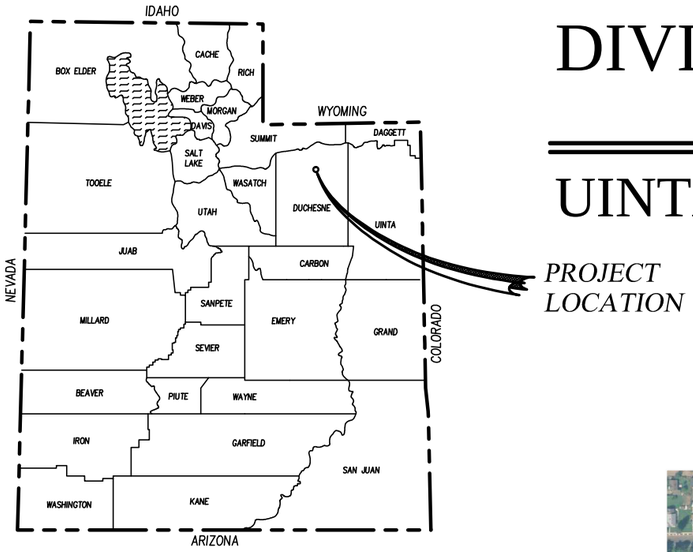
PROJECT NO.	SHEET NO.
10071250	1

ISSUE DATE 8-05-2010

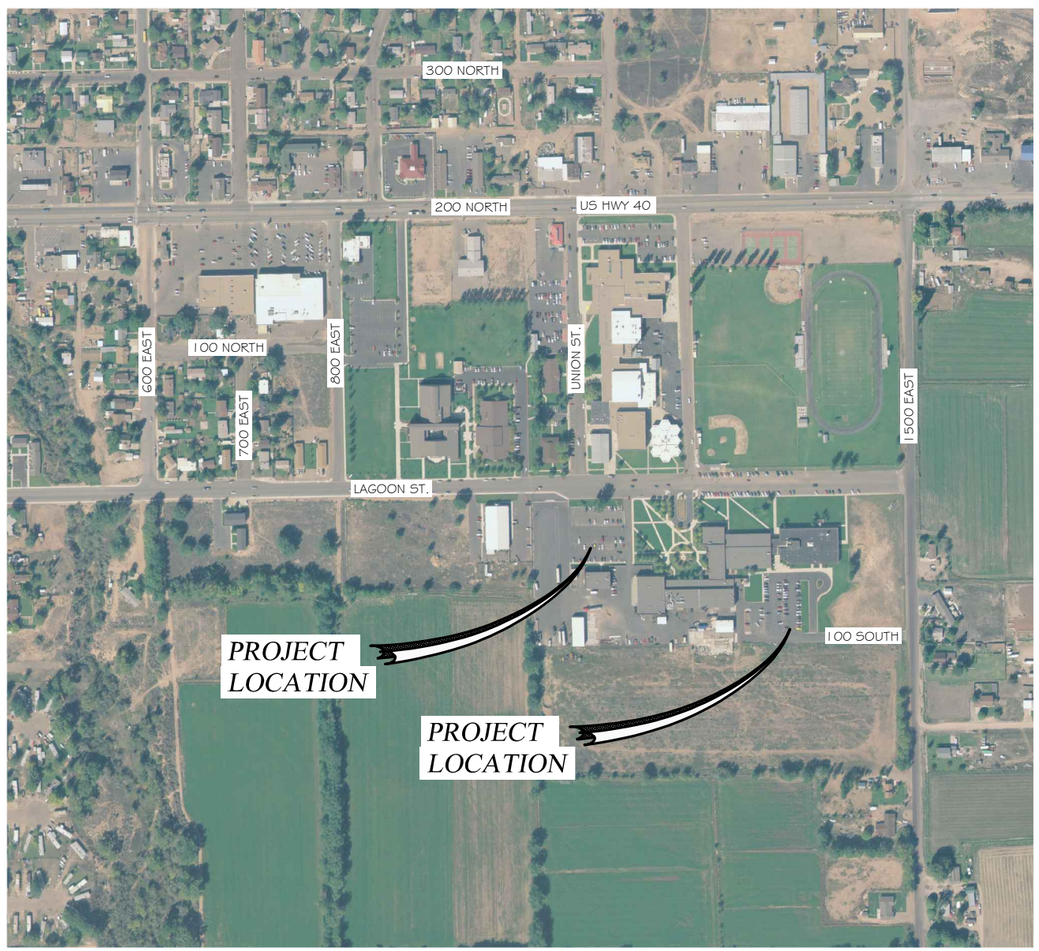
STATE OF UTAH
DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

UINTAH BASIN APPLIED TECHNOLOGY COLLEGE



PAVING IMPROVEMENTS

DFCM PROJECT NO. 10071250



RECOMMENDED FOR APPROVAL:

PROJECT ENGINEER — DATE 7/15/10

LICENSED PROFESSIONAL ENGINEER No. 146602 CRAIG E. JOHANSEN STATE OF UTAH

APPROVALS:

STATE OF UTAH DFCM — DATE 7/15/10

johansen & tuttle ENGINEERING INC.
BOX 487, CASTLE DALE, UTAH 84513 (435) 381-2523
FAX (435) 381-2522 email jt@etv.net

CODE ANALYSIS

APPLICABLE CODES	Year		Year
International Building Code	2009	National Electrical Code	
International Mechanical Code		Uniform Code for Building Conservation	
International Fuel Gas Code		ADA Accessibility Guildelines	2009
International Plumbing Code			
International Fire Code			
International Energy Conservation Code			

A. Occupancy and Group: _____ _____ _____ _____ _____

Change in Use: Yes _____ No _____ Mixed Occupancy: Yes _____ No _____

Special Use and Occupancy (e.g. High Rise, Covered Mall): _____

B. Seismic Design Category: _____ Design Wind Speed: _____ mph

C. Type of Construction (circle one):

I/A I/B II/A II/B III/A III/B IV/HT V/A V/B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: _____ South: _____ East: _____ West: _____

E. Mixed Occupancies: _____ Nonseparated Uses: _____

F: Sprinklers:

Required: _____ Provided: _____

Type of Sprinkler System (IBC 903.3.1)_____

G: Number of Stories: _____ Building Height: _____

H: Actual Area per Floor (square feet): _____

I: Tabular Area: (table 503): _____

J: Area Modifications:

a) $A_a = \left\{ A_t + \left[A_t \times I_f \right] + \left[A_t \times I_s \right] \right\}$ $I_f = \left[F/P - 0.25 \right] W / 30$

b) Sum of the Ratio Calculations for Mixed Occupancies:

$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$

c) Total Allowable Area for:

1) One Story: _____
2) Two Story: $A_a(2)$_____
3) Three Story: $A_a(3)$_____

d) Unlimited Area Building: Yes _____ No _____ Code Section: _____

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls			Floors - Ceiling Floors		
Interior Bearing Walls			Roofs - Ceiling Roofs		
Exterior Non-Bearing Walls			Exterior Doors and Windows		
Structural Frame			Shaft Enclosures		
Partitions - Permanent			Fire Walls		
Fire Barriers			Fire Partitions		
			Smoke Partitions		

L. Design Occupant Load: _____

Exit Width Required: _____ Exit Width Provided: _____

M. Minimum Number of Required Plumbing Facilities:

a) Water Closets - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
b) Urinals - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
c) Lavatories - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
d) Bath Tubs or Showers: _____
e) Drinking Fountains: _____ Service Sinks: _____

FOOTNOTES:

1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:

a) High Rise Requirements.
b) Atriums.
c) Performance Based Criteria.
d) Means or Egress Analysis.
e) Fire Assembly Locator Sheet.
f) Exterior and Interior Accessibility Route.
g) Fire Stopping, Including Tested Design Number.

INDEX TO SHEETS

SHEET	DESCRIPTION
1	TITLE SHEET
2	INDEX TO SHEETS
3	SUMMARY OF ITEMS
4	TYPICAL SECTIONS
5	DETAILS
5A	DETAILS, RESERVED PARKING
6	TRENCH DETAILS
7	PLAN VIEW WEST PARKING LOT
8	PAINTING PLAN WEST PARKING LOT
9	PLAN VIEW SOUTH PARKING LOT
10	PAINTING PLAN SOUTH PARKING LOT
11	SEWER PLAN AND PROFILE

GENERAL NOTES:

1. THESE DRAWINGS MEET THE CURRENT DFCM STANDARDS.
2. THESE DRAWINGS ARE BASED ON THE 2009 IBC AND THE ICC/ANSI A117.1-2003.
3. THIS PROJECT DOES NOT INVOLVE STRUCTURES.
4. THIS PROJECT ONLY INVOLVES EXTERIOR IMPROVEMENTS AND DOES NOT REQUIRE SPECIAL INSPECTIONS. JOHANSEN AND TUTTLE ENGINEERING WILL PROVIDE INSPECTIONS AND TESTING UNDER CONTRACT.
5. THIS PROJECT DOES NOT REQUIRE DEFERRED SUBMITTALS.

LICENSED PROFESSIONAL ENGINEER
No. 176602
CRAIG E. JOHANSEN
7/15/10
STATE OF UTAH

DESIGNED HRT 5-10	CHECKED LMS 5-10		
DRAWN LMS 5-10	CHECKED HRT 5-10		
SURVEYED BHT 5-10	CHECKED LMS 5-10		
R.O.W.	CHECKED		

phansen & tuttle ENGINEERING INC.
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STATE of UTAH DFCM
UINTAH BASIN APPLIED TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10071250

INDEX TO SHEETS

PROJECT NO. 10071250

SHEET NO. 2

SUMMARY OF ITEMS

ITEM	DESCRIPTION	UNIT	QUANTITY
1	MOBILIZATION	LUMP	1
2	HMA (1/2" MIX) 2" OVERLAY	SQ. FT.	41110
3	HMA (1/2" MIX) 3" THICK	SQ. FT.	3585
4	PAVING FABRIC (PETROMAT)	SQ. YD.	4570
5	TYPE II SLURRY SEAL	SQ. FT.	64820
6	ROTOMILL	SQ. FT.	2325
7	EXCAVATION	SQ. FT.	3585
8	UNTREATED BASE COURSE	SQ. FT.	3585
9	GRANULAR BORROW (3" MINUS)	SQ. FT.	3585
10	GRANULAR BORROW BACKFILL (3" MINUS)	CU. YD.	200
11	STABILIZATION FABRIC (COMBIGRID 30/30)	SQ. YD.	400
12	1 INCH DRAIN ROCK	CU. YD.	235
13	DRY SUMP	EACH	1
14	CONCRETE CURB BLOCK	EACH	20
15	6 INCH SEWER PIPE (D 3034)	FEET	350
16	2 WAY CLEANOUT	EACH	2
17	PAVEMENT MARKING PAINT	LUMP	1

LICENSED PROFESSIONAL ENGINEER
No. 161662
CRAIG E. JOHANSEN
7/15/10
STATE OF UTAH

DESIGNED	HRT	5-10	CHECKED LMS 5-10
DRAWN	LMS	5-10	CHECKED HRT 5-10
SURVEYED	BHT	5-10	CHECKED LMS 5-10
R.O.W.			CHECKED

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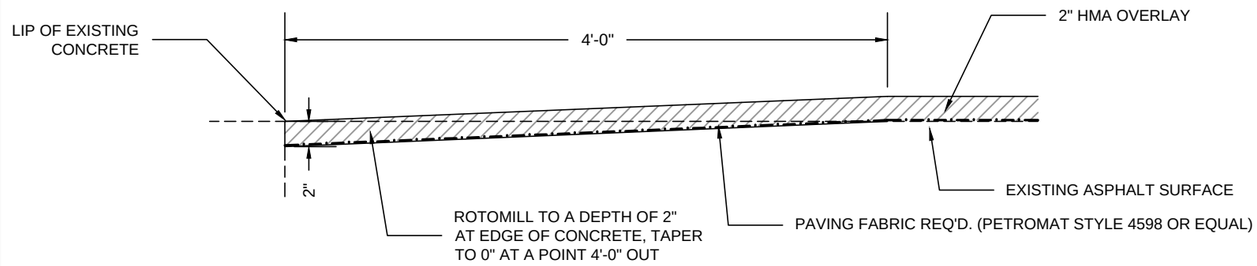
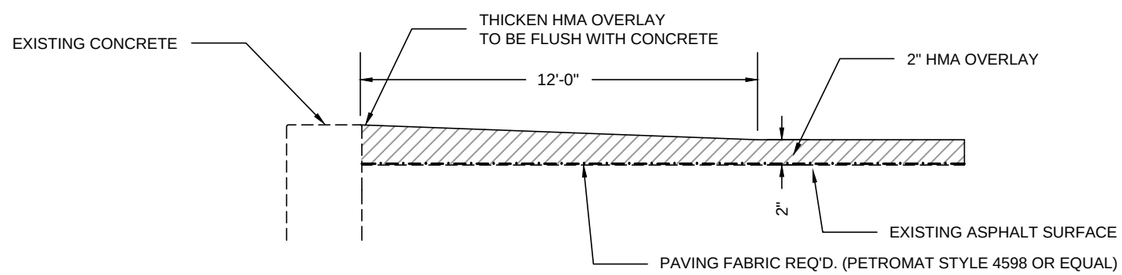
STATE of UTAH DFCM
UINTAH BASIN APPLIED
TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10071250

SUMMARY OF ITEMS

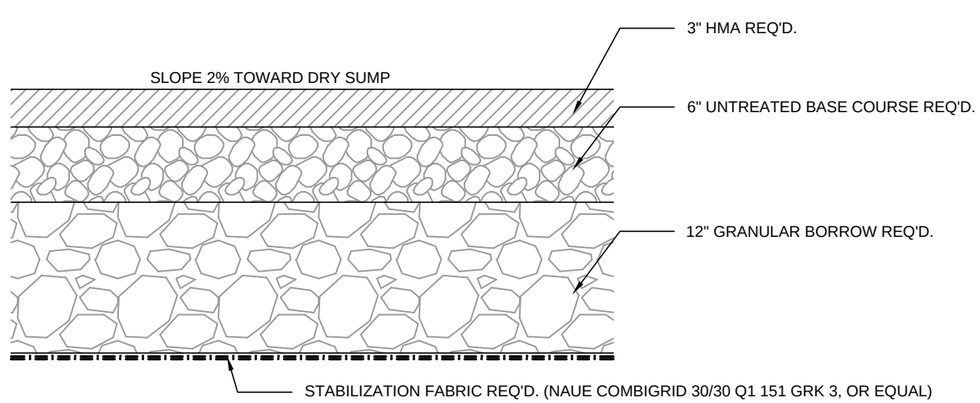
PROJECT NO.
10071250
SHEET NO.
3



TYPICAL SECTION A



TYPICAL SECTION B



TYPICAL SECTION C

DESIGNED	HRT	5-10	CHECKED LMS 5-10
DRAWN	LMS	5-10	CHECKED HRT 5-10
SURVEYED	BHT	5-10	CHECKED LMS 5-10
R.O.W.			CHECKED

johansen & tuttle ENGINEERING INC.
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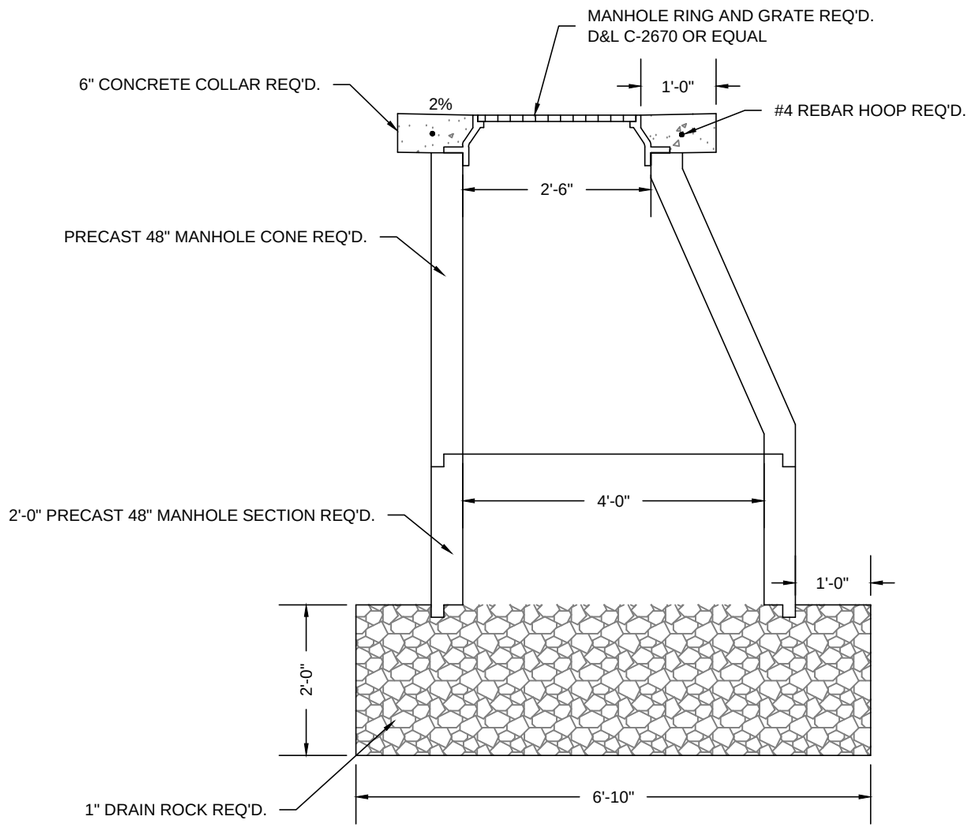
STATE of UTAH DFCM
UINTAH BASIN APPLIED TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10071250

TYPICAL SECTIONS

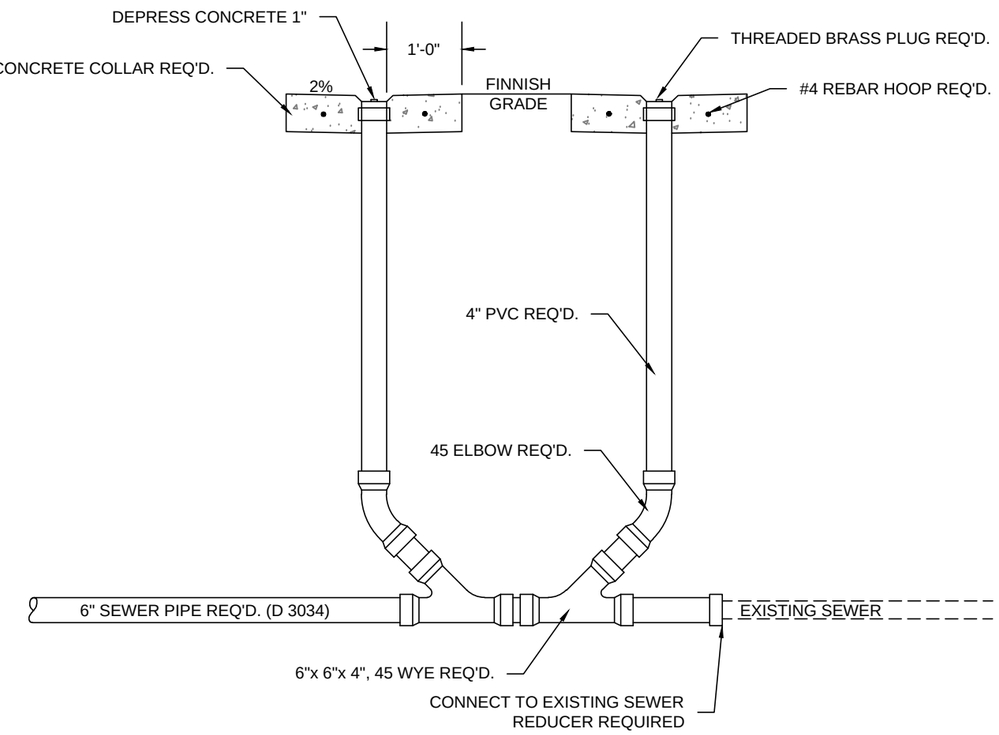
PROJECT NO. 10071250

SHEET NO. 4



DRY SUMP DETAIL

SEE SHEET 7 FOR LOCATION



2 WAY CLEANOUT DETAIL

SEE SHEET11 FOR LOCATIONS

LICENSED PROFESSIONAL ENGINEER
No. 146602
CRAIG E.
JOHANSEN
7/15/10
STATE OF UTAH

DESIGNED HRT	5-10	CHECKED LMS	5-10
DRAWN LMS	5-10	CHECKED HRT	5-10
SURVEYED BHT	5-10	CHECKED LMS	5-10
R.O.W.		CHECKED	

Johansen & Tuttle ENGINEERING INC.
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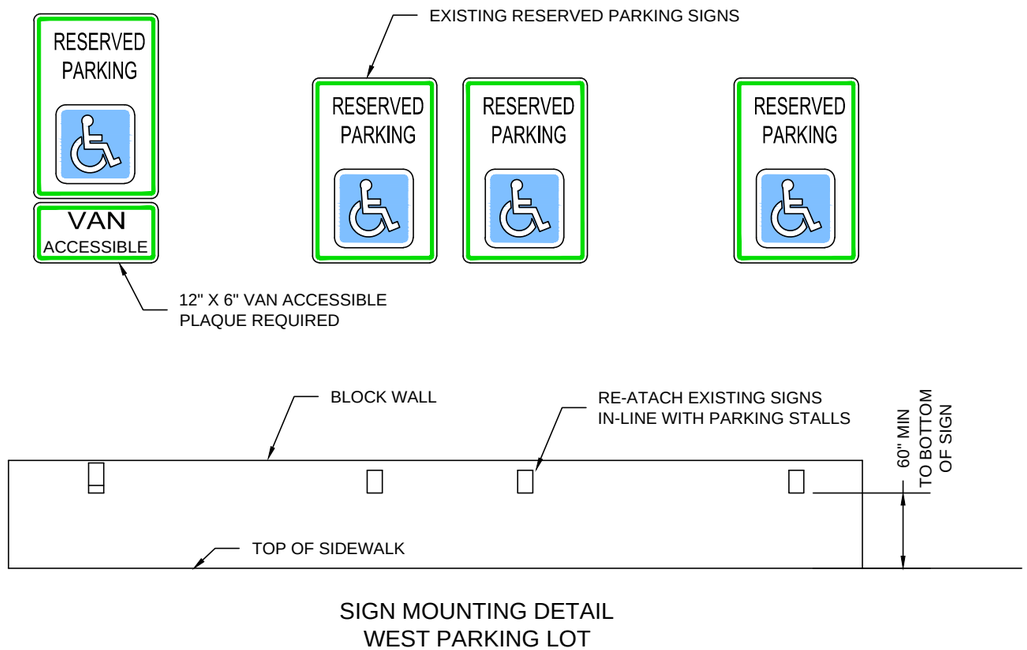
FAX (435) 381-2522 EMAIL jt@etv.net

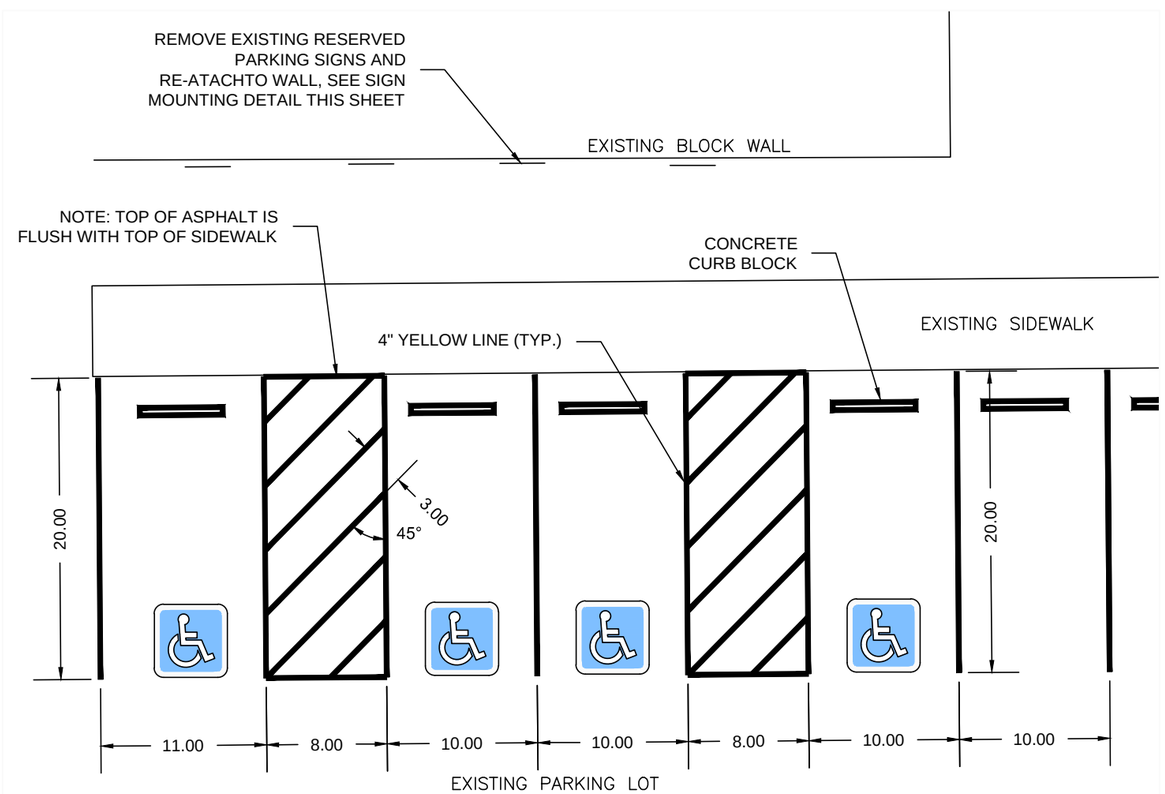
STATE of UTAH DFCM
UINTAH BASIN APPLIED
TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10071250

DETAILS

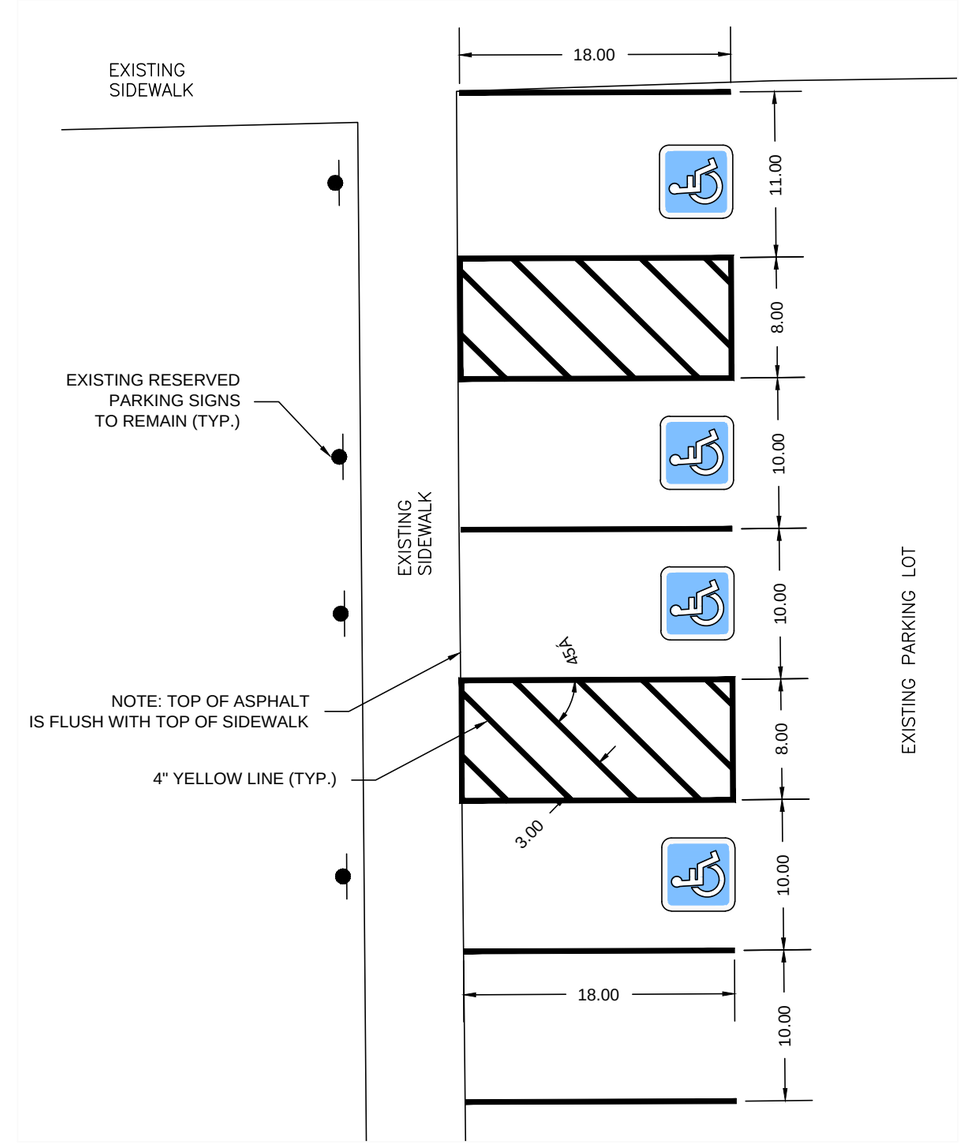
PROJECT NO.
10071250
SHEET NO.
5



SIGN MOUNTING DETAIL
WEST PARKING LOT



RESERVED PARKING DETAIL
WEST PARKING LOT



RESERVED PARKING DETAIL
SOUTH PARKING LOT

LICENSED PROFESSIONAL ENGINEER
No. 146602
CRAIG E. JOHANSEN
7/15/10
STATE OF UTAH

DESIGNED	HRT	3-10	CHECKED	LMS	3-10
DRAWN	LMS	3-10	CHECKED	HRT	3-10
SURVEYED	BHT	3-10	CHECKED	LMS	3-10
R.O.W.			CHECKED		

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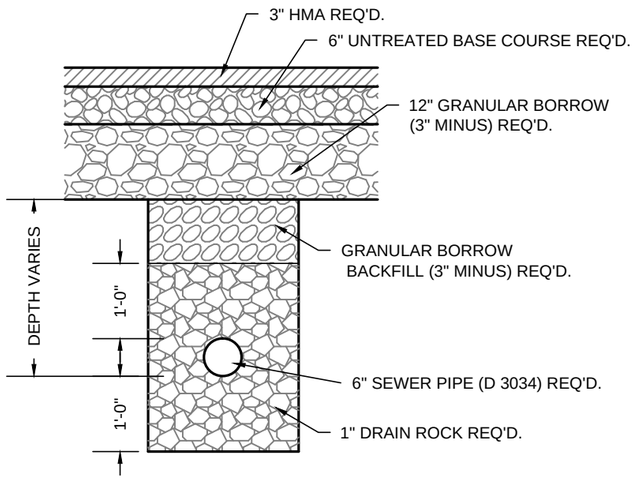
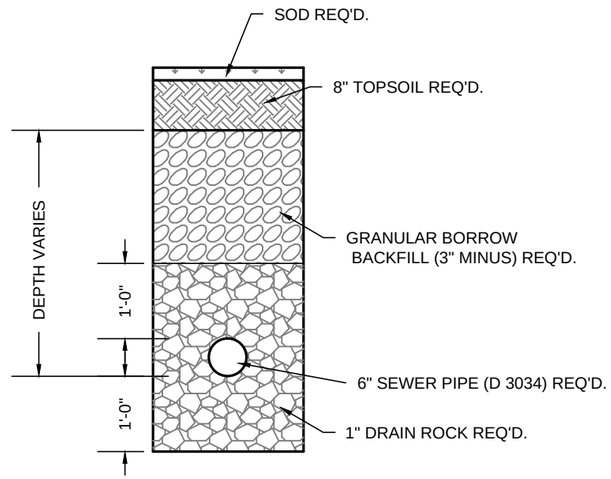
STATE of UTAH DFCM
UINTAH BASIN APPLIED TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10072150

DETAILS
RESERVED PARKING

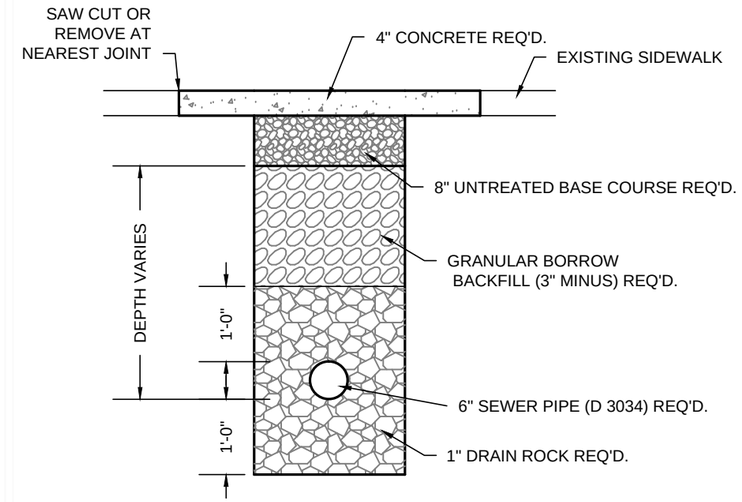
PROJECT NO.
10071250
SHEET NO.
5A



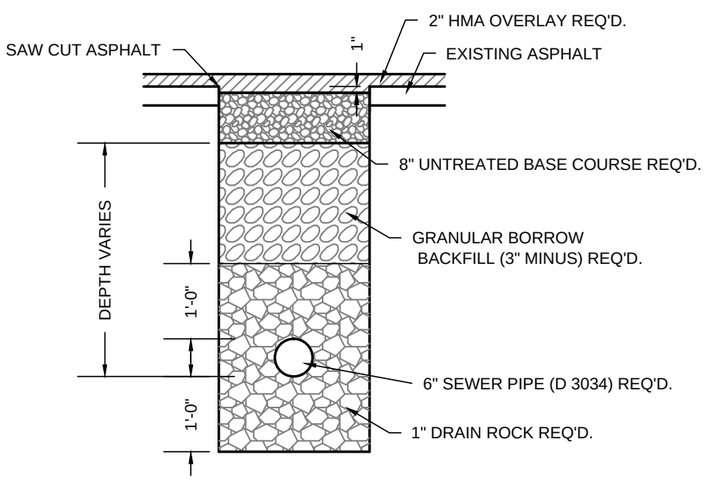
SEWER TRENCH DETAIL 1
STA. 0+00 TO STA. 0+66.05



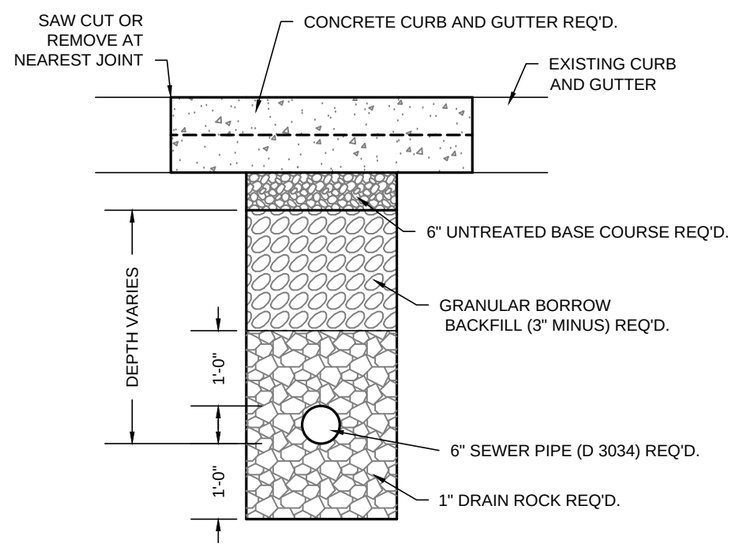
SEWER TRENCH DETAIL 2
STA. 0+66.05 TO STA. 0+74.51
STA. 273.65 TO STA. 2+99.85



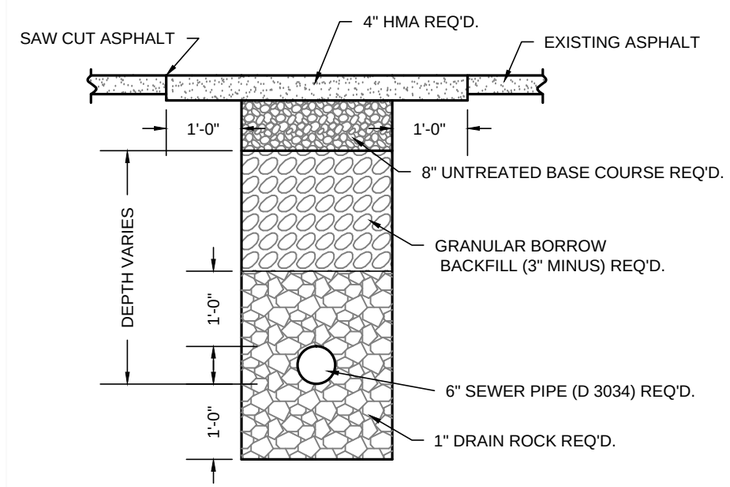
SEWER TRENCH DETAIL 3
STA. 0+74.51 TO STA. 0+80.51



SEWER TRENCH DETAIL 4
STA. 0+80.51 TO STA. 2+71.15



SEWER TRENCH DETAIL 5
STA. 2+71.15 TO STA. 2+73.65
STA. 2+99.85 TO STA. 3+02.35



SEWER TRENCH DETAIL 6
STA. 3+02.35 TO STA. 3+48.06

LICENSED PROFESSIONAL ENGINEER
No. 136602
CRAIG E. JOHANSEN
STATE OF UTAH
7/15/10

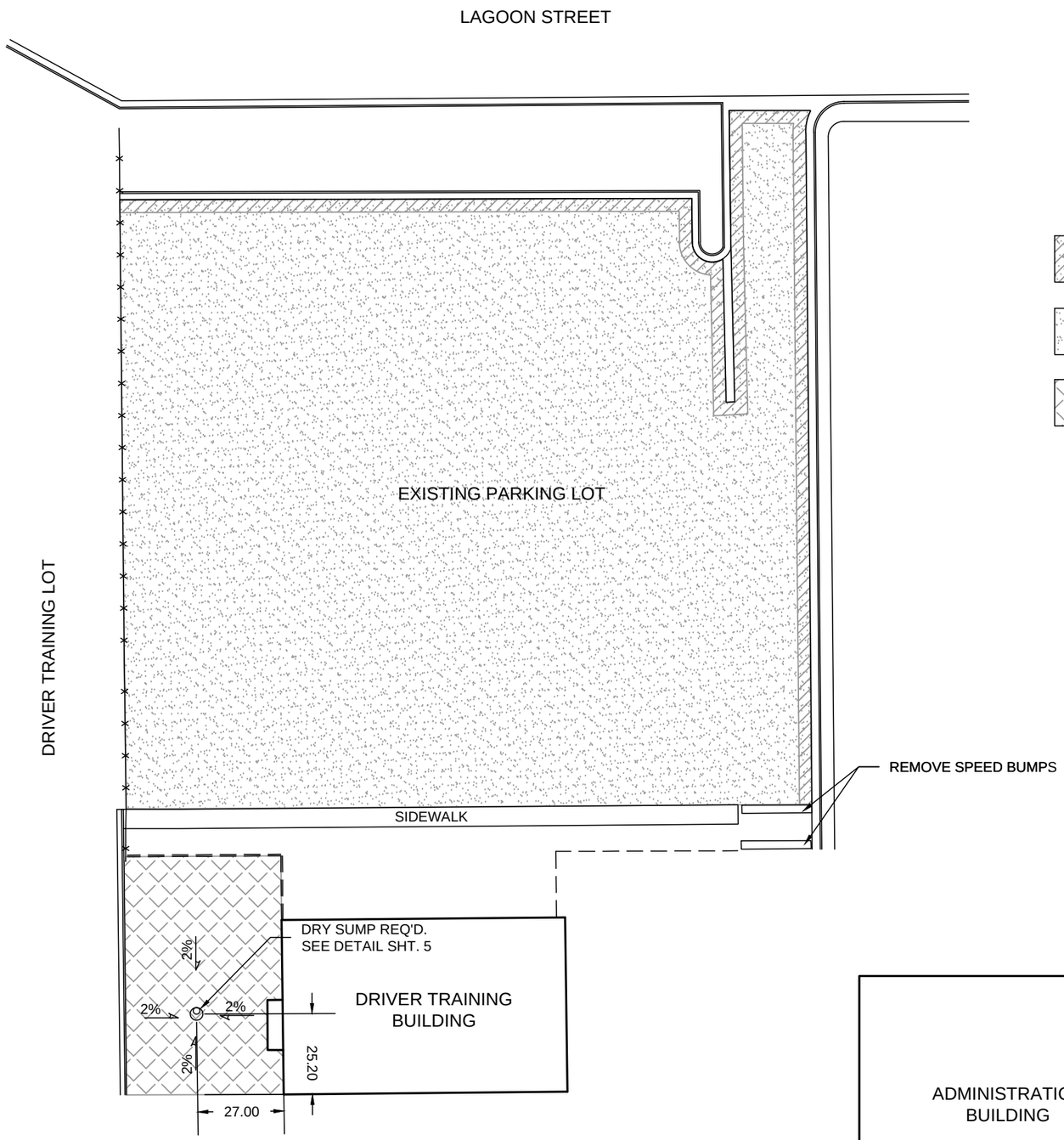
DESIGNED	HRT	5-10	CHECKED	LMS	5-10
DRAWN	LMS	5-10	CHECKED	HRT	5-10
SURVEYED	BHT	5-10	CHECKED	LMS	5-10
R.O.W.			CHECKED		

Johansen & Little ENGINEERING INC.
BOX 487, CASTLE DALE, UTAH 84513 (435) 381-2523
FAX (435) 381-2522 EMAIL jt@etv.net

STATE of UTAH DFCM
UINTAH BASIN APPLIED TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10071250

TRENCH DETAILS

PROJECT NO. 10071250
SHEET NO. 6



SEE TYPICAL SECTION A

SEE TYPICAL SECTION B

SEE TYPICAL SECTION C

N

SCALE: 1"=40'

LICENSED PROFESSIONAL ENGINEER
No. 161602
CRAIG E. JOHANSEN
7/15/10
STATE OF UTAH

DESIGNED	HRT	3-10	CHECKED LMS 3-10
DRAWN	LMS	3-10	CHECKED HRT 3-10
SURVEYED	BHT	3-10	CHECKED LMS 3-10
R.O.W.			CHECKED

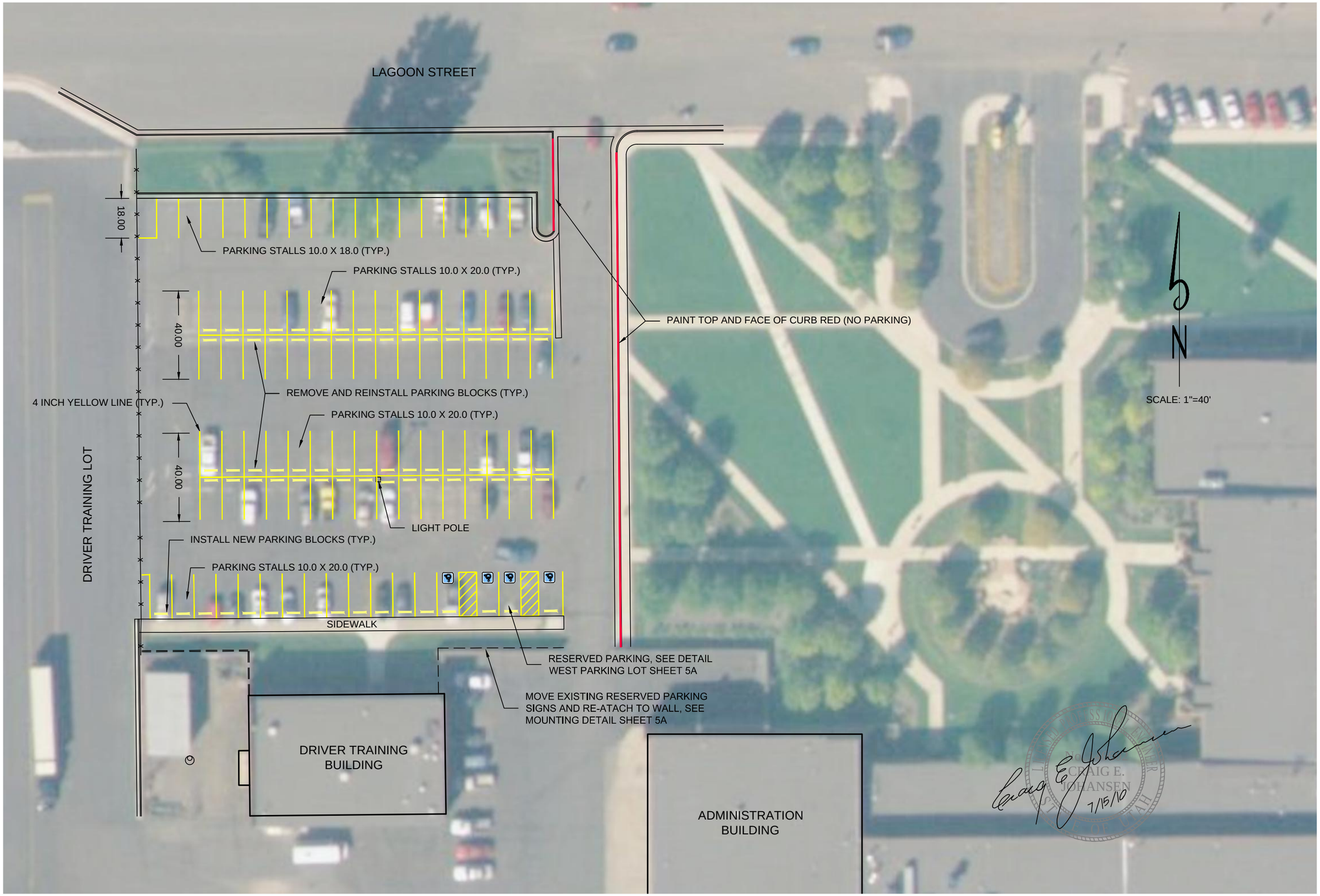
johansen & tuttle ENGINEERING INC.
BOX 487, CASTLE DALE, UTAH 84513 (435) 381-2523
FAX (435) 381-2522 EMAIL j-t@etv.net

STATE of UTAH DFCM
UINTAH BASIN APPLIED
TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10072150

PLAN VIEW
WEST PARKING LOT

PROJECT NO.
10071250

SHEET NO.
7



DESIGNED	HRT	3-10	CHECKED	LMS 3-10
DRAWN	LMS	3-10	CHECKED	HRT 3-10
SURVEYED	BHT	3-10	CHECKED	LMS 3-10
R.O.W.			CHECKED	

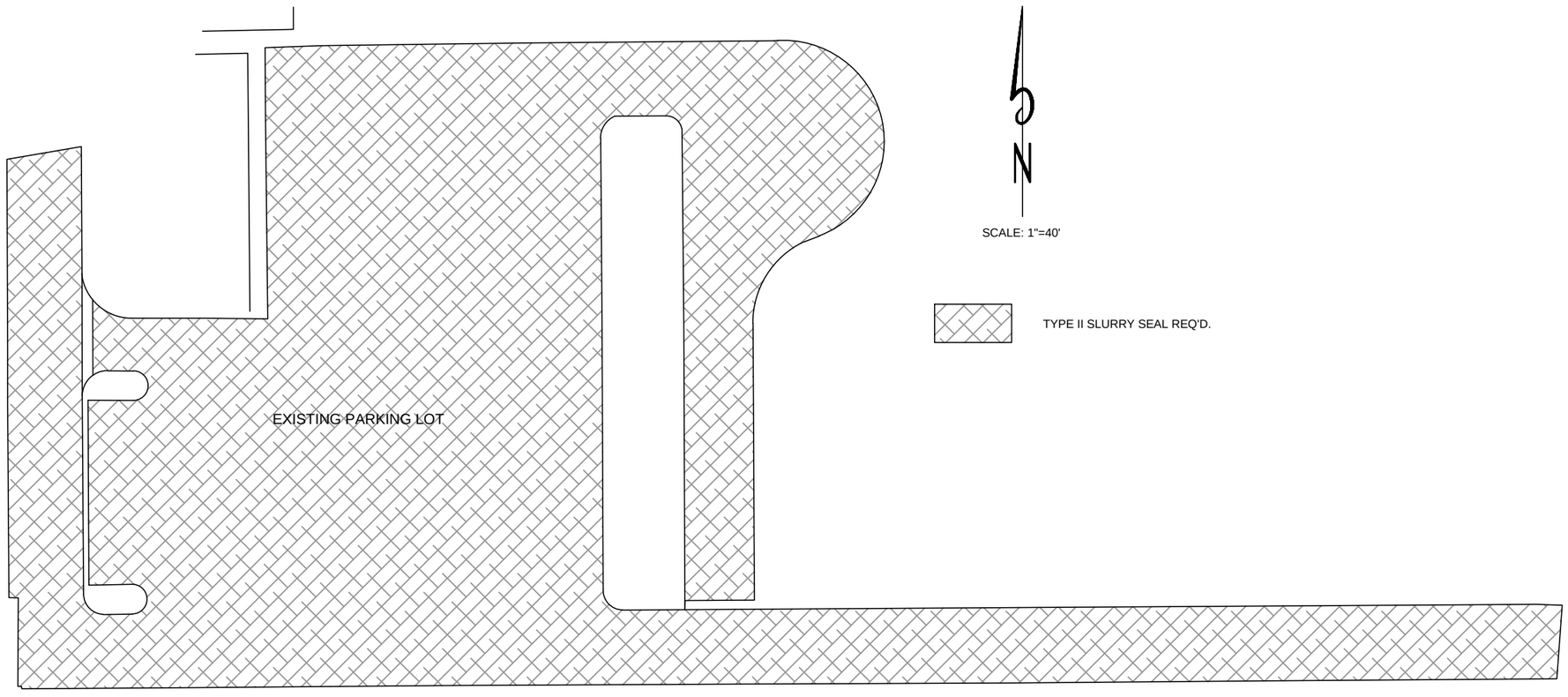
johansen & tuttle ENGINEERING INC.
BOX 487, CASTLE DALE, UTAH 84513 (435) 381-2523
FAX (435) 381-2522 EMAIL j@etv.net

STATE of UTAH DFCM
UINTAH BASIN APPLIED
TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10072150

PAINTING PLAN
WEST PARKING LOT

PROJECT NO.
10071250

SHEET NO.
8



N

SCALE: 1"=40'

TYPE II SLURRY SEAL REQ'D.

LICENSED PROFESSIONAL ENGINEER
No. 161662
CRAIG E. JOHANSEN
7/15/10
STATE OF UTAH

DESIGNED	HRT	3-10	CHECKED LMS 3-10
DRAWN	LMS	3-10	CHECKED HRT 3-10
SURVEYED	BHT	3-10	CHECKED LMS 3-10
R.O.W.			CHECKED

phansen & tuttle ENGINEERING INC.
BOX 487, CASTLE DALE, UTAH 84513 (435) 381-2523
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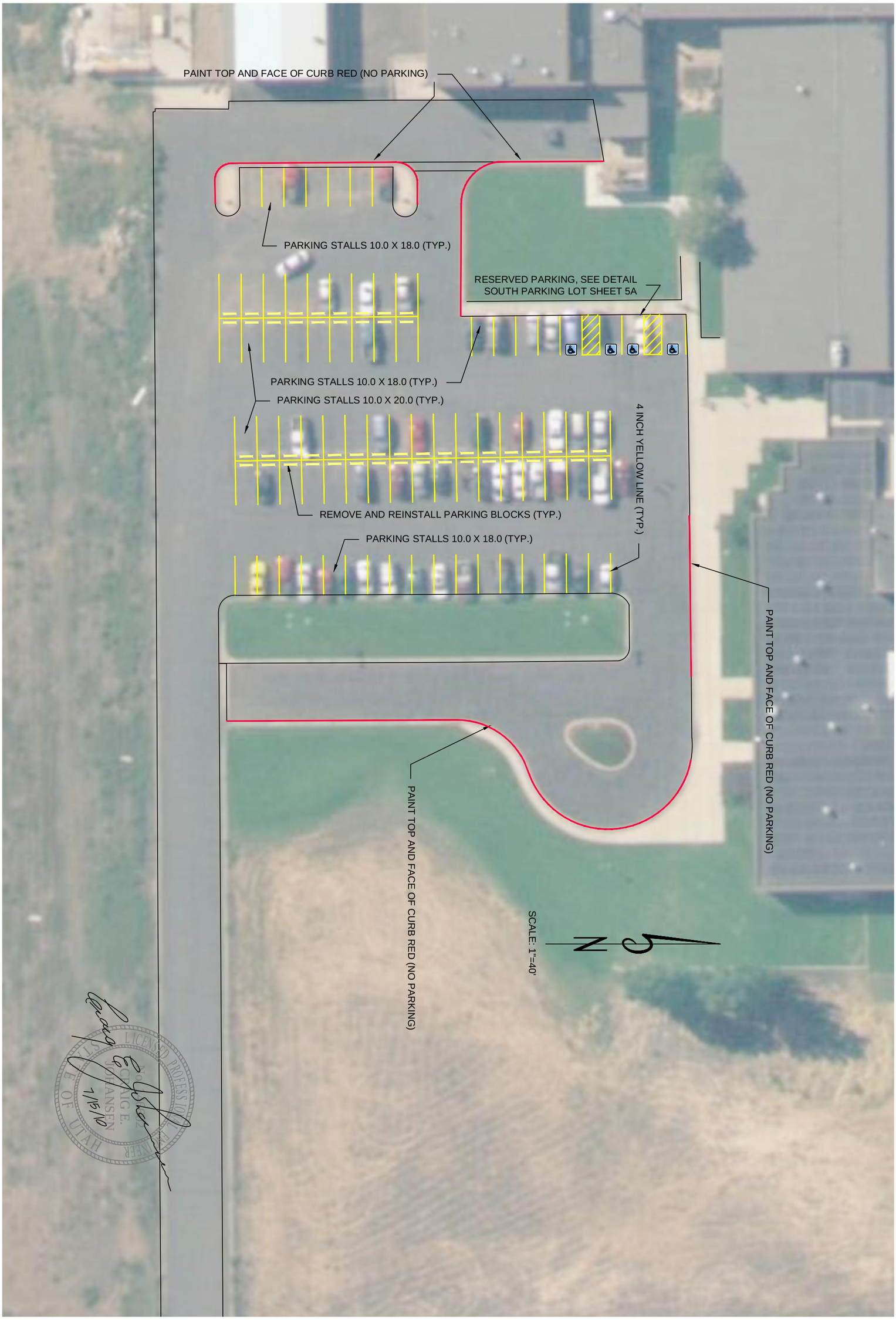
STATE of UTAH DFCM
UINTAH BASIN APPLIED
TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10072150

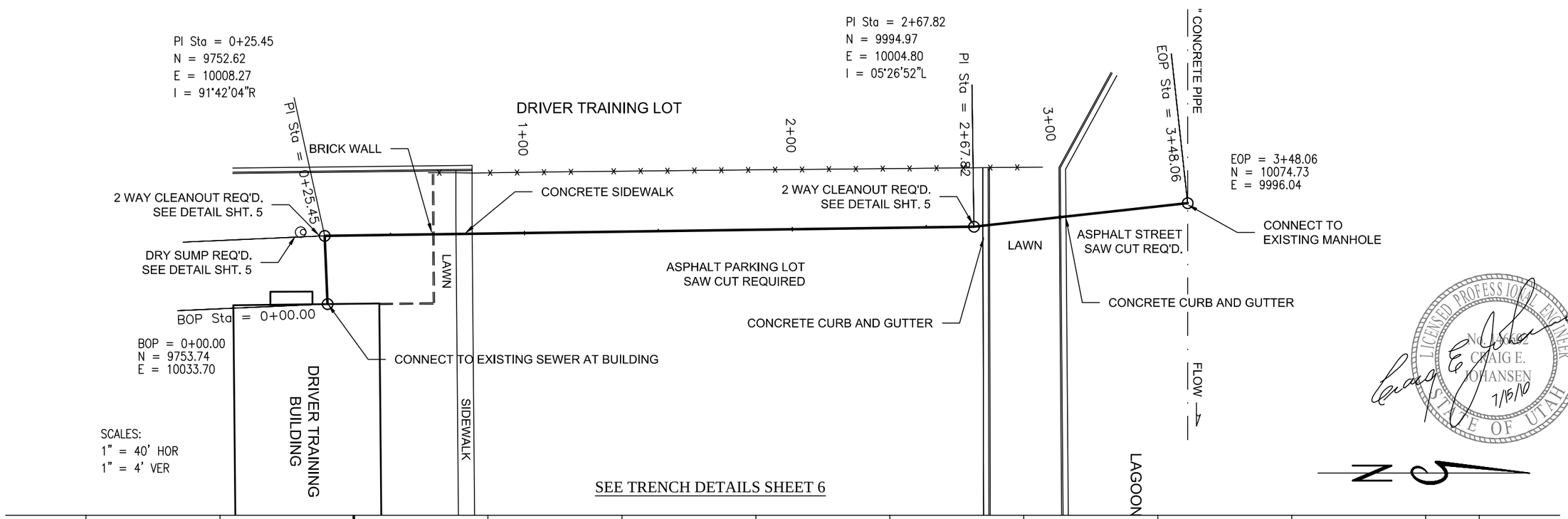
PLAN VIEW
SOUTH PARKING LOT

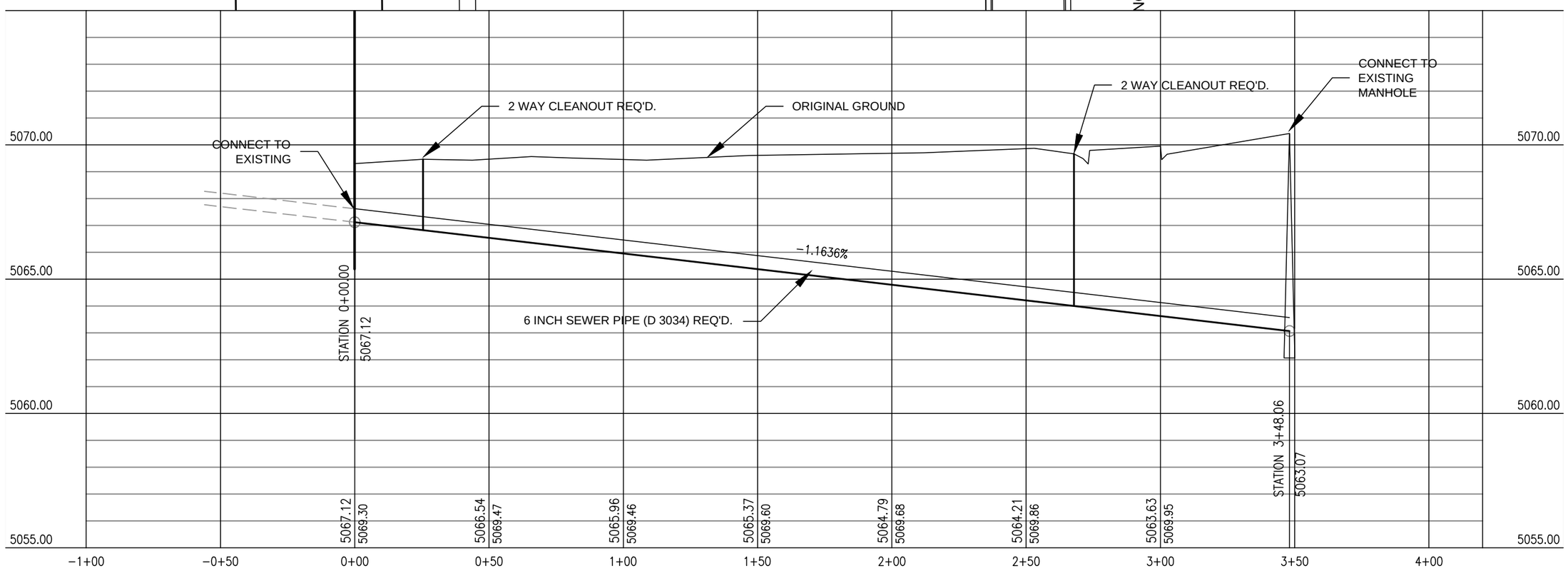
PROJECT NO.
10071250

SHEET NO.
9



PROJECT NO. 10071250	PAINTING PLAN SOUTH PARKING LOT		STATE of UTAH DFCM UINTAH BASIN APPLIED TECHNOLOGY COLLEGE PAVING IMPROVEMENTS PROJECT No. 10072150	johansen & tuttle ENGINEERING INC. BOX 487, CASTLE DALE, UTAH 84513 (435) 381-2523 FAX (435) 381-2522 EMAIL jt@etv.net	DESIGNED HRT	3-10	CHECKED LMS	3-10
SHEET NO. 10					DRAWN LMS	3-10	CHECKED HRT	3-10
					SURVEYED BHT	3-10	CHECKED LMS	3-10
					R.O.W.		CHECKED	





DESIGNED	HRT	3-10	
DRAWN	LMS	3-10	CHECKED LMS 3-10
SURVEYED	BHT	3-10	CHECKED HRT 3-10
R.O.W.			CHECKED LMS 3-10
			CHECKED

johansen & tuttle ENGINEERING INC.
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FAX (435) 381-2522 email jt@etv.net

STATE of UTAH DFCM
UINTAH BASIN APPLIED
TECHNOLOGY COLLEGE
PAVING IMPROVEMENTS
PROJECT No. 10072150

SEWER PLAN & PROFILE

PROJECT NO.
10071250

SHEET NO.
11