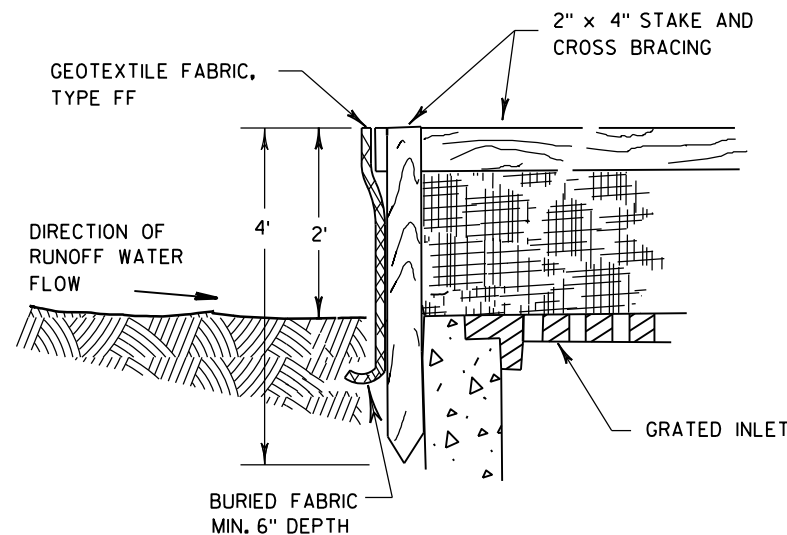
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



8E10: Inlet Protection Type A, B, C and D



INLET PROTECTION, TYPE A

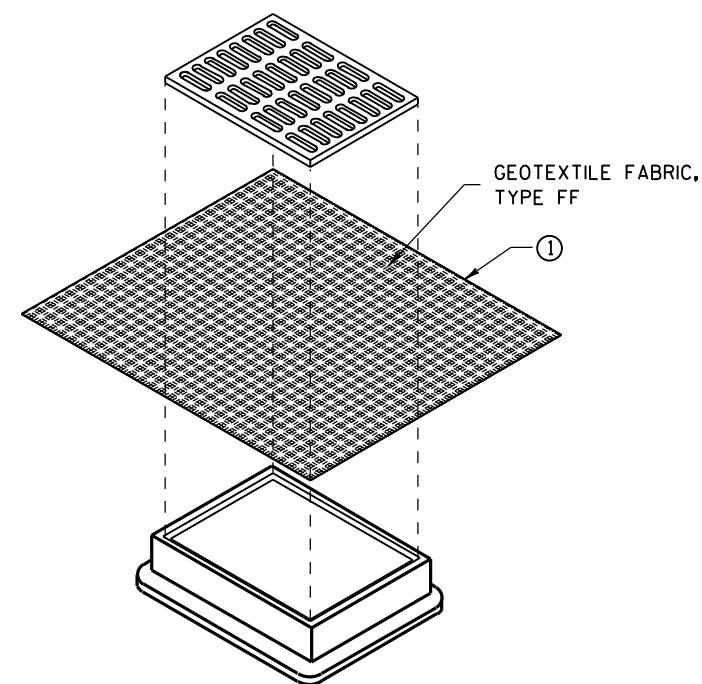
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

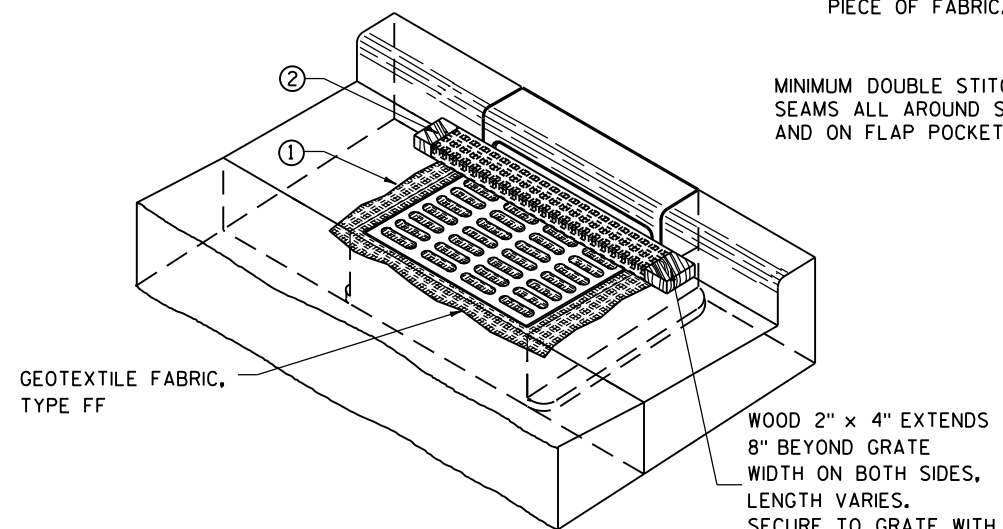
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

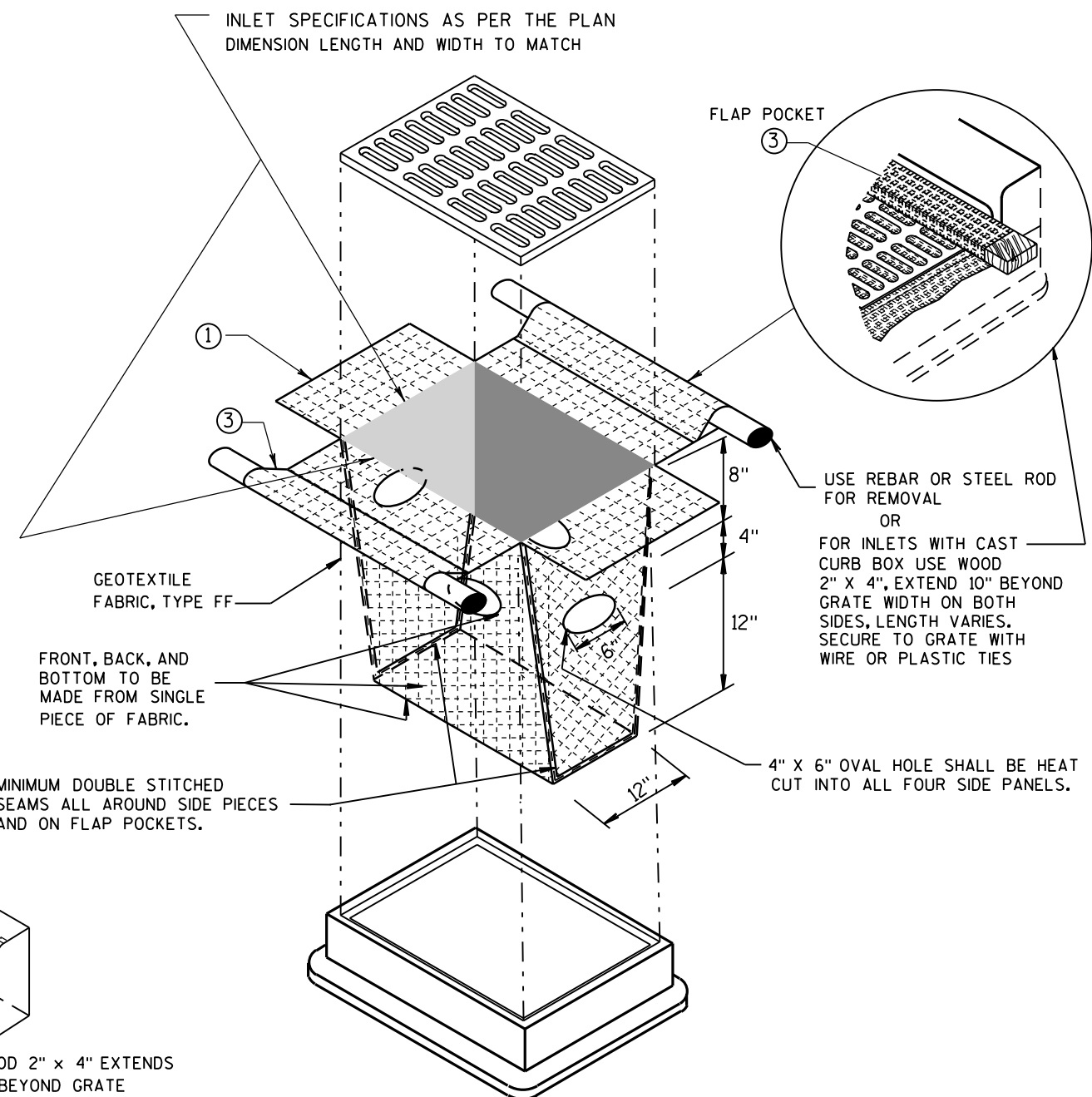
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

INLET PROTECTION TYPE A, B, C, AND D

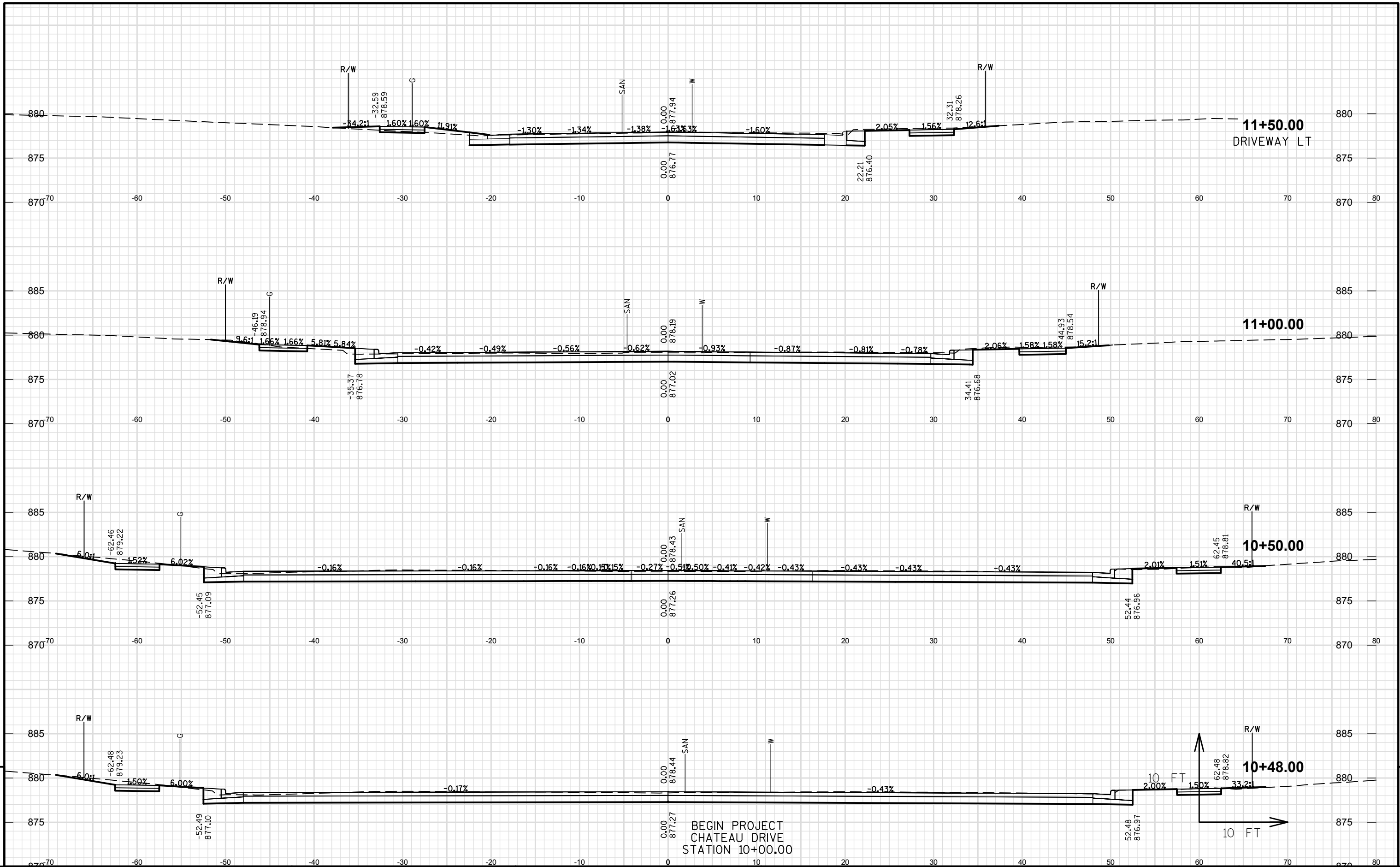
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

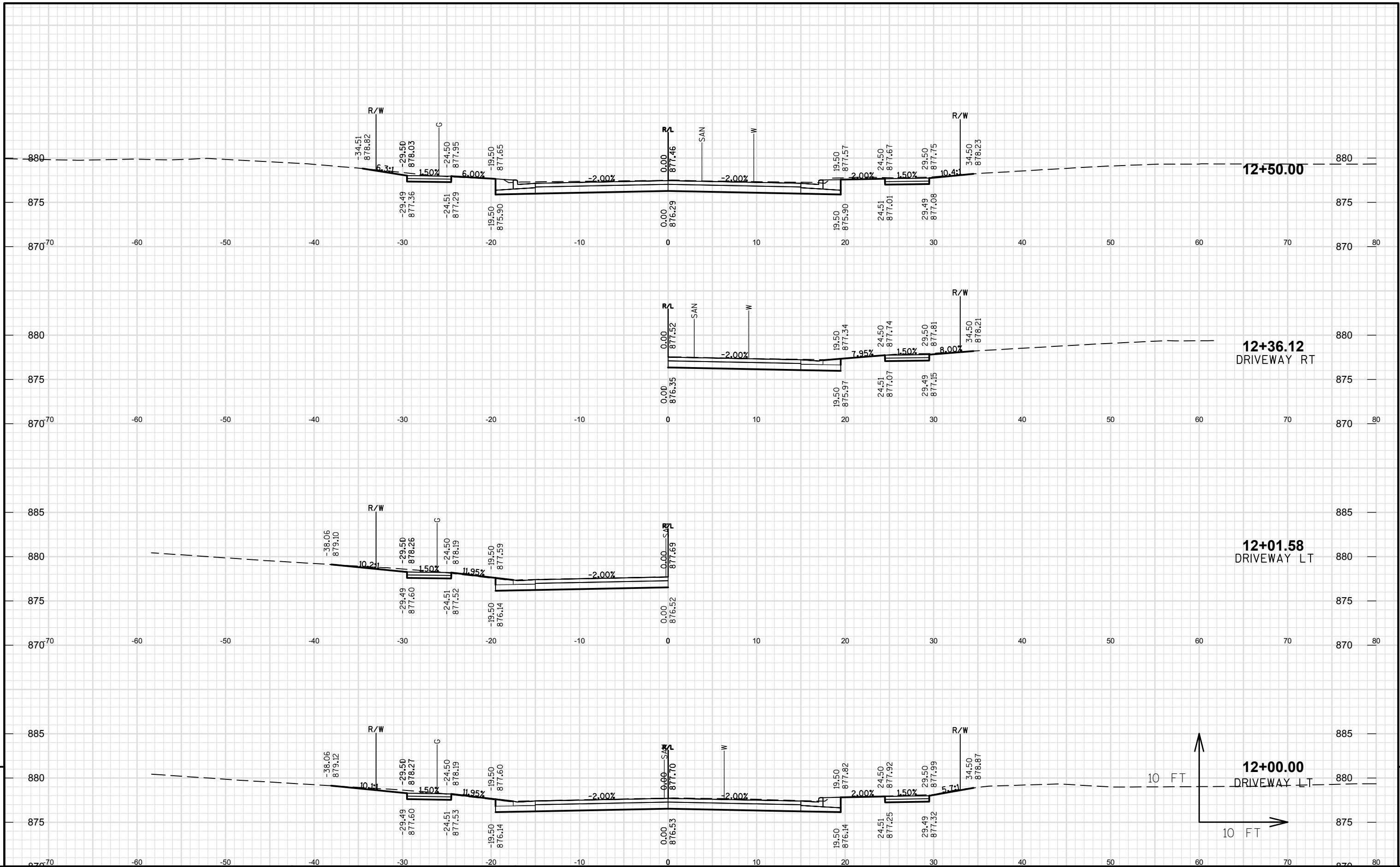
APPROVED
10-16-02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

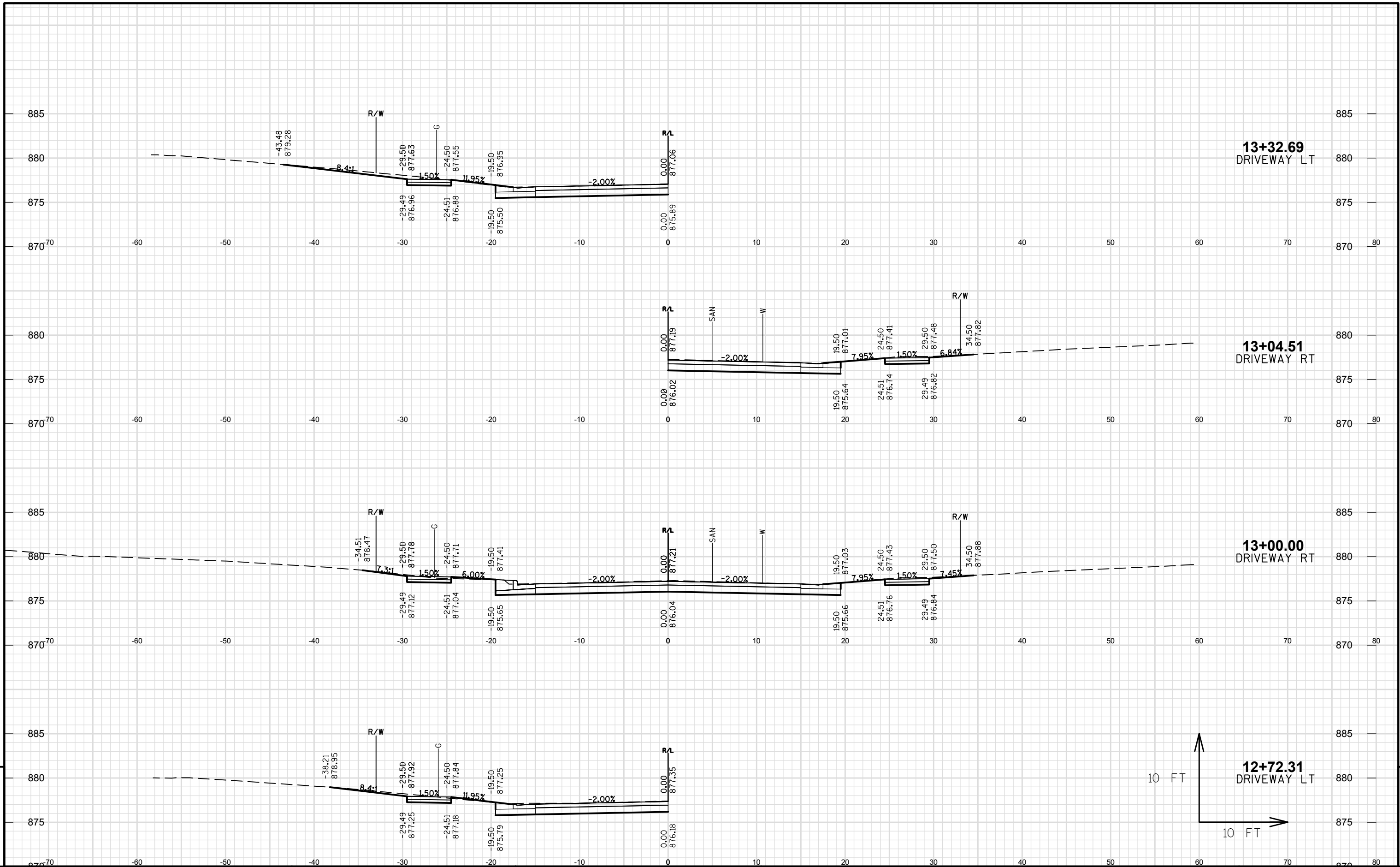
Division	From / To Station	Location	Common Excavation	Salvaged / Unusable Pavement Material (2)	Available Material (3)	Unexpanded Fill	Expanded Fill (4)	Mass Ordinate + / -	Waste
			Cut (1)				Factor 1.25		
Division 1									
Chateau Drive	10+00/16+05		1,516	319	1,197	20	25	1,172	1,172
Division 1 Subtotal			1,516	319	1,197	20	25	1,172	1,172
Grand Total			1,516	319	1,197	20	25	1,172	1,172

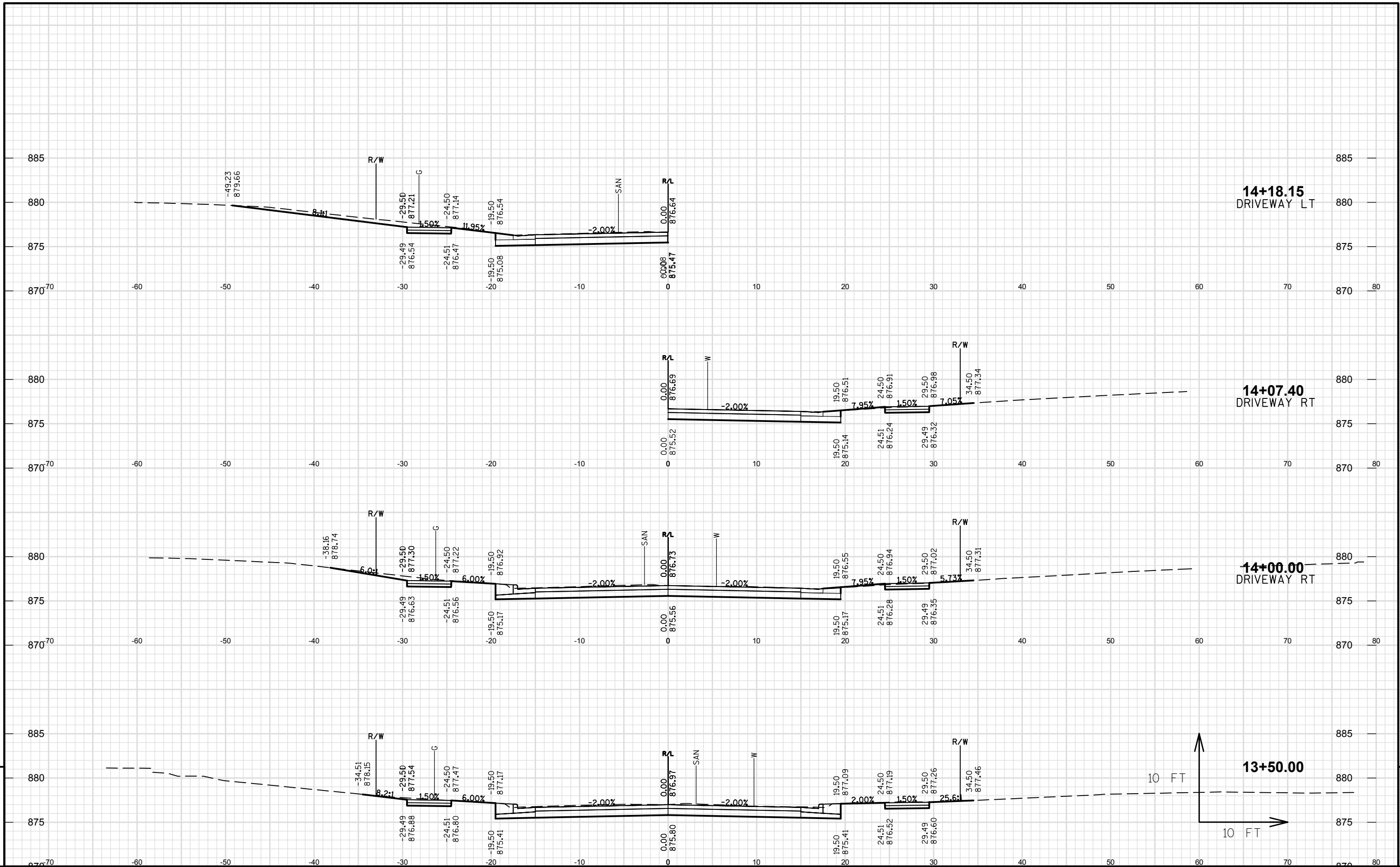
- 1) Salvaged/Unsuable Pavement Material is included in Cut.
- 2) Salvaged/Unusable Pavement Material = Existing Pavement Area * Typical Depth (4")
- 3) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 4) Expanded Fill = Unexpanded Fill * Fill Factor

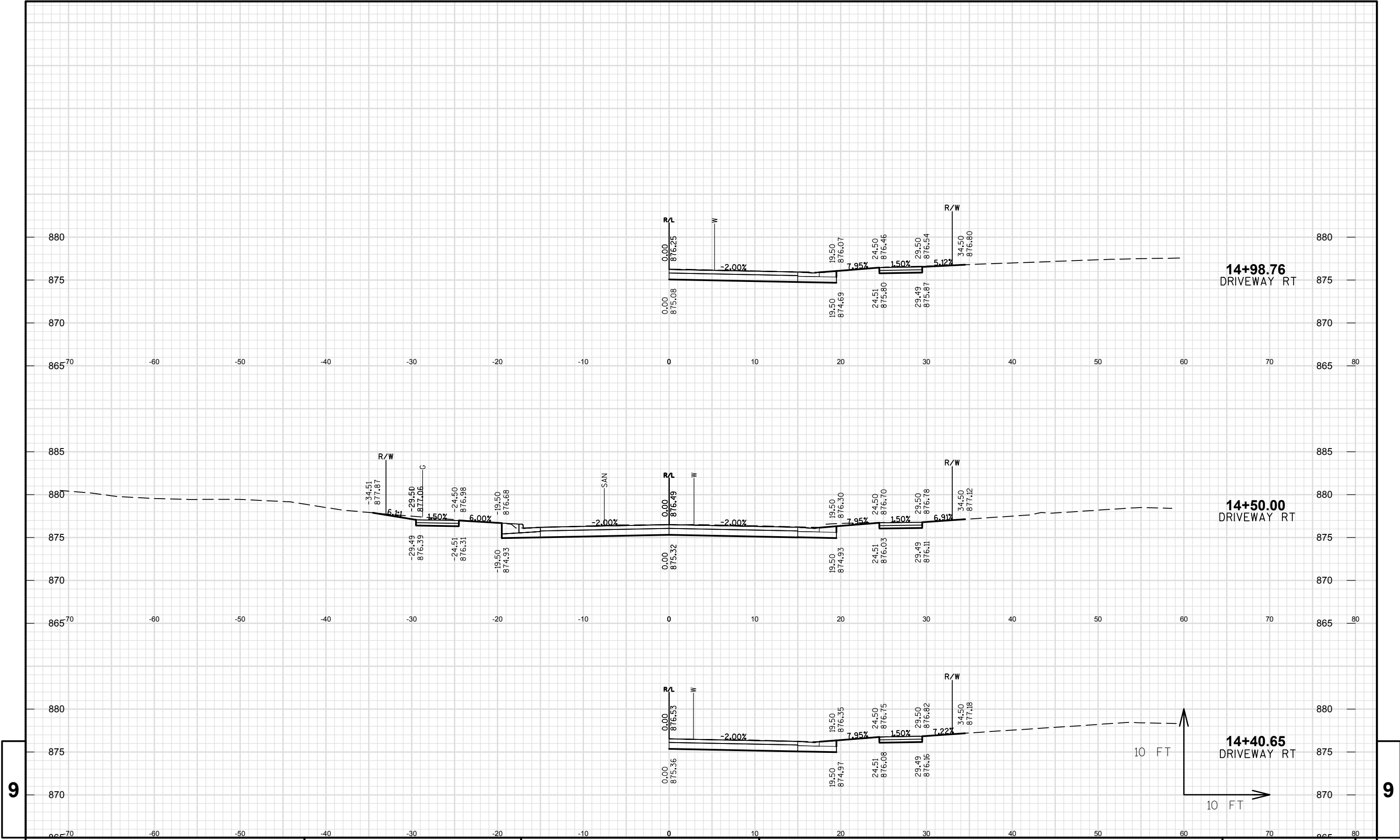
FOR INFORMATIONAL PURPOSES ONLY











END PROJECT
CHATEAU DRIVE
STATION 16+12.40

16+05.00

16+00.00

10 FT

10 FT

9

9

PROJECT NO:161031

CHATEAU DRIVE

VILLAGE OF JACKSON

CROSS SECTIONS: CHATEAU DRIVE

SHEET PRE-22

E

FILE NAME : S:\CURRPROJ\WASHINCO\JACKSON\CHATEAU_DR\civil3d\CHATEAU\sheets\plan\CHATEAU-090201-XS.DWG
LAYOUT NAME - CHATEAU-090201-XS - 07

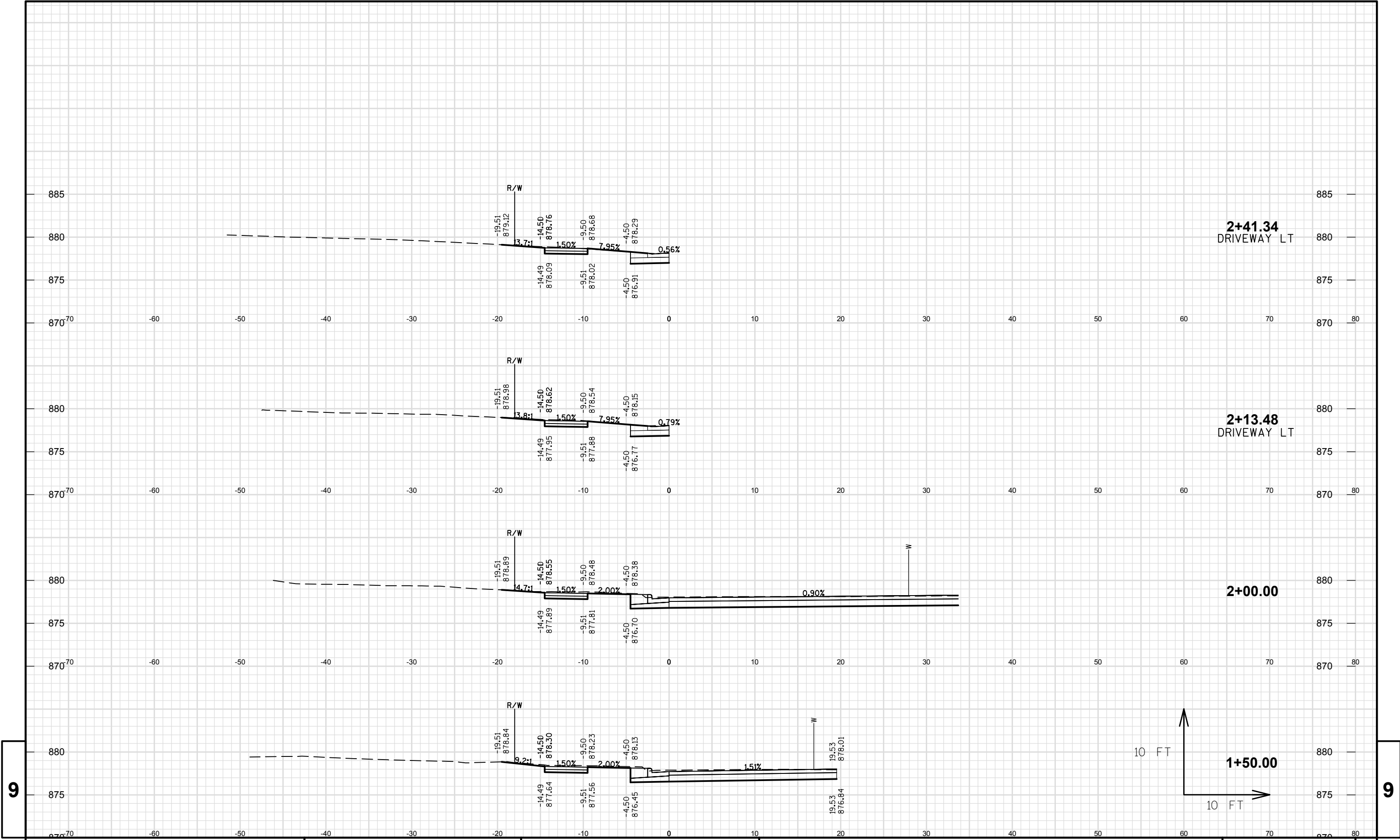
PLOT DATE : 1/24/2017 2:21 PM

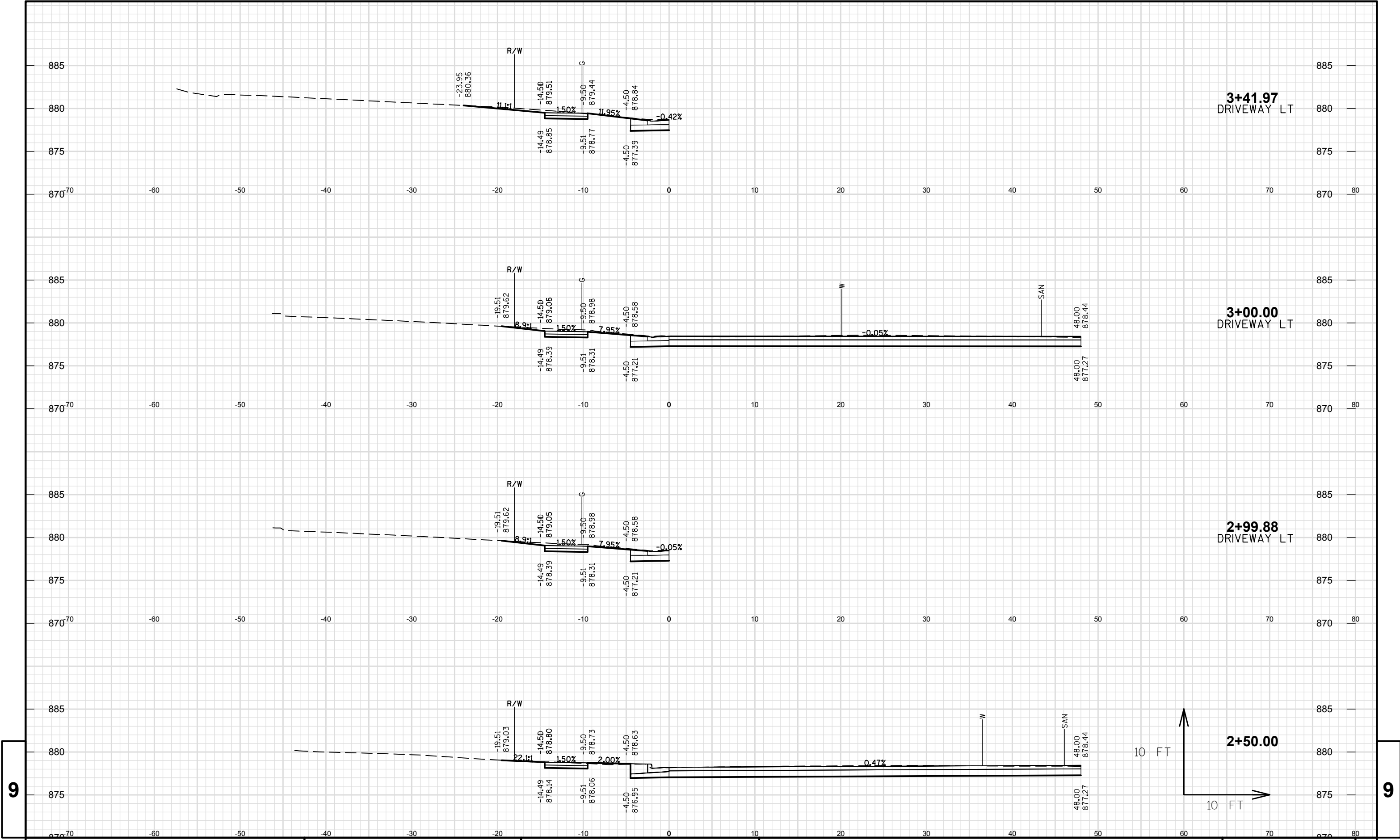
PLOT BY : KEVIN SCHMIDT

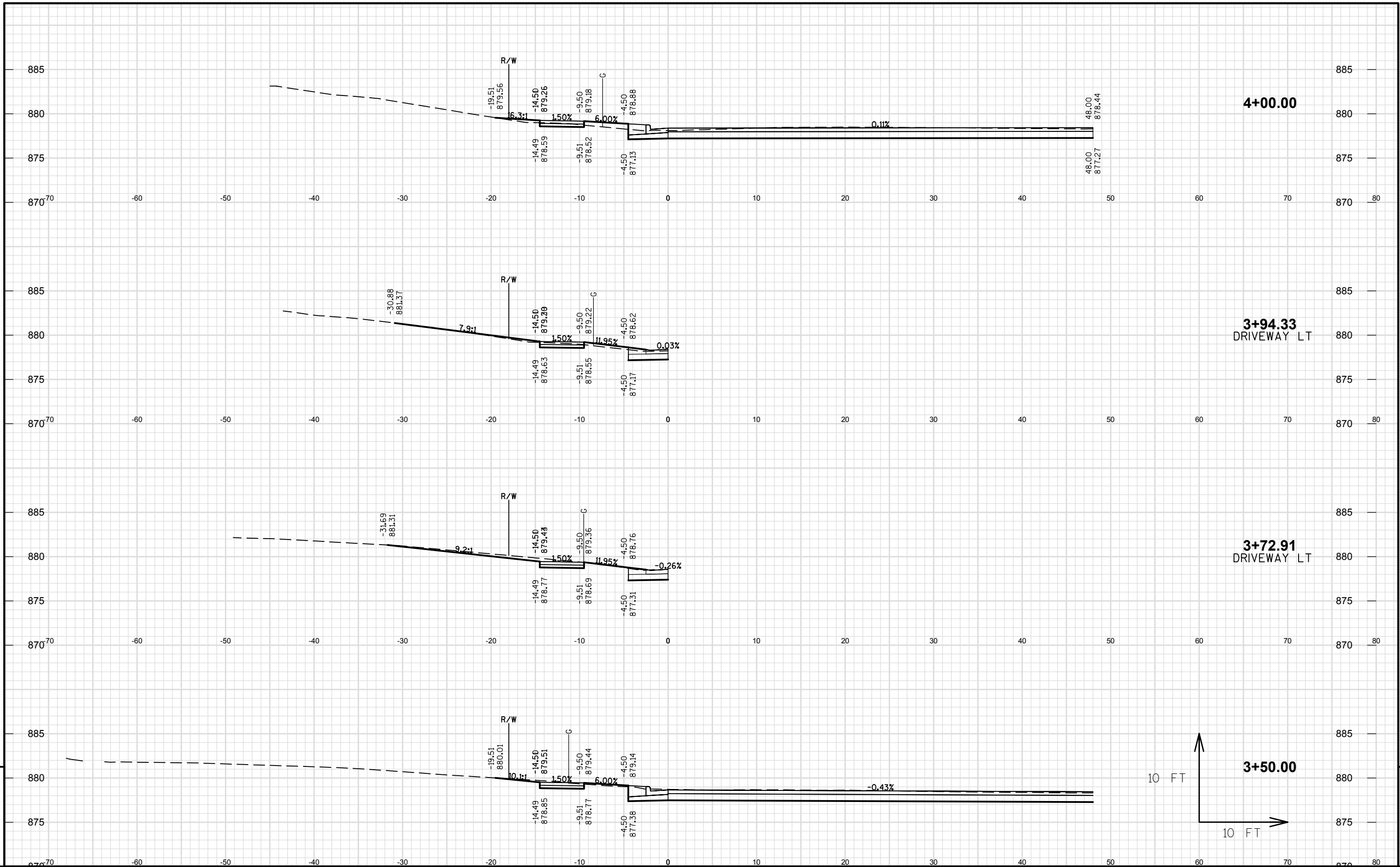
PLOT NAME :

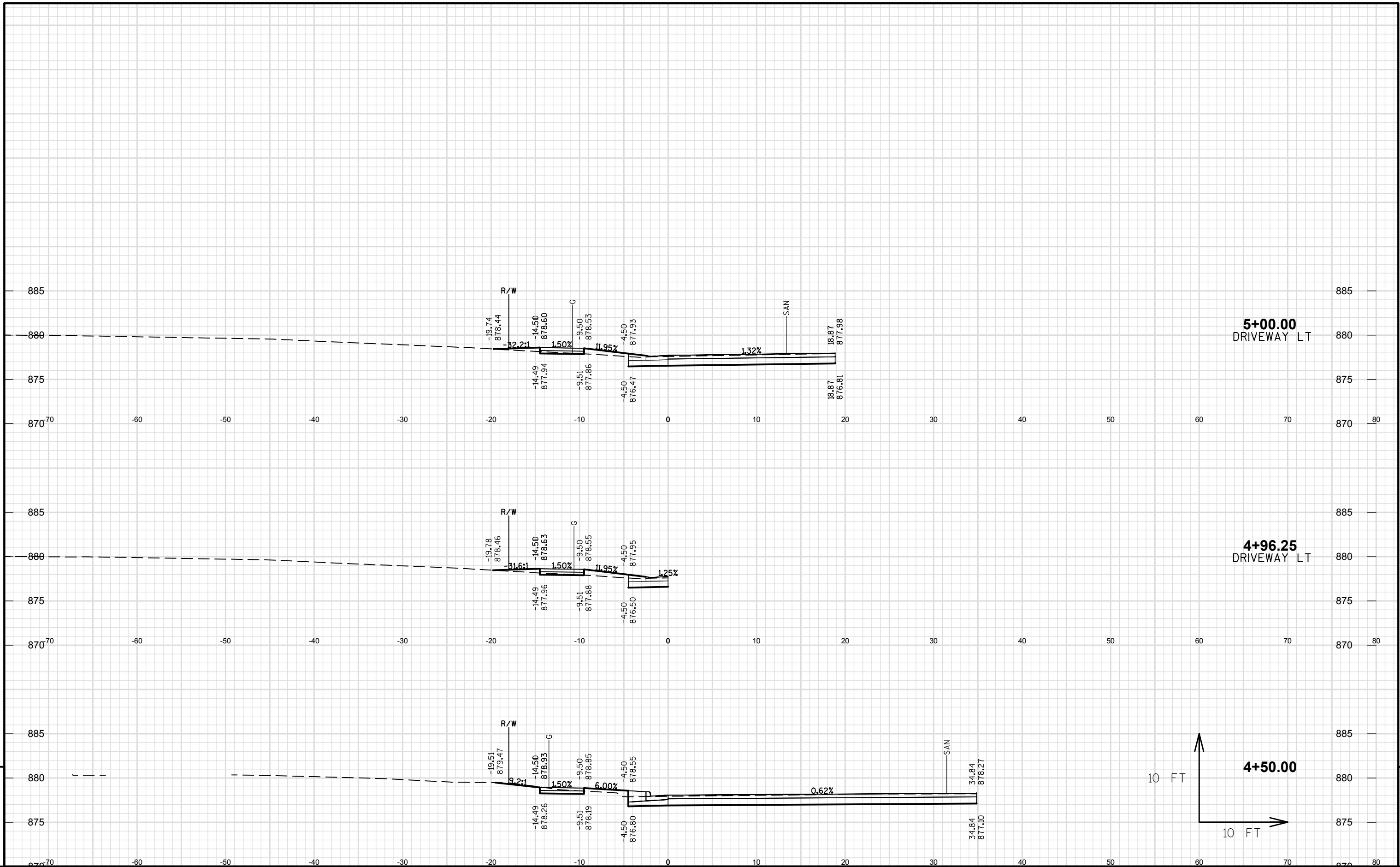
PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 49









Chateau Court - Village of Jackson
Preliminary Estimate
1/26/2017

Item No.	Description	Units	Quantity	Unit Price	Unit Total
ROADWAY ITEMS					
100.01	Removing Concrete	SY	890.00	\$5.00	\$4,450.00
100.02	Removing Curb & Gutter	LF	1,300.00	\$3.00	\$3,900.00
100.03	Excavation Common	CY	1516	\$16.50	\$25,014.00
100.04	Base Aggregate Dense 3/4-Inch	TON	470	\$15.00	\$7,050.00
100.05	Base Aggregate Dense 1 1/4-Inch	TON	1850	\$12.50	\$23,125.00
100.06	Breaker Run	TON	100	\$15.00	\$1,500.00
100.07	Concrete Driveway 7-Inch	SY	875	\$45.00	\$39,375.00
100.08	HMA Pavement	TON	745	\$55.00	\$40,975.00
100.09	Asphaltic Surface Driveway	TON	6	\$120.00	\$720.00
100.10	Concrete Curb & Gutter 30-Inch Type D	LF	1320	\$12.50	\$16,500.00
100.11	Concrete Sidewalk 4-Inch	SF	4550	\$4.00	\$18,200.00
100.12	Lawn Restoration	SY	1950	\$5.00	\$9,750.00
100.13	Erosion Control	LS	1	\$1,500.00	\$1,500.00
100.14	Traffic Control	LS	1	\$2,500.00	\$2,500.00
100.15	Sawing Asphalt	LF	140	\$2.00	\$280.00
100.16	Sawing Concrete	LF	310	\$3.00	\$930.00
SUBTOTAL ROADWAY ITEMS					\$195,769.00
STORM SEWER ITEMS					
200.01	Removing Manholes	EACH	2	\$500.00	\$1,000.00
200.02	Removing Inlets	EACH	2	\$350.00	\$700.00
200.03	Removing Storm Sewer	LF	330	\$15.00	\$4,950.00
200.04	Storm Sewer Pipe PVC SDR-35 4-Inch	LF	1462	\$40.00	\$58,480.00
200.05	Storm Sewer Pipe Reinforced Concrete 12-Inch	LF	95	\$65.00	\$6,175.00
200.06	Storm Sewer Pipe Reinforced Concrete 15-Inch	LF	355	\$70.00	\$24,850.00
200.07	Storm Sewer Pipe Reinforced Concrete 18-Inch	LF	215	\$80.00	\$17,200.00
200.08	Catch Basins 2.5x3-FT w/ Casting	EACH	4	\$2,000.00	\$8,000.00
200.09	Manholes 4-FT Diameter w/ Casting	EACH	4	\$3,000.00	\$12,000.00
200.10	Concrete Collar	EACH	2	\$500.00	\$1,000.00
SUBTOTAL STORM SEWER ITEMS					\$134,355.00
SANITARY SEWER ITEMS					
300.01	Adjusting Sanitary Sewer Manhole	EACH	3	\$550.00	\$1,650.00
SUBTOTAL SANITARY SEWER ITEMS					\$1,650.00
WATER MAIN ITEMS					
400.01	Removing Hydrant	EACH	2	\$500.00	\$1,000.00
400.02	Abandoning Water Main	LS	1	\$1,500.00	\$1,500.00
400.03	Water Main Pipe HDPE 1 1/4-Inch	LF	755	\$75.00	\$56,625.00
400.04	Water Main Pipe PVC C-900 6-Inch	LF	24	\$80.00	\$1,920.00
400.05	Water Main Pipe PVC C-900 8-Inch	LF	625	\$85.00	\$53,125.00
400.06	Gate Valve 6-Inch	EACH	2	\$1,500.00	\$3,000.00
400.07	Gate Valve 8-Inch	EACH	1	\$2,000.00	\$2,000.00
400.08	Reducer 8-Inch x 6-Inch	EACH	1	\$450.00	\$450.00
400.09	Anchor Tee 8-Inch x 6-Inch	EACH	1	\$550.00	\$550.00
400.10	Bend 11.25 Degree 8-Inch	EACH	2	\$400.00	\$800.00
400.11	Bend 22.5 Degree 8-Inch	EACH	1	\$400.00	\$400.00
400.12	Bend 45 Degree 8-Inch	EACH	1	\$400.00	\$400.00
400.13	Connect to Existing Water Main	EACH	1	\$1,500.00	\$1,500.00
400.14	Hydrant	EACH	2	\$3,750.00	\$7,500.00
400.15	Polystyrene Insulation Board 2-Inch	SF	32	\$7.50	\$240.00
SUBTOTAL WATER MAIN ITEMS					\$131,010.00
SUBTOTAL					\$462,784.00
7% Construction Change Order Contingency					\$32,394.88
TOTAL					\$495,178.88

CONTRACT TIME FOR COMPLETION

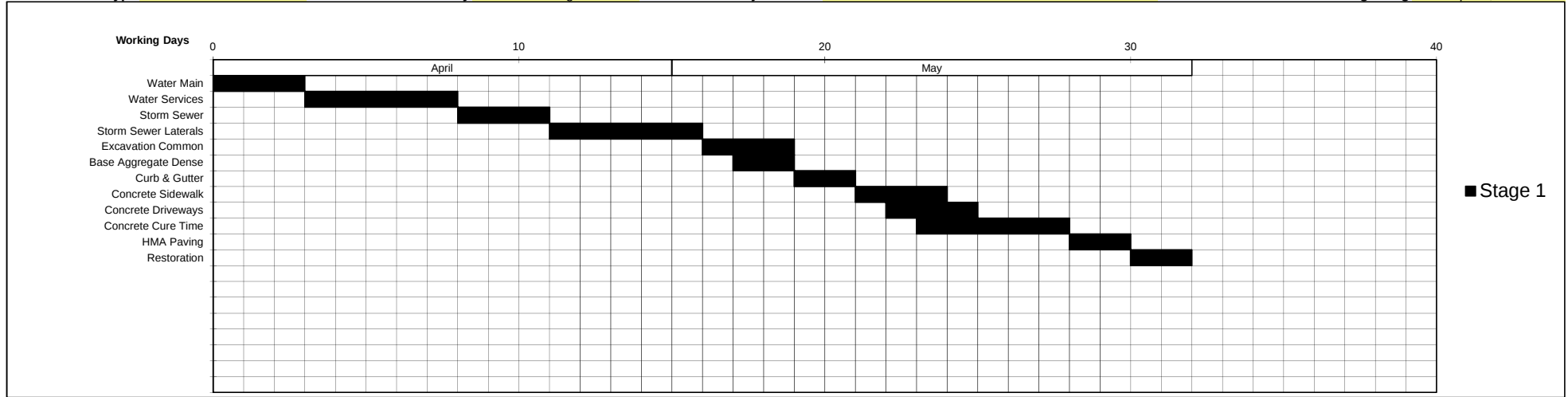
Wisconsin Department of Transportation DT1923 04/2011

Project ID 161031
Work Type Reconstruction

Highway Chateau Drive
County Washington

Project Title Chateau Drive
Project Limits West of Wilshire Drive

Date of Letting February 23, 2017
Probable Date of Beginning April 3, 2017



ITEM ANALYSIS

Item	Contract Quantity per Stage					Total Quantity	Unit	Production Rate	Working Days (per Stage)	Stage 1									
	Stage 1									Begin	End	Begin	End	Begin	End	Begin	End	Begin	End
Water Main	615					615	LF	300	3 / / / / /	0	3								
Water Services	18					18	EACH	4	5 / / / / /	3	8								
Storm Sewer	610					610	LF	300	3 / / / / /	8	11								
Storm Sewer Laterals	18					18	EACH	4	5 / / / / /	11	16								
Excavation Common	1,360					1,360	CY	600	3 / / / / /	16	19								
Base Aggregate Dense	1,930					1,930	TON	1000	2 / / / / /	17	19								
Curb & Gutter	1,310					1,310	LF	1000	2 / / / / /	19	21								
Concrete Sidewalk	4,925					4,925	SF	1750	3 / / / / /	21	24								
Concrete Driveways	790					790	SY	300	3 / / / / /	22	25								
Concrete Cure Time	5					5	DAYS	1	5 / / / / /	23	28								
HMA Paving	780					780	TON	600	2 / / / / /	28	30								
Restoration	2,165					2,165	SY	1250	2 / / / / /	30	32								
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Month	Date		Days			Possible Work Days	Probable Working Days		
	Begin	End	Month	Total	Holiday		%	Month	Total
			0	0		0		0	0
			0	0		0		0	0
			0	0		0		0	0
April	4/3/2017	4/30/2017	28	28		20	75	15	15
May	5/1/2017	5/26/2017	26	54		20	85	17	32
			0	54		0		0	32
			0	54		0		0	32
			0	54		0		0	32
			0	54		0		0	32
			0	54		0		0	32
			0	54		0		0	32
			0	54		0		0	32

REMARKS

Calendar Days 54
Working Days 32
Completion Date
Prepared By

CONSTRUCTION YEAR: 2017

Public Works Report

January 31, 2017

Treatment Plant - Designed Capacity – 1.67 million gallons per day
 Peak Flow Capacity – 6.0 million gallons per day

Year 2014

January	Avg. Flow 695,355 g.p.d.	Min. Flow 626,000 g.p.d.	Max. 822,000 g.p.d.
February	Avg. Flow 659,286 g.p.d.	Min. Flow 581,000 g.p.d.	Max. 874,000 g.p.d.
March	Avg. Flow 941,613 g.p.d.	Min. Flow 611,000 g.p.d.	Max. 1.285 MGD
April	Avg. Flow 1.172 MGD	Min. Flow 814,000 g.p.d.	Max. 3.188 MGD
May	Avg. Flow 947,322 g.p.d.	Min. Flow 688,000 g.p.d.	Max. 1.474 MGD
June	Avg. Flow 1.199 MGD	Min. Flow 732,000 g.p.d.	Max. 2.223 MGD
July	Avg. Flow 846,226 g.p.d.	Min. Flow 670,000 g.p.d.	Max. 1.646 MGD
August	Avg. Flow 743,322 g.p.d.	Min. Flow 603,000 g.p.d.	Max. 1.039 MGD
September	Avg. Flow 646,567 g.p.d.	Min. Flow 532,000 g.p.d.	Max. 759,000 g.p.d.
October	Avg. Flow 707,484 g.p.d.	Min. Flow 584,000 g.p.d.	Max. 898,000 g.p.d.
November	Avg. Flow 698,267 g.p.d.	Min. Flow 581,000 g.p.d.	Max. 1.086 MGD
December	Avg. Flow 788,065 g.p.d.	Min. Flow 658,000 g.p.d.	Max. 1.228 MGD

Year 2015

January	Avg. Flow 667,774 g.p.d.	Min. Flow 617,000 g.p.d.	Max. 713,000 g.p.d.
February	Avg. Flow 620,893 g.p.d.	Min. Flow 591,000 g.p.d.	Max. 662,000 g.p.d.
March	Avg. Flow 753,484 g.p.d.	Min. Flow 597,000 g.p.d.	Max. 885,000 g.p.d.
April	Avg. Flow 1.203 MGD	Min. Flow 705,000 g.p.d.	Max. 3.759 MGD
May	Avg. Flow 775,323 g.p.d.	Min. Flow 584,000 g.p.d.	Max. 1.317 MGD
June	Avg. Flow 905,633 g.p.d.	Min. Flow 661,000 g.p.d.	Max. 1.409 MGD
July	Avg. Flow 696,290 g.p.d.	Min. Flow 571,000 g.p.d.	Max. 912,000 g.p.d.
August	Avg. Flow 726,935 g.p.d.	Min. Flow 558,000 g.p.d.	Max. 1.254 MGD
September	Avg. Flow 728,240 g.p.d.	Min. Flow 526,000 g.p.d.	Max. 1.364 MGD
October	Avg. Flow 505,516 g.p.d.	Min. Flow 409,000 g.p.d.	Max. 691,000 g.p.d.
November	Avg. Flow 696,800 g.p.d.	Min. Flow 494,000 g.p.d.	Max. 1.583 MGD
December	Avg. Flow 897,258 g.p.d.	Min. Flow 616,000 g.p.d.	Max. 1.799 MGD

Year 2016

January	Avg. Flow 611,323 g.p.d.	Min. Flow 451,000 g.p.d.	Max. 924,000 g.p.d.
February	Avg. Flow 640,793 g.p.d.	Min. Flow 496,000 g.p.d.	Max. 851,000 g.p.d.
March	Avg. Flow 821,839 g.p.d.	Min. Flow 567,000 g.p.d.	Max. 1.463 MGD
April	Avg. Flow 718,000 g.p.d.	Min. Flow 563,000 g.p.d.	Max. 1.079 MGD
May	Avg. Flow 615,000 g.p.d.	Min. Flow 490,000 g.p.d.	Max. 937,000 g.p.d.
June	Avg. Flow 622,700 g.p.d.	Min. Flow 513,000 g.p.d.	Max. 892,000 g.p.d.
July	Avg. Flow 690,935 g.p.d.	Min. Flow 457,000 g.p.d.	Max. 1.074 MGD
August	Avg. Flow 1.039 MGD	Min. Flow 822,000 g.p.d.	Max. 1.338 MGD
September	Avg. Flow 1.333 MGD	Min. Flow 813,000 g.p.d.	Max. 2.166 MGD
October	Avg. Flow 1.319 MGD	Min. Flow 949,000 g.p.d.	Max. 2.572 MGD
November	Avg. Flow 1.111 MGD	Min. Flow 859,000 g.p.d.	Max. 1.818 MGD
December	Avg. Flow 1.211 MGD	Min. Flow 889,000 g.p.d.	Max. 2.063 MGD

Years Summary of Water Consumption

2004 Total Pumpage 216,055,000 gallons	2005 Total Pumpage 223,215,000 gallons
2006 Total Pumpage 207,719,000 gallons	2007 Total Pumpage 217,224,000 gallons
2008 Total Pumpage 229,613,000 gallons	2009 Total Pumpage 231,160,000 gallons
2010 Total Pumpage 239,326,000 gallons	2011 Total Pumpage 240,268,000 gallons
2012 Total Pumpage 253,492,000 gallons	2013 Total Pumpage 228,371,000 gallons
2014 Total Pumpage 230,973,000 gallons	2015 Total Pumpage 222,621,000 gallons

Year 2014

Jan.	Avg.	620,550 g.p.d.	Highest Day 789,000 gals.	Total	19,237,000 gallons
Feb.	Avg.	612,390 g.p.d.	Highest Day 717,000 gals.	Total	17,147,000 gallons
March	Avg.	603,710 g.p.d.	Highest Day 678,000 gals.	Total	18,715,000 gallons
April	Avg.	602,600 g.p.d.	Highest Day 1.037 MGD	Total	18,078,000 gallons
May	Avg.	599,290 g.p.d.	Highest Day 729,000 gals.	Total	18,578,000 gallons
June	Avg.	658,000 g.p.d.	Highest Day 815,000 gals.	Total	19,740,000 gallons
July	Avg.	684,320 g.p.d.	Highest Day 881,000 gals.	Total	21,214,000 gallons
August	Avg.	703,320 g.p.d.	Highest Day 1.019 MGD	Total	21,803,000 gallons
Sept	Avg.	639,170 g.p.d.	Highest Day 747,000 gals.	Total	19,275,000 gallons
October	Avg.	658,940 g.p.d.	Highest Day 1.042 MGD	Total	20,427,000 gallons
Nov	Avg.	595,800 g.p.d.	Highest Day 733,000 gals.	Total	17,874,000 gallons
Dec	Avg.	610,970 g.p.d.	Highest Day 742,000 gals.	Total	18,940,000 gallons

Year 2015

Jan.	Avg.	599,680 g.p.d.	Highest Day 719,000 gals.	Total	18,590,000 gallons
Feb	Avg.	587,040 g.p.d.	Highest Day 736,000 gals.	Total	16,437,000 gallons
March	Avg.	582,970 g.p.d.	Highest Day 698,000 gals.	Total	18,072,000 gallons
April	Avg.	601,370 g.p.d.	Highest Day 928,000 gals.	Total	18,041,000 gallons
May	Avg.	585,260 g.p.d.	Highest Day 698,000 gals.	Total	18,143,000 gallons
June	Avg.	640,430 g.p.d.	Highest Day 779,000 gals.	Total	19,213,000 gallons
July	Avg.	722,550 g.p.d.	Highest Day 989,000 gals.	Total	22,399,000 gallons
August	Avg.	733,420 g.p.d.	Highest Day 1.197 MGD	Total	22,736,000 gallons
Sept	Avg.	615,700 g.p.d.	Highest Day 753,000 gals.	Total	18,471,000 gallons
Oct	Avg.	594,840 g.p.d.	Highest Day 945,000 gals	Total	18,440,000 gallons
Nov	Avg.	492,630 g.p.d.	Highest Day 599,000 gals	Total	14,779,000 gallons
Dec	Avg.	555,480 g.p.d.	Highest Day 637,000 gals	Total	17,220,000 gallons

Year 2016

Jan.	Avg.	580,680 g.p.d.	Highest Day 734,000 gals.	Total	18,001,000 gallons
Feb.	Avg.	603,930 g.p.d.	Highest Day 710,000 gals.	Total	17,514,000 gallons
March	Avg.	586,650 g.p.d.	Highest Day 693,000 gals.	Total	18,186,000 gallons
April	Avg.	660,200 g.p.d.	Highest Day 1.021 MGD	Total	19,806,000 gallons
May	Avg.	681,130 g.p.d.	Highest Day 997,000 gals.	Total	21,115,000 gallons
June	Avg.	781,870 g.p.d.	Highest Day 1.113 MGD	Total	23,456,000 gallons
July	Avg.	865,610 g.p.d.	Highest Day 1.046 MGD	Total	26,834,000 gallons
August	Avg.	817,940 g.p.d.	Highest Day 1.084 MGD	Total	25,356,000 gallons
Sept	Avg.	700,630 g.p.d.	Highest Day 835,000 gals	Total	21,019,000 gallons
Oct	Avg.	738,520 g.p.d.	Highest Day 1.235 MGD	Total	22,894,000 gallons
Nov	Avg.	654,530 g.p.d.	Highest Day 829,000 gals	Total	19,636,000 gallons
Dec	Avg.	668,190 g.p.d.	Highest Day 779,000 gals	Total	20,714,000 gallons

Pump Capacity - Well #1- 400 g.p.m. Well #3 -900 g.p.m. Well #4 - 1200 g.p.m. Well #5 – 1,100 g.p.m. Well #6 – 800 g.p.m.

WWTP – Holding & Septage Receiving

2005	\$ 87,562.01	2006	\$101,115.11	2007	\$152,201.07	2008	\$210,441.47
2009	\$183,815.34	2010	\$197,653.66	2011	\$220,576.28	2012	\$236,224.70
2013	\$235,336.46	2014	\$203,938.32	2015	\$210,644.47		

2014	Holdings (gals)	Grease (gals)	G Decant (gals)	Septage (gals)	S Decant (gals)	Total Billings
Jan	1,298,100	26,700	8,000	2,000	40,000	\$12,377.30
Feb	1,214,100	42,400	8,000	9,450	16,250	\$12,181.61
March	1,411,000	43,200	5,000	10,300	57,200	\$14,633.31
April	1,634,000	21,800		39,350	191,100	\$19,620.21
May	1,451,750			63,500	199,450	\$18,414.39
June	1,553,200			30,900	253,600	\$19,225.00
July	1,474,650			40,400	205,450	\$17,812.13
August	1,344,650			35,250	187,250	\$16,176.13
September	1,308,700		3,500	54,650	246,050	\$18,292.51
October	1,431,150			89,350	351,950	\$23,106.38
November	1,078,600			66,100	251,214	\$17,013.86
December	1,400,900			12,650	162,910	\$15,085.50

2015	Holdings (gals)	Grease (gals)	G Decant (gals)	Septage (gals)	S Decant (gals)	Total Billings
Jan	1,326,850			10,250	52,100	\$11,663.89
Feb	1,191,500			2,500	45,400	\$10,171.26
March	1,507,900			16,150	85,900	\$14,102.76
April	1,668,450			35,250	398,200	\$23,878.38
May	1,190,850			31,100	148,600	\$13,890.38
June	1,407,600			37,750	349,100	\$20,794.50
July	1,485,950			33,830	243,660	\$18,589.33
August	1,255,600			28,050	290,860	\$17,810.50
September	1,459,400			15,500	333,350	\$19,899.26
October	1,273,400	7,200		37,150	369,300	\$20,603.82
November	1,336,300			36,200	343,035	\$20,046.14
December	1,610,500			31,200	234,700	\$19,194.26

2016	Holdings (gals)	Grease (gals)	G Decant (gals)	Septage (gals)	S Decant (gals)	Total Billings
Jan	1,359,400			3,500	47,700	\$11,528.02
Feb	1,443,000			1,500	31,350	\$11,666.26
March	1,515,950			5,600	102,900	\$14,166.14
April	1,600,500			25,000	284,250	\$20,110.01
May	1,560,350			24,000	246,200	\$18,817.63
June	1,551,600			49,100	257,900	\$20,048.50
July	1,195,900			21,850	278,400	\$16,803.25
August	1,506,850			29,750	276,250	\$19,397.63
September	1,501,850			48,550	373,430	\$22,541.63
October	1,447,150			126,250	389,054	\$25,629.98
November	1,471,800			40,900	343,250	\$21,255.76
Total so far \$201,964.79						

Final Lift for Developed Subdivisions

Bielinski Homes have not schedule the final lift in Laurel Springs Subdivision Phase 1. They are now planning on developing phase 2, and the final lift will be installed in phase one. Working out the details in having the all subdivisions paved with the final lift next spring.

Rosewood Drive/TIF #4 Expansion Project

The property still has the potential of being developed. Lawsuit is pending.

GIS Program

Town and Country Engineering have started the process for the GIS system upgrade. We are finalizing user names to access to the maps, and getting the tablets ready for accessing the maps. An instructional meeting for staff is being scheduled to increase map usage.

Storm Water Management Plan

The ordinance is being finalized to be incorporated into the new Village Code. We will continue to monitor the system per the Storm Water Management Plan.

SCADA Upgrade Project

The two low bidders for the SCADA Upgrade Project were interviewed to determine the best contractor for the project. The project will be discussed at the next Board of Public Works meeting on January 31st.

Wilshire Drive Project LRIP

All items have been completed with only the landscaping to be addressed in the year of 2017. The grant money request form are being filled out for reimbursement.

Industrial Drive Sidewalk Project

The Industrial Drive Sidewalk project has been completed and a walkthrough completed. The only item is the landscaping to be addressed in the year of 2017. Along with the project, Industrial Drive was re-asphalted by Walgreens driveway.

Stonewall Sidewalk Project

The asphalt sidewalk has been installed and landscaping is being address. The handrail has been installed along the retaining wall.

Space Needs Analysis Study

Cedar Corp team continues to meet with staff in developing plans for a new Safety Building.

Respectfully submitted, Brian W. Kober, P.E.